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# FARMERS AND FARM PRODUCTION IN THE UNITED STATES

(A COOPERATIVE REPORT)

Tobacco and Peanut Producers  
and Production



## SPECIAL REPORTS



# 1954 Census of Agriculture

U. S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS

U. S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE

WASHINGTON • 1956



U. S. Department of Agriculture  
Ezra Taft Benson, *Secretary*

Agricultural Research Service  
Byron T. Shaw, *Administrator*

U. S. Department of Commerce  
Sinclair Weeks, *Secretary*

Bureau of the Census  
Robert W. Burgess, *Director*

# United States Census of Agriculture: 1954

Volume III

**SPECIAL REPORTS**

Part 9

**Farmers and Farm Production in the United States**  
(A Cooperative Report)

Chapter III

Tobacco and Peanut  
Producers and Production

**CHARACTERISTICS OF FARMERS and FARM PRODUCTION •**

**PRINCIPAL TYPES OF FARMS •**





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## PREFACE

The purpose of this report is to present an analysis of the characteristics of farmers and farm production for the most important types of farms as shown by data for the 1954 Census of Agriculture. The analysis deals with the relative importance, pattern of resource use, some measures of efficiency, and problems of adjustment and change for the principal types of farms.

The data given in the various chapters of this report have been derived largely from the special tabulation of data for each type of farm, by economic class, for the 1954 Census of Agriculture. The detailed statistics for each type of farm for the United States and the principal subregions appear in Part 8 of Volume III of the reports for the 1954 Census of Agriculture.

This cooperative report was prepared under the direction of Ray Hurley, Chief of the Agriculture Division of the Bureau of the Census, U. S. Department of Commerce, and Kenneth L. Bachman, Head, Production, Income, and Costs Section, Production Economics Research Branch, Agricultural Research Service of the U. S. Department of Agriculture.

Jackson V. McElveen, Agricultural Economist, Production, Income, and Costs Section, Production Economics Research Branch, Agricultural Research Service of the U. S. Department of Agriculture, supervised a large part of the detailed planning and analysis for the various chapters.

The list of chapters and the persons preparing each chapter are as follows:

Chapter I.....	Wheat Producers and Wheat Production A. W. Epp, University of Nebraska.	Chapter VI....	Western Stock Ranches and Livestock Farms Mont H. Saunderson, Western Ranching and Lands Consultant, Bozeman, Mont.
Chapter II.....	Cotton Producers and Cotton Production Robert B. Glasgow, Production Economics Research Branch, Agricultural Research Service, United States Department of Agriculture.	Chapter VII...	Cash-grain and Livestock Producers in the Corn Belt Edwin G. Strand, Production Economics Research Branch, Agricultural Research Service, United States Department of Agriculture.
Chapter III....	Tobacco and Peanut Producers and Production R. E. L. Greene, University of Florida.	Chapter VIII..	Part-time Farming H. G. Halerow, University of Connecticut.
Chapter IV....	Poultry Producers and Poultry Production William P. Mortenson, University of Wisconsin.	Chapter IX....	Agricultural Producers and Production in the United States— A General View Jackson V. McElveen, Production Economics Research Branch, Agricultural Research Service, United States Department of Agriculture.
Chapter V.....	Dairy Producers and Dairy Production P. E. McNall, University of Wisconsin.		

The editorial work for this report was performed by Caroline B. Sherman, and the preparation of the statistical tables was supervised by Margaret Wood.

December 1956

# UNITED STATES CENSUS OF AGRICULTURE: 1954

## REPORTS

**Volume I.—Counties and State Economic Areas.** Statistics for counties include number of farms, acreage, value, and farm operators; farms by color and tenure of operator; facilities and equipment; use of commercial fertilizer; farm labor; farm expenditures; livestock and livestock products; specified crops harvested; farms classified by type of farm and by economic class; and value of products sold by source.

Data for State economic areas include farms and farm characteristics by tenure of operator, by type of farm, and by economic class. Volume I is published in 33 parts.

**Volume II.—General Report.** Statistics by Subjects, United States Census of Agriculture, 1954. Summary data and analyses of the data for States, for Geographic Divisions, and for the United States by subjects.

### Volume III.—Special Reports

**Part 1.—Multiple-Unit Operations.** This report will be similar to Part 2 of Volume V of the reports for the 1950 Census of Agriculture. It will present statistics for approximately 900 counties and State economic areas in 12 Southern States and Missouri for the number and characteristics of multiple-unit operations and farms in multiple units.

**Part 2.—Ranking Agricultural Counties.** This special report will present statistics for selected items of inventory and agricultural production for the leading counties in the United States.

**Part 3.—Alaska, Hawaii, Puerto Rico, District of Columbia, and U. S. Possessions.** These areas were not included in the 1954 Census of Agriculture. The available current data from various Government sources will be compiled and published in this report.

**Part 4.—Agriculture, 1954, a Graphic Summary.** This report will present graphically some of the significant facts regarding agriculture and agricultural production as revealed by the 1954 Census of Agriculture.

**Part 5.—Farm-Mortgage Debt.** This will be a cooperative study by the Agricultural Research Service of the U. S. Department of Agriculture and the Bureau of the Census. It will present, by States, data based on the 1954 Census of Agriculture and a special mail survey conducted in January 1956, on the number of mortgaged farms, the amount of mortgage debt, and the amount of debt held by principal lending agencies.

**Part 6.—Irrigation in Humid Areas.** This cooperative report by the Agricultural Research Service of the U. S. Department of Agriculture and the Bureau of the Census will present data obtained by a mail survey of operators of irrigated farms in 28 States on the source of water, method of applying water, number of pumps used, acres of crops irrigated in 1954 and 1955, the number of times each crop was irrigated, and the cost of irrigation equipment and the irrigation system.

**Part 7.—Popular Report of the 1954 Census of Agriculture.** This report is planned to be a general, easy-to-read publication for the general public on the status and broad characteristics of United States agriculture. It will seek to delineate such aspects of agriculture as the geographic distribution and differences by size of farm for such items as farm acreage, principal crops, and important kinds of livestock, farm facilities, farm equipment, use of fertilizer, soil conservation practices, farm tenure, and farm income.

**Part 8.—Size of Operation by Type of Farm.** This will be a cooperative special report to be prepared in cooperation with the Agricultural Research Service of the U. S. Department of Agriculture. This report will contain data for 119 economic sub-

regions (essentially general type-of-farming areas) showing the general characteristics for each type of farm by economic class. It will provide data for a current analysis of the differences that exist among groups of farms of the same type. It will furnish statistical basis for a realistic examination of production of such commodities as wheat, cotton, and dairy products in connection with actual or proposed governmental policies and programs.

**Part 9.—Farmers and Farm Production in the United States.** The purpose of this report is to present an analysis of the characteristics of farmers and farm production for the most important types of farms as shown by data for the 1954 Census of Agriculture. The analysis deals with the relative importance, pattern of resource use, some measures of efficiency, and problems of adjustment and change for the principal types of farms. The report was prepared in cooperation with the Agricultural Research Service of the U. S. Department of Agriculture.

The list of chapters (published separately only) and title for each chapter are as follows:

- Chapter I—*Wheat Producers and Wheat Production*
- II—*Cotton Producers and Cotton Production*
- III—*Tobacco and Peanut Producers and Production*
- IV—*Poultry Producers and Poultry Production*
- V—*Dairy Producers and Dairy Production*
- VI—*Western Stock Ranches and Livestock Farms*
- VII—*Cash-Grain and Livestock Producers in the Corn Belt*
- VIII—*Part-Time Farming*
- IX—*Agricultural Producers and Production in the United States—A General View*

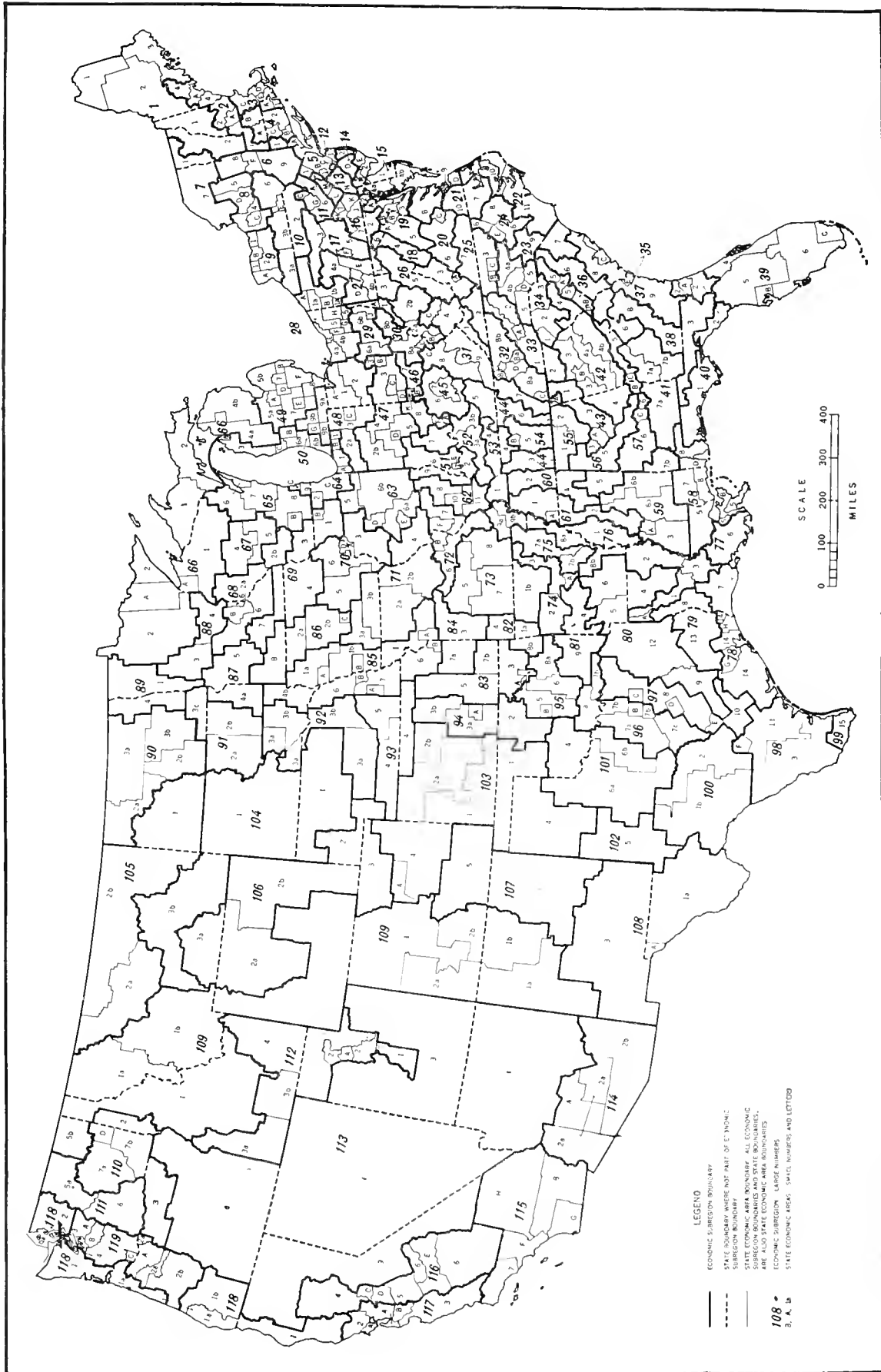
**Part 10.—Use of Fertilizer and Lime.** The purpose of this report is to present in one publication most of the detailed data compiled for the 1954 Census of Agriculture regarding the use of fertilizer and lime. The report presents data for counties, State economic areas, and generalized type-of-farming areas regarding the quantity used, acreage on which used, and expenditures for fertilizer and lime. The Agricultural Research Service cooperated with the Bureau of the Census in the preparation of this report.

**Part 11.—Farmers' Expenditures.** This report presents detailed data on expenditures for a large number of items used for farm production in 1955, and on the living expenditures of farm operators' families. The data were collected and compiled cooperatively by the Agricultural Marketing Service of the U. S. Department of Agriculture and the Bureau of the Census.

**Part 12.—Methods and Procedures.** This report contains an outline and a description of the methods and procedures used in taking and compiling the 1954 Census of Agriculture.

# INTRODUCTION

ECONOMIC SUBREGIONS AND STATE ECONOMIC AREAS



DEPARTMENT OF CONSERVATION

# INTRODUCTION

**Purpose and scope.**—American agriculture is exceedingly diverse and is undergoing revolutionary changes. Farmers and their families obtain their income by producing a large variety of products under a large variety of conditions as well as from sources other than farming. The organization of production, type of farming, productivity, income, expenditures, size, and characteristics of operators of the 4.8 million farms in the United States vary greatly. Agriculture has been a dynamic, moving, adjusting part of our economy. Basic changes in farming have been occurring and will continue to be necessary. Adjustments brought by technological change, by changing consumer wants, by growth of population, and by changes in the income of nonfarm people, have been significant forces in changing agriculture since World War II. The transition from war to an approximate peacetime situation has also made it necessary to reduce the output of some farm products. Some of the adjustments in agriculture have not presented relatively difficult problems as they could be made by the transfer of resources from the production of one product to another. Others require substantial shifts in resources and production.

Moreover, a considerable number of farm families, many of whom are employed full time in agriculture, have relatively low incomes. Most of these families operate farms that are small when compared with farms that produce higher incomes. The acreage of land and the amount of capital controlled by the operators of these small farms are too small to provide a very high level of income. In recent years, many farm families on these small farms have made adjustments by leaving the farm to earn their incomes elsewhere, by discontinuing their farm operations, and by earning more non-farm income while remaining on the farm or on the place they farmed formerly.

One objective of this report is to describe and analyze some of the existing differences and recent adjustments in the major types of farming and farm production. For important commodities and groups of farms, the report aims to make available, largely from the detailed data for the 1954 Census of Agriculture but in a more concise form, facts regarding the size of farms, capital, labor, and land resources on farms, amounts and sources of farm income and expenditures, combinations of crop and livestock enterprises, adjustment problems, operator characteristics, and variation in use of resources and in size of farms by areas and for widely differing production conditions. Those types of farms on which production of surplus products is important have been emphasized. The report will provide a factual basis for a better understanding of the widespread differences among farms in regard to size, resources, and income. It will also provide a basis for evaluating the effects of existing and proposed farm programs on the production and incomes of major types and classes of farms.

Income from nonfarm sources is important on a large number of farms. About 1.4 million of the 4.8 million farm-operator families, or about 3 in 10, obtain more income from off-farm sources than from the sale of agricultural products. More than three-fourths of a million farm operators live on small-scale part-time farms and ordinarily are not dependent on farming as the main source of family income. These part-time farmers have a quite different relation to adjustments, changes, and farm problems than do commercial farmers. A description of and facts regarding these part-time farms and the importance of nonfarm income for commercial farms are presented in Chapter 8.

Except for Chapter 8, this report deals with commercial farms (see economic class of farm). The analysis is limited to the major types of agricultural production and deals primarily with geographic areas in which each of the major types of agricultural production has substantial significance.

**Source of data.**—Most of the data presented in this report are from special compilations made for the 1954 Census of Agriculture, although pertinent data from research findings and surveys of the U. S. Department of Agriculture, State Agricultural Colleges, and other agencies have been used to supplement Census data. The detailed Census data used for this report are contained in Part 8 of Volume III of the reports of the 1954 Census of Agriculture. Reference should be made to that report for detailed explanations and definitions and statements regarding the characteristics and reliability of the data.

**Areas for which data are presented.**—Data are presented in this report primarily for selected economic subregions and for the United States. The boundaries of the 119 subregions used for the compilation of data on which this report is based are indicated by the map on page vi. These subregions represent primarily general type-of-farming areas. Many of them extend into two or more States. (For a more detailed description of economic subregions, see the publication "Economic Subregions of the United States, Series Census BAE; No. 19, published cooperatively by the Bureau of the Census, and the Bureau of Agricultural Economics, U. S. Department of Agriculture, July 1953.)

## DEFINITIONS AND EXPLANATIONS

Definitions and explanations are given only for some of the more important items. For more detailed definitions and explanations, reference can be made to Part 8 of Volume III and to Volume II of the reports of the 1954 Census of Agriculture.

**A farm.**—For the 1954 Census of Agriculture, places of 3 or more acres were counted as farms if the annual value of agricultural products, exclusive of home-garden products, amounted to \$150 or more. The agricultural products could have been either for home use or for sale. Places of less than 3 acres were counted as farms only if the annual value of sales of agricultural products amounted to \$150 or more. Places for which the value of agricultural products for 1954 was less than these minima because of crop failure or other unusual conditions, and places operated at the time of the Census for the first time were counted as farms if normally they could be expected to produce these minimum quantities of agricultural products.

All the land under the control of one person or partnership was included as one farm. Control may have been through ownership, or through lease, rental, or cropping arrangement.

**Farm operator.**—A "farm operator" is a person who operates a farm, either performing the labor himself or directly supervising it. He may be an owner, a hired manager, or a tenant, renter, or sharecropper. If he rents land to others or has land cropped for him by others, he is listed as the operator of only that land which he retains. In the case of a partnership, only one partner was included as the operator. The number of farm operators is considered the same as the number of farms.

**Farms reporting or operators reporting.**—Figures for farms reporting or operators reporting, based on a tabulation of all farms, represent the number of farms, or farm operators, for which the specified item was reported. For example, if there were 11,922 farms in a subregion and only 11,465 had chickens over 4 months old on hand, the number of farms reporting chickens would be 11,465. The difference between the total number of farms and the number of farms reporting an item represents the number of farms not having that item, provided the inquiry was answered completely for all farms.

**Farms by type.**—The classification of commercial farms by type was made on the basis of the relationship of the value of sales from a particular source, or sources, to the total value of all farm products sold from the farm. In some cases, the type of farm was determined on the basis of the sale of an individual farm product, such as cotton, or on the basis of the sales of closely related products, such as dairy products. In other cases, the type of farm was determined on the basis of sales of a broader group of products, such as grain crops including corn, sorghums, all small grains, field peas, field beans, cowpeas, and soybeans. In order to be classified as a particular type, sales or anticipated sales of a product or group of products had to represent 50 percent or more of the total value of products sold.

The types of commercial farms for which data are shown, together with the product or group of products on which the classification is based are:

<i>Type of farm</i>	<i>Product or group of products amounting to 50 percent or more of the value of all farm products sold</i>
Cash-grain.....	Corn, sorghum, small grains, field peas, field beans, cowpeas, and soybeans.
Cotton.....	Cotton (lint and seed).
Other field-crop.....	Peanuts, Irish potatoes, sweet-potatoes, tobacco, sugarcane, sugar beets for sugar, and other miscellaneous crops.
Vegetable.....	Vegetables.
Fruit-and-nut.....	Berries and other small fruits, and tree fruits, nuts, and grapes.
Dairy.....	Milk and other dairy products. The criterion of 50 percent of the total sales was modified in the case of dairy farms. A farm for which the value of sales of dairy products represented less than 50 percent of the total value of farm products sold was classified as a dairy farm if— (a) Milk and other dairy products accounted for 30 percent or more of the total value of products sold, and (b) Milk cows represented 50 percent or more of all cows, and (c) Sales of dairy products, together with the sales of cattle and calves, amounted to 50 percent or more of the total value of farm products sold.
Poultry.....	Chickens, eggs, turkeys, and other poultry products.
Livestock farms other than dairy and poultry.	Cattle, calves, hogs, sheep, goats, wool, and mohair, provided the farm did not qualify as a dairy farm.

<i>Type of farm</i>	<i>Product or group of products amounting to 50 percent or more of the value of all farm products sold</i>
General.....	Farms were classified as general when the value of products from one source or group of sources did not represent as much as 50 percent of the total value of all farm products sold. Separate figures are given for three kinds of general farms: (a) Primarily crop. (b) Primarily livestock. (c) Crop and livestock.  <i>Primarily crop farms</i> are those for which the sale of one of the following crops or groups of crops—vegetables, fruits and nuts, cotton, cash grains, or other field crops—did not amount to 50 percent or more of the value of all farm products sold, but for which the value of sales for all these groups of crops represented 70 percent or more of the value of all farm products sold.  <i>Primarily livestock farms</i> are those which could not qualify as dairy farms, poultry farms, or livestock farms other than dairy and poultry, but on which the sale of livestock and poultry and livestock and poultry products amounted to 70 percent or more of the value of all farm products sold.  <i>General crop and livestock farms</i> are those which could not be classified as either crop farms or livestock farms, but on which the sale of all crops amounted to at least 30 percent but less than 70 percent of the total value of all farm products sold.  <i>Miscellaneous</i> ..... This group of farms includes those that had 50 percent or more of the total value of products accounted for by sale of horticultural products, or sale of horses, or sale of forest products.

**Farms by economic class.**—A classification of farms by economic class was made for the purpose of segregating groups of farms that are somewhat alike in their characteristics and size of operation. This classification was made in order to present an accurate description of the farms in each class and in order to provide basic data for an analysis of the organization of agriculture.

The classification of farms by economic class was made on the basis of three factors; namely, total value of all farm products sold, number of days the farm operator worked off the farm, and the relationship of the income received from nonfarm sources by the operator and members of his family to the value of all farm products sold. Farms operated by institutions, experiment stations, grazing associations, and community projects were classified as abnormal, regardless of any of the three factors.

For the purpose of determining the code for economic class and type of farm, it was necessary to obtain the total value of farm products sold as well as the value of some individual products sold.

The total value of farm products sold was obtained by adding the reported or estimated values for all products sold from the farm. The value of livestock, livestock products except wool and mohair, vegetables, nursery and greenhouse products, and forest

products was obtained by the enumerator from the farm operator for each farm. The enumerator also obtained from the farm operator the quantity sold for corn, sorghums, small grains, hays, and small fruits. The value of sales for these crops was obtained by multiplying the quantity sold by State average prices.

The quantity sold was estimated for all other farm products. The entire quantity produced for wool, mohair, cotton, tobacco, sugar beets for sugar, sugarcane for sugar, broomcorn, hops, and mint for oil was estimated as sold. To obtain the value of each product sold, the quantity sold was multiplied by State average prices.

In making the classification of farms by economic class, farms were grouped into two major groups, namely, commercial farms and other farms. In general, all farms with a value of sales of farm products amounting to \$1,200 or more were classified as commercial. Farms with a value of sales of \$250 to \$1,199 were classified as commercial only if the farm operator worked off the farm less than 100 days or if the income of the farm operator and members of his family received from nonfarm sources was less than the total value of all farm products sold.

**Land in farms according to use.**—Land in farms was classified according to the use made of it in 1954. The classes of land are mutually exclusive, i. e., each acre of land was included only once even though it may have had more than one use during the year.

The classes referred to in this report are as follows:

**Cropland harvested.**—This includes land from which crops were harvested; land from which hay (including wild hay) was cut; and land in small fruits, orchards, vineyards, nurseries, and greenhouses. Land from which two or more crops were reported as harvested was to be counted only once.

**Cropland used only for pasture.**—In the 1954 Census, the enumerator's instructions stated that rotation pasture and all other cropland that was used only for pasture were to be included under this class. No further definition of cropland pastured was given the farm operator or enumerator. Permanent open pasture may, therefore, have been included under this item or under "other pasture," depending on whether the enumerator or farm operator considered it as cropland.

**Cropland not harvested and not pastured.**—This item includes idle cropland, land in soil-improvement crops only, land on which all crops failed, land seeded to crops for harvest after 1954, and cultivated summer fallow.

In the Western States, this class was subdivided to show separately the acres of cultivated summer fallow. In these States, the acreage not in cultivated summer fallow represents largely crop failure. There are very few counties in the Western States in which there is a large acreage of idle cropland or in which the growing of soil-improvement crops is an important use of the land.

In the States other than the Western States, this general class was subdivided to show separately the acres of idle cropland (not used for crops or for pasture in 1954). In these States, the incidence of crop failure is usually low. It was expected that the acreage figure that excluded idle land would reflect the acreage in soil-improvement crops. However, the 1954 crop year was one of low rainfall in many Eastern and Southern States and, therefore, in these areas the acreage of cropland not harvested and not pastured includes more land on which all crops failed than would usually be the case.

**Cultivated summer fallow.**—This item includes cropland that was plowed and cultivated but left unseeded for several months to control weeds and conserve moisture. No land from which crops were harvested in 1954 was to be included under this item.

**Cropland, total.**—This includes cropland harvested, cropland used only for pasture, and cropland not harvested and not pastured.

**Land pastured, total.**—This includes cropland used only for pasture, woodland pastured, and other pasture (not cropland and not woodland).

**Woodland, total.**—This includes woodland pastured and woodland not pastured.

**Value of land and buildings.**—The value to be reported was the approximate amount for which the land and the buildings on it would sell.

**Off-farm work and other income.**—Many farm operators receive a part of their income from sources other than the sale of farm products from their farms. The 1954 Agriculture Questionnaire included several inquiries relating to work off the farm and non-farm income. These inquiries called for the number of days worked off the farm by the farm operator; whether other members of the operator's family worked off the farm; and whether the farm operator received income from other sources, such as sale of products from land rented out, cash rent, boarders, old age assistance, pensions, veterans' allowances, unemployment compensation, interest, dividends, profits from nonfarm business, and help from other members of the operator's family. Another inquiry asked whether the income of the operator and his family from off-farm work and other sources was greater than the total value of all agricultural products sold from the farm in 1954. Off-farm work was to include work at nonfarm jobs, businesses, or professions, whether performed on the farm premises or elsewhere; also, work on someone else's farm for pay or wages. Exchange work was not to be included.

**Specified facilities and equipment.**—Inquiries were made in 1954 to determine the presence or absence of selected items on each place such as (1) telephone, (2) piped running water, (3) electricity, (4) television set, (5) home freezer, (6) electric pig brooder, (7) milking machine, and (8) power feed grinder. Such facilities or equipment were to be counted even though temporarily out of order. Piped running water was defined as water piped from a pressure system or by gravity flow from a natural or artificial source. The enumerator's instructions stated that pig brooders were to include those heated by an electric heating element, by an infrared or heat bulb, or by ordinary electric bulbs. They could be homemade.

The number of selected types of other farm equipment was also obtained for a sample of farms. The selected kinds of farm equipment to be reported were (1) grain combines (for harvesting and threshing grains or seeds in one operation); (2) cornpickers; (3) pickup balers (stationary ones not to be reported); (4) field forage harvesters (for field chopping of silage and forage crops); (5) motortrucks; (6) wheel tractors (other than garden); (7) garden tractors; (8) crawler tractors (tracklaying, caterpillar); (9) automobiles; and (10) artificial ponds, reservoirs, and earth tanks.

Wheel tractors were to include homemade tractors but were not to include implements having built-in power units such as self-propelled combines, powered buck rakes, etc. Pickup and truck-trailer combinations were to be reported as motortrucks. School buses were not to be reported, and jeeps and station wagons were to be included as motortrucks or automobiles, depending on whether used for hauling farm products or supplies, or as passenger vehicles.

**Farm labor.**—The farm-labor inquiries for 1954, called for the number of persons doing farmwork or chores on the place during a specified calendar week. Since starting dates of the 1954 enumeration varied by areas or States, the calendar week to which the farm-labor inquiries related varied also. The calendar week was September 26–October 2 or October 24–30. States with the September 26–October 2 calendar week were: Arizona, California, Colorado, Connecticut, Florida, Idaho, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico,

New York, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, Wisconsin, and Wyoming. States with the October 24-30 calendar week were: Alabama, Arkansas, Delaware, Georgia, Illinois, Indiana, Iowa, Maryland, Mississippi, Missouri, North Carolina, Ohio, South Carolina, Virginia, and West Virginia. Farmwork was to include any work, chores, or planning necessary to the operation of the farm or ranch business. Housework, contract construction work, and labor involved when equipment was hired (custom work) were not to be included.

The farm-labor information was obtained in three parts: (1) Operators working, (2) unpaid members of the operator's family working, and (3) hired persons working. Operators were considered as working if they worked 1 or more hours; unpaid members of the operator's family, if they worked 15 or more hours; and hired persons, if they worked any time during the calendar week specified. Instructions contained no specifications regarding age of the persons working.

**Regular and seasonal workers.**—Hired persons working on the farm during the specified week were classed as "regular" workers if the period of actual or expected employment was 150 days or more during the year, and as "seasonal" workers if the period of actual or expected employment was less than 150 days. If the period of expected employment was not reported, the period of employment was estimated for the individual farm after taking into account such items as the basis of payment, wage rate, expenditures for labor in 1954, and the type and other characteristics of the farm.

**Specified farm expenditures.**—The 1954 Census obtained data for selected farm expense items in addition to those for fertilizer and lime. The expenditures were to include the total specified expenditures for the place whether made by landlord, tenant, or both.

Expenditures for machine hire were to include any labor included in the cost of such machine hire. Machine hire refers to custom machine work such as tractor hire, threshing, combining, silo filling, baling, ginning, plowing, and spraying. If part of the farm products was given as pay for machine hire, the value of the products traded for this service was to be included in the amount of expenditures reported. The cost of trucking, freight, and express was not to be included.

Expenditures for hired labor were to include only cash payments. Expenditures for housework, custom work, and contract construction work were not to be included.

Expenditures for feed were to include the expenditures for pasture, salt, condiments, concentrates, and mineral supplements, as well as those for grain, hay, and mill feeds. Expenditures for grinding and mixing feeds were also to be included. Payments made by a tenant to his landlord for feed grown on the land rented by the tenant were not to be included.

Expenditures for gasoline and other petroleum fuel and oil were to include only those used for the farm business. Petroleum products used for the farmer's automobile for pleasure or used exclusively in the farm home for heating, cooking, and lighting were not to be included.

**Crops harvested.**—The information on crops harvested refers to the acreage and quantity harvested for the 1954 crop year. An exception was made for land in fruit orchards and planted nut trees. In this case, the acreage represents that in both bearing and nonbearing trees and vines as of October and November 1954.

**Hay.**—The data for hay includes all kinds of hay except soybean, cowpea, sorghum, and peanut hay.

**Livestock and poultry.**—The data on the number of livestock and poultry represent the number on hand on the day of enumera-

tion (October-November 1954). The data relating to livestock products and the number of livestock sold relate to the sales made during the calendar year 1954.

## LABOR RESOURCES

The data for labor resources available represent estimates based largely on Census data and developed for the purpose of making comparisons among farms of various size of operations. The labor resources available are stated in terms of man-equivalents.

To obtain the man-equivalents the total number of farm operators as reported by the 1954 Census were adjusted for estimated man-years of work off the farm and for the number of farm operators 65 years old and over. The farm operator was taken to represent a full man-equivalent of labor unless he was 65 years or older or unless he worked at an off-farm job in 1954.

The man-equivalent estimated for farm operators reporting specified amounts of off-farm work were as follows:

<i>Days worked off the farm in 1954</i>	<i>Estimated man-equivalent</i>
1-99 days.....	0.85
100-199 days.....	.50
200 days and over.....	.15

The man-equivalent for farm operators 65 years of age and older was estimated at 0.5.

Man-equivalents of members of the farm operator's family were based upon Census data obtained in response to the question "How many members of your family did 15 or more hours of farm work on this place the week of September 26-October 2 (or, in some areas, the week of October 24-30) without receiving cash wages?" Each family worker was considered as 0.5 man-equivalent. This estimate provides allowance for the somewhat higher incidence of women, children, and elderly persons in the unpaid family labor force.

In addition, the number of unpaid family workers who were reported as working 15 or more hours in the week of September 26-October 2 was adjusted to take account of seasonal changes in farm employment. Using published and unpublished findings of the U. S. Department of Agriculture and State Agricultural Colleges, and depending largely upon knowledge and experience with the geographic areas and type of farming, each author determined the adjustment factor needed to correct the number of family workers reported for the week of September 26-October 2 to an annual average basis.

Man-equivalents of hired workers are based entirely upon the expenditure for cash wages and the average wage of permanent hired laborers as reported in the 1954 Census of Agriculture.

**Value of or investment in livestock.**—Numbers of specified livestock and poultry in each subregion were multiplied by a weighted average value per head. The average values were computed from data compiled for each kind of livestock for the 1954 Census of Agriculture. The total value does not include the value of goats. (For a description of the method of obtaining the value of livestock, see Chapter VI of Volume II of the reports for the 1954 Census of Agriculture.)

**Value of investment in machinery and equipment.**—The data on value of investment in machinery and equipment were developed for the purpose of making broad comparisons among types and economic classes of farms and by subregions. Numbers of specified machines on farms, as reported by the Census, were multiplied by estimated average value per machine. Then the total values obtained were adjusted upward to provide for the inclusion of items of equipment not included in the Census inventory of farm machinery.



The estimates for average value of specified machines and the proportion of total value of all machinery represented by the value of these machines were based largely on published and unpublished data from the "Farm Costs and Returns" surveys conducted currently by the Agricultural Research Service, U. S. Department of Agriculture.<sup>1</sup> Modifications were made as needed in the individual chapters on the basis of State and local studies. The total estimated value of all machinery for all types and economic classes of farms is approximately equal to the value of all machinery as estimated by the U. S. Department of Agriculture.

**Value of farm products sold, or gross sales.**—Data on the value of the various farm products sold were obtained for 1954 by two methods. First, the values of livestock and livestock products sold, except wool and mohair; vegetables harvested for sale; nursery and greenhouse products; and forest products were obtained by asking each farm operator the value of sales. Second, the values of all other farm products sold were computed. For the most important crops, the quantity sold or to be sold was obtained for each farm. The entire quantity harvested for cotton and cottonseed, tobacco, sugar beets for sugar, hops, mint for oil, and sugarcane for sugar was considered sold. The quantity of minor crops sold was estimated. The value of sales for each crop was computed by multiplying the quantity sold by State average prices. In the case of wool and mohair, the value of sales was computed by multiplying the quantity shorn or clipped by the State average prices.

Gross sales include the value of all kinds of farm products sold. The total does not include rental and benefit, soil conservation, price adjustment, Sugar Act, and similar payments. The total

does include the value of the landlord's share of a crop removed from a farm operated by a share tenant. In most of the tables, detailed data are presented for only the more important sources of gross sales and the total for the individual farm products or sources will not equal the total as the values for the less important sources or farm products have been omitted. (For a detailed statement regarding the reliability and method of obtaining the value of farm products sold, reference should be made to Chapter IX of Volume II of the reports for the 1954 Census of Agriculture.)

**Livestock and livestock products sold.**—The value of sales for livestock and livestock products includes the value of live animals sold, dairy products sold, poultry and poultry products sold, and the calculated value of wool and mohair. The value of bees, honey, fur animals, goats, and goat milk is not included.

The value of dairy products includes the value of whole milk and cream sold, but does not include the value of butter and cheese, made on the farm, and sold. The value of poultry and products includes the value of chickens, broilers, chicken eggs, turkeys, turkey eggs, ducks, geese, and other miscellaneous poultry and poultry products sold. The value does not include the value of baby chicks sold.

**Crops sold.**—Vegetables sold includes the value of all vegetables harvested for sale, but does not include the value of Irish potatoes and sweetpotatoes.

The value of all crops sold includes the value of all crops sold except forest products. The value of field crops sold includes the value of sales of all crops sold except vegetables, small fruits and berries, fruits, and nuts.

<sup>1</sup> Farm Costs and Returns, 1955 (with comparisons), Agriculture Information Bulletin No. 158, Agricultural Research Service, U. S. Department of Agriculture, June 1956.



# CHAPTER III

TOBACCO AND PEANUT PRODUCERS AND PRODUCTION

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# TOBACCO AND PEANUT PRODUCERS AND PRODUCTION

R. E. L. GREENE

## INTRODUCTION

Tobacco and peanut farms are highly important in several southern and eastern areas of the United States. Current interest in these types of farming is increased because of their prominence in farm policy discussions. Tabulations available from the 1954 Census of Agriculture now permit the analysis of production conditions prevalent on these farms in the major production areas.

While major attention is given to tobacco and peanut farms some information is given on the location of other types of field-crop farms such as Irish potatoes, sugarcane for sugar, and sugar beets. In general these crops are grown in rather distinct and restricted areas in the United States.

The classification of farms by type was made on the basis of the relation of the value of sales from a particular source or sources to the total value of all farm products sold from the farm. A farm was classified as of a particular type if sales or anticipated sales of a product or a group of products represented 50 percent or more of the total value of products sold. Other field-crop farms included the farms on which 50 percent or more of the total value of products sold was from tobacco, peanuts, Irish potatoes, sweetpotatoes, sugarcane, sugar beets for sugar, and other miscellaneous crops. In terms of the total number of commercial farms in the United States in 1955, these other field-crop farms comprised 7.7 percent of all farms and contained 2.9 percent of all land in farms, and 3.7 percent of all cropland harvested in 1954.

## THE OTHER FIELD-CROP FARMS

**Distribution.**—Other field-crop farms included a number of minor field crops other than tobacco and peanuts. Many of these were grown in fairly restricted localities. (See Figure 1.) If thought of by areas, however, there is, necessarily, some overlapping in areas where two or more of these crops were grown.

Tobacco was the important cash crop on other field-crop farms in North Carolina, South Carolina, Kentucky, Tennessee, Virginia, Maryland, New York, Pennsylvania, Wisconsin, and Connecticut (see Figure 2). Tobacco was the important cash crop on many of the farms in southeastern Georgia, but there were also a number of specialized peanut farms in parts of this section.

Peanuts constituted the important cash crop on other field-crop farms in the northeastern corner of North Carolina, the southeastern corner of Virginia, and the southern parts of Alabama and Georgia (see Figure 3). They were also important on some farms in Oklahoma and Texas but broomcorn and sweetpotatoes were also main crops on some of the farms in about the same locations (see Figure 4). Sweetpotatoes formed the chief cash crop on some of the farms in Louisiana, but sugarcane for sugar was the prevailing cash crop on other crop farms in this State (see Figure 5).

The important cash crop on so-called other-crop farms in Maine, Minnesota, North Dakota, Colorado, and eastern Idaho, was Irish potatoes (see Figure 6). In most of the Western States sugar beets for sugar was the dominant crop (see Figure 7). More than 90 percent of all other field-crop farms were located in the South; on the majority of these farms tobacco was the largest source of income.

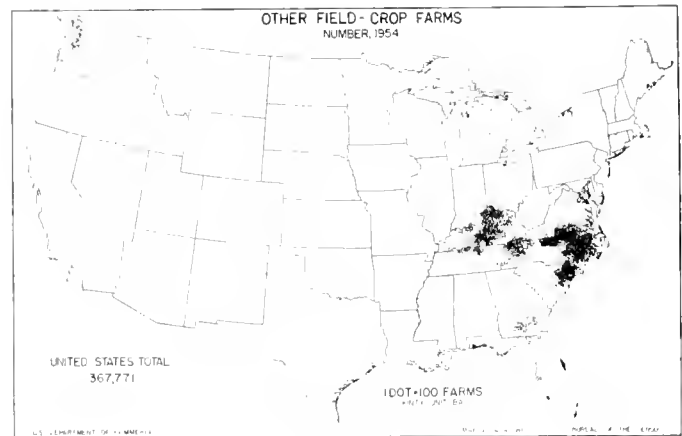


FIGURE 1

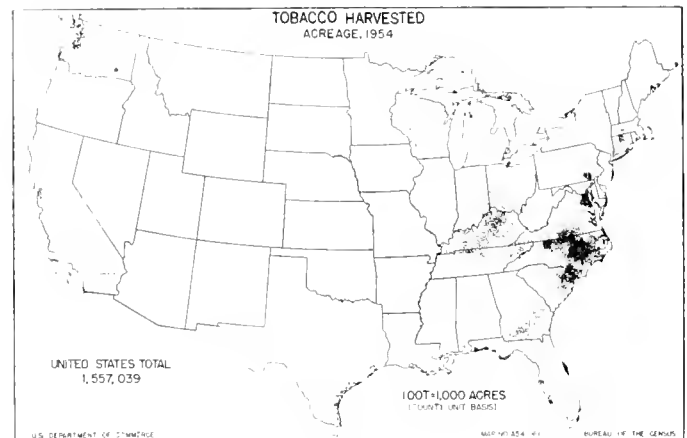


FIGURE 2

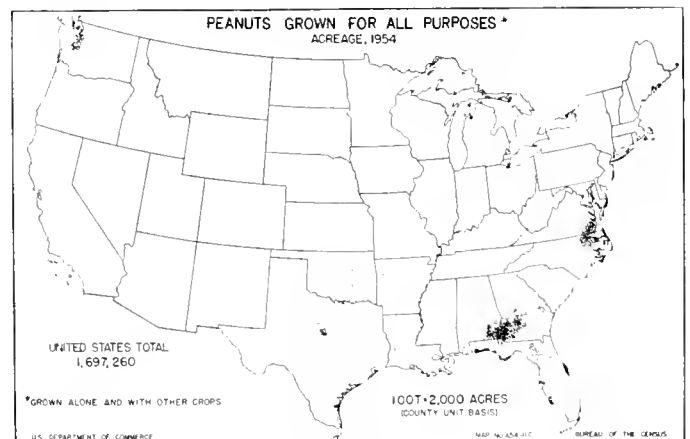


FIGURE 3

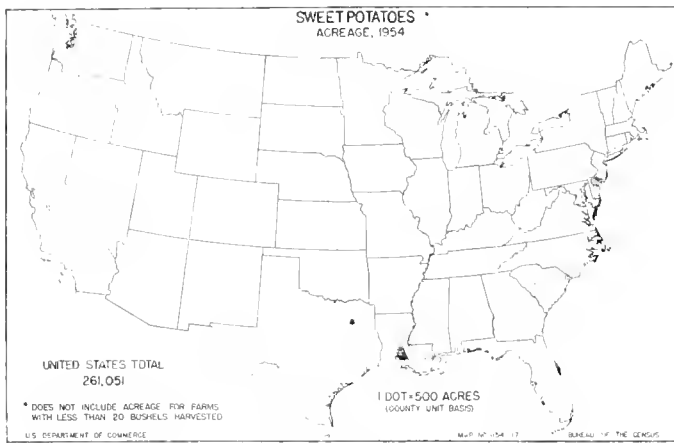


FIGURE 4

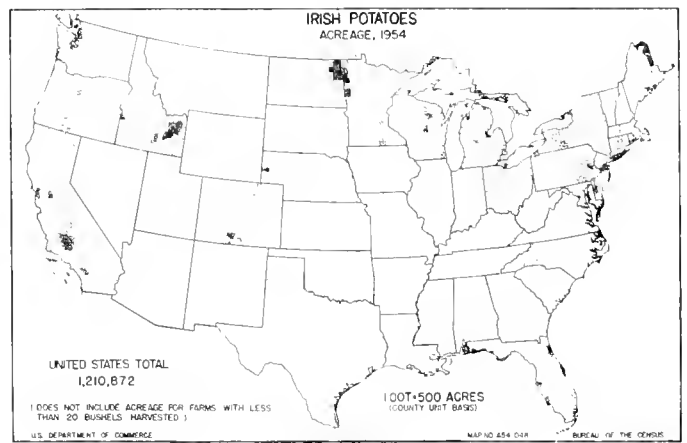


FIGURE 6



FIGURE 5

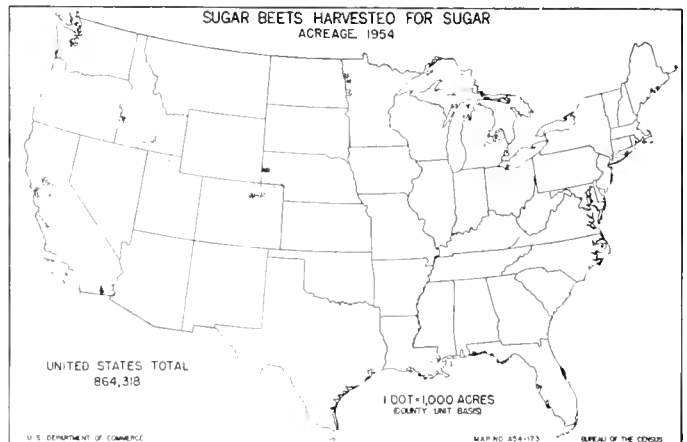


FIGURE 7

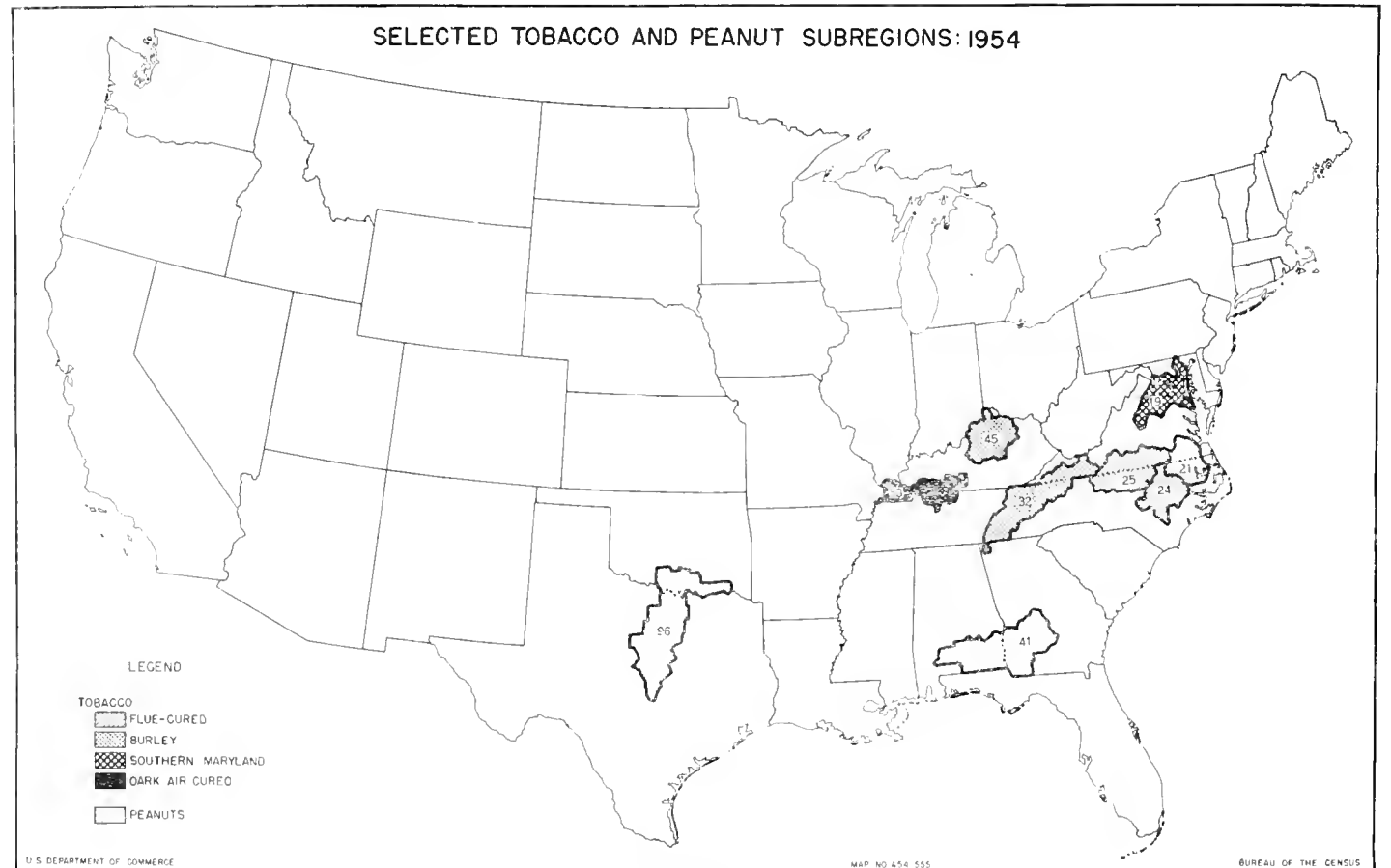


FIGURE 8



## ESTIMATING NUMBER OF TOBACCO AND PEANUT FARMS

Data for other field-crop farms do not show the number of farms of each of the specialty type included in the total for the group. One way to obtain data for farms of a given type is to select subregions in which the crop is of major importance. This procedure was followed in this report. Figure 8 shows the subregions selected for studying tobacco and peanut farms. Subregions for tobacco were subgrouped in order to compare tobacco farms by types of tobacco.

The grouping of subregions according to areas where tobacco or peanuts are of major importance makes it possible only to approximate the number of farms in each group. This is true because of the overlapping of production areas. For example, subregion 21 was designated as a peanut area, but tobacco is important in counties in North Carolina that are a part of the North Carolina tobacco area. Subregion 38 was summarized with the flue-cured tobacco subregions but peanuts are a main crop on a number of farms in parts of this area. In many cases the farms will produce both tobacco and peanuts. Some subregions were not included because several crops included in the other field-crop group were grown there. Some tobacco or peanut farms were not included because data for the subregions where there were comparatively few of these farms were not summarized.

In presenting data in this report, the number of farms in the subregions included were assumed to be a rough approximation of the number of specialized tobacco or peanut farms in the United States in 1954. In each case, the number of farms growing tobacco or peanuts is less than the total number of other field-crop farms because of the overlapping of crops included in the other field-crop classification.

When considering the data in this report, it is necessary to keep in mind the Census definition of a farm. If a landlord has croppers or other tenants, the land assigned each cropper or tenant is enumerated as a separate farm even though the landlord may operate the entire holding essentially as one farm with respect to supervision, equipment, rotation practices, purchase of supplies, or sale of products. Croppers are very numerous in both tobacco and peanut areas (see Figure 9). For some items the amount reported for the landlord's part of the farm may have applied to cropper and tenant farms comprising part of the landholding.

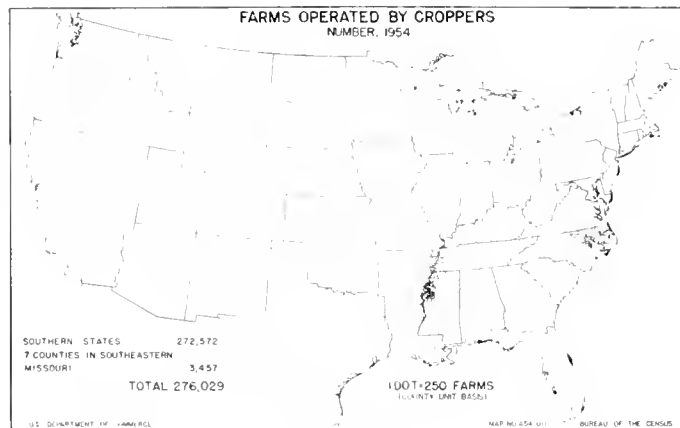


FIGURE 9

## TOBACCO FARMS

Tobacco is a native American crop. It was being grown in this country by the Indians when Columbus discovered America. It was introduced to the white race who rapidly spread its growth to many distant lands. Tobacco was a prized export crop between the Colonies and the mother country and became a valuable article of trade between the Colonies and the Indians.

The history of the early struggles in the production of tobacco in this country with recurring periods of surpluses, low prices, and attempted restrictions on production, and the slow evolution of marketing methods, are among the most interesting chapters of the agricultural history of America.

Contrary to popular opinion, the tobacco in common use today is not that which the settlers found growing in the Indian villages in the Tidewater part of Virginia. The tobacco grown by the Indians was coarse and strong; it belonged to the species *Nicotiana rustica* L. believed to have originated in Mexico. The English colonists brought in and adopted the milder more aromatic varieties of *N. tabacum* then grown in tropical countries, which is believed to have originated in Brazil. Seed of both species seems to have been introduced into Europe by early Spanish explorers.<sup>1</sup>

The production of tobacco is highly localized, primarily because of the influence of climate and soil on the properties of the leaf. States with the largest acreage are North Carolina, Kentucky, Tennessee, Virginia, South Carolina, and Georgia (see Figure 2). Other States with important sections in tobacco are Maryland, Pennsylvania, Ohio, Connecticut, Wisconsin, and Florida. The percentage of cropland in tobacco, harvested in 1954, is shown in Figure 10.

## CLASSES AND TYPES OF AMERICAN-GROWN TOBACCO

Tobacco grown in one area possesses characteristics that distinguishes it from tobacco grown in another area. These characteristics result from the combination of soil and climatic conditions, variety of seed, methods of cultivation and fertilization, and methods of harvesting and curing. In recognition of distinct differences in tobacco which affect demand and uses, tobacco in the several producing areas has been grouped into classes and types as follows:

- I. Cigarette, smoking, and chewing types.
  - A. Class 1, Flue-cured types.
    1. Type 11-a, Old Belt flue-cured.
    2. Type 11-b, Middle Belt flue-cured.
    3. Type 12, Eastern North Carolina flue-cured.
    4. Type 13, South Carolina flue-cured.
    5. Type 14, Georgia flue-cured.
  - B. Class 2, Fire-cured types.
    1. Type 21, Virginia fire-cured.
    2. Type 22, Eastern fire-cured. (Clarksville and Hopkinsville).
    3. Type 23, Western fire-cured. (Paducah and Mayfield).
  - C. Class 3-A, Light air-cured types.
    1. Type 31, Burley.
    2. Type 32, Southern Maryland.
  - D. Class 3-B, Dark air-cured types.
    1. Type 35, One-Sucker.
    2. Type 36, Green River.
    3. Type 37, Virginia sun-cured.

<sup>1</sup> For a more detailed description of classes and types of tobacco and production areas, see United States Department of Agriculture Circular 249, American Tobacco Types, Uses and Markets, by Charles E. Gage, June 1942.

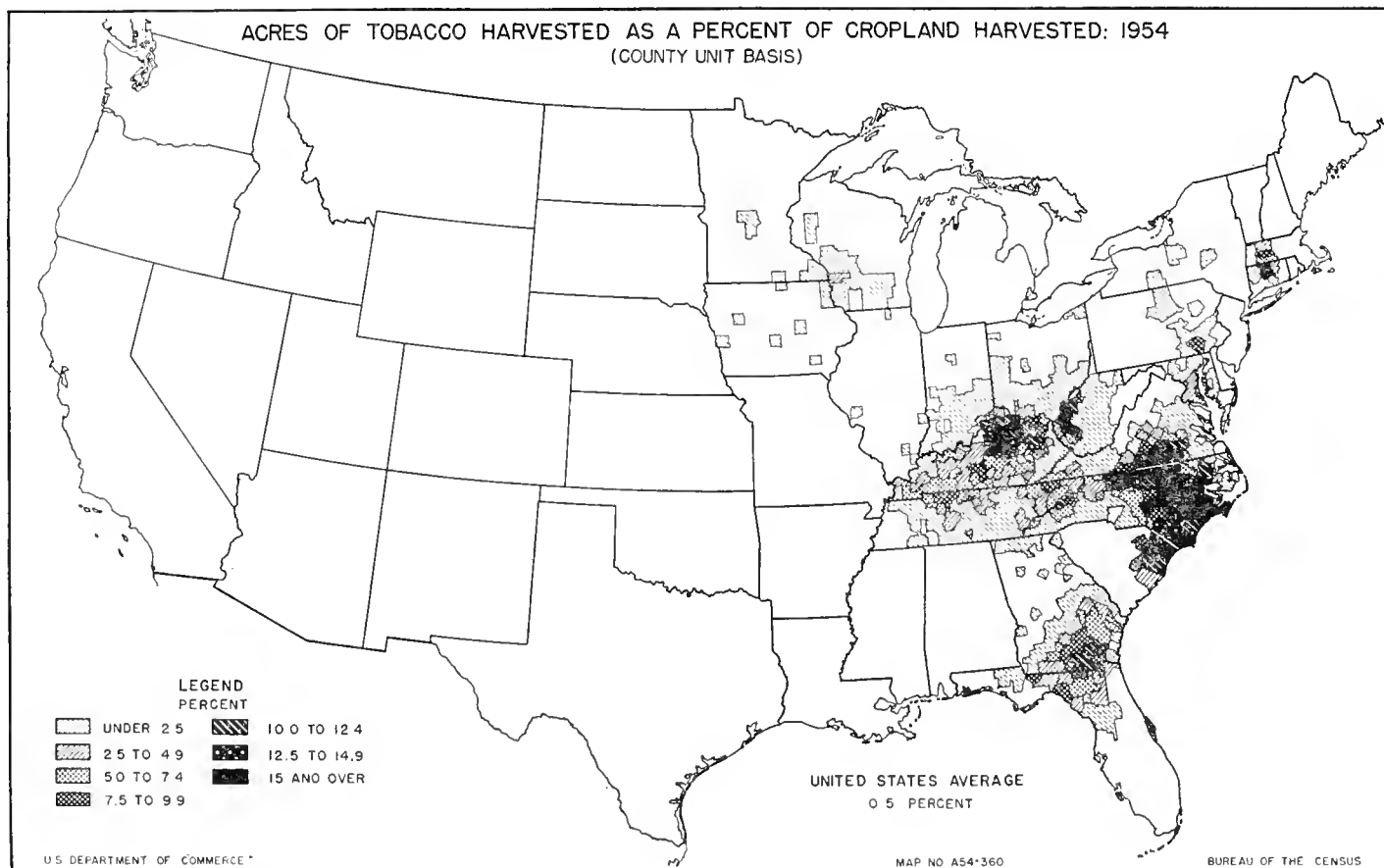


FIGURE 10

## II. Cigar types.

### A. Class 4, Cigar-filler types.

1. Type 41, Pennsylvania seedleaf.
2. Type 42, Gebhardt.
3. Type 43, Zimmer or Spanish.
4. Type 44, Dutch.

### B. Class 5, Cigar-binder types.

1. Type 51, Connecticut Broadleaf.
2. Type 52, Connecticut Havana seed.
3. Type 53, New York and Pennsylvania Havana seed.
4. Type 54, Southern Wisconsin.
5. Type 55, Northern Wisconsin.

### C. Class 6, Cigar-wrapper types.

1. Type 61, Connecticut Valley shade grown.
2. Type 62, Georgia and Florida shade grown.

## III. Miscellaneous.

### A. Class 7, Type 72, Louisiana Perique.

Classes of tobacco differ from each other in notable respects. Types within a class differ in minor respects. For example, the contrast between the large, heavy, gummy, dark-brown leaves of fire-cured tobacco and the thinner brighter colored leaves of flue-cured tobacco are very marked. The flue-cured tobacco, instead of being heavy and gummy, is of light body, is fine textured and oily, but is relatively free from gum—to achieve these characteristics this tobacco is raised on the light, sandy soils of the southeastern seaboard. The same varieties, if raised on heavier soils, such as those of limestone origin, would yield heavier-bodied tobacco that would not make the same response to flue-curing techniques and would not be suited to the uses for which flue-cured tobacco is demanded.

Tobacco grown in certain areas has been selected and handled to produce the qualities of leaf that best meet the requirements of manufacturers. Variations between types, comparing any

given class of tobacco, may consist of differences in color, body, quality in a general sense, or in the response to fermentation and aging, during the storage period. These differences, which are important from a manufacturer's standpoint, come mainly from differences in soil and climate, since within a class the varieties of seed, and cultural and curing methods are, in general, the same.

## RELATIVE IMPORTANCE OF TOBACCO IN THE UNITED STATES

Tobacco is an important crop in the agricultural economy of this country. According to estimates of the U. S. Department of Agriculture in 1954, the proportion of the total cropland harvested in tobacco in the United States was small, only 0.5 percent. (See Table 1.) As it is a crop with a high value per acre it accounted for a larger proportion of the total cash income than the acreage would indicate. In 1954, cash income from tobacco was 8.6 percent of the total cash income from all crops and 3.8 percent of the total cash farm income. Significantly, in 6 States tobacco contributed 15 percent or more of the cash farm income. They were Connecticut, 15 percent; Tennessee, 17 percent; Virginia, 18 percent; South Carolina, 23 percent; Kentucky, 45 percent; and North Carolina, 54 percent.

The proportion that acres in tobacco is of cropland harvested in the United States has been about the same each Census period since 1919 (see Table 1). The number of farmers growing tobacco in 1954 was a fifth more than the number in 1934. The proportion that tobacco makes up of total cash income from crops or total cash farm income in the United States has been fairly constant in each of the Census years since 1934.

## VARIATION IN ACRES AND PRODUCTION OF TOBACCO PER FARM

Production of tobacco requires a large amount of labor, most of which is hand labor. The quantity of tobacco grown depends partly on the acres a family can harvest. This, together with the

TABLE 1.—NUMBER AND PERCENTAGE OF FARMS REPORTING TOBACCO, PERCENTAGE OF CROPLAND HARVESTED IN TOBACCO, AND PERCENTAGE CASH INCOME FROM TOBACCO IS OF TOTAL CASH INCOME FROM CROPS AND TOTAL CASH FARM INCOME, BY CENSUS PERIODS, UNITED STATES: 1919 TO 1954

Year	Farms reporting tobacco		Percent of cropland harvested in tobacco	Percent cash income from tobacco is of—	
	Number	Percent of all farms		Cash income from crops <sup>1</sup>	Total cash farm income <sup>1</sup>
1954.....	513,346	10.7	0.5	8.6	3.8
1949.....	531,922	9.9	.4	7.2	3.2
1944.....	490,585	8.4	.5	7.6	3.4
1939.....	498,348	8.2	.6	8.2	3.5
1934.....	422,106	6.2	.1	7.9	3.7
1929.....	432,975	6.9	.5	5.4	2.5
1924.....	396,352	6.2	.4	4.8	2.5
1919.....	418,572	7.0	.5	6.5	3.4

NA Not available.  
<sup>1</sup> Does not include governmental payments. Estimates of the U. S. Department of Agriculture.

allotment program, results in a small acreage and production per farm. In 1954, the majority of farmers who grew flue-cured tobacco reported from 2.5 to 4.9 acres and only 34 percent grew more than 5 acres (see Table 2). Of the farmers growing Burley tobacco, 47 percent reported less than 1 acre and only 17 percent reported more than 2.5 acres. Growers of dark fire-cured tobacco had larger acreages than growers of dark air-cured tobacco. Growers of Southern Maryland tobacco and growers of cigar types tended to have slightly larger acreages than growers of flue-cured tobacco. Pounds of tobacco produced per farm varied about the same way that acreage was distributed (see Table 3). But with the exception of Southern Maryland and cigar types of tobacco, less than 10 percent of the growers in each type produced as much as 10,000 pounds of tobacco per farm.

PRODUCING AREAS \*

Production of various types of tobacco is highly localized, for no crop is more susceptible to slight changes in soils and subsoils. The chief determining and limiting factor is soil. There are only a few places where two or more types can be grown interchangeably. There are even very limited transition zones wherein types can be alternated or shifted. The major classes and types of tobacco grown in this country are given on pages 7 and 8. Figure 11 shows the location of tobacco-growing districts in the United States, which are found mainly in the States on the Atlantic seaboard and in Kentucky and Tennessee.

**Flue-cured tobacco.**—About three-fifths of the production of tobacco in this country is flue-cured. The demand for it both domestic and foreign, arises primarily from the use in cigarette manufacture. The production of flue-cured tobacco has been under some kind of control program since 1933. However, with a guaranteed market and support price, it is probable that more farmers grow the crop than would do so under free production and market conditions. Acreage controls extending over many years have fostered an intensive type of cultivation which has considerably increased the yields per acre. More intensive practices and higher yields have raised the labor inputs per acre.

Flue-cured tobacco is produced in Virginia, North Carolina, South Carolina, Georgia, Florida, and to a small extent in Alabama. The territory is divided into two general districts commonly referred to as Old Belt and New Belt. They correspond roughly to the physiographic provinces known as the Piedmont and the Atlantic Coastal Plain. The New Belt group, types 12 to 14, differs markedly from the Old Belt tobacco, type 11, the latter being generally heavier in body and darker in color. Differences between types within the New Belt group may be traced primarily to variations in soil.

TABLE 2.—NUMBER OF FARMS REPORTING TOBACCO HARVESTED AND PROPORTION OF FARMS HARVESTING VARIOUS ACREAGES, BY TYPES OF TOBACCO AND STATES, UNITED STATES: 1954

State	Number of farms reporting tobacco harvested	Percent of farms harvesting—						
		Under 0.5 acres	0.5 to 0.9 acres	1.0 to 2.4 acres	2.5 to 4.9 acres	5.0 to 9.9 acres	10.0 to 19.9 acres	20.0 acres and over
<b>Flue-cured tobacco</b>								
All farms.....	226,020	0.9	2.1	20.6	42.0	30.0	4.1	0.3
North Carolina.....	134,695	.5	1.3	15.4	40.9	36.2	5.4	.3
South Carolina.....	34,372	2.1	4.8	28.2	14.3	19.1	1.4	.1
Georgia.....	27,972	.7	2.0	31.7	45.7	18.0	1.7	.2
Virginia.....	23,045	.9	2.1	22.4	42.4	28.7	3.3	.2
Florida.....	5,733	.8	3.7	35.6	37.0	16.9	4.4	1.6
Alabama.....	203	80.2	7.4	2.9	.5	.....	.....	.....
<b>Burley tobacco</b>								
All farms.....	238,458	10.9	36.6	34.9	13.1	3.9	0.5	0.1
Kentucky.....	115,620	5.8	27.3	38.9	20.2	6.9	.8	.1
Tennessee.....	70,082	15.0	48.3	30.9	5.1	.6	.1	(Z)
Virginia <sup>1</sup> .....	19,051	12.1	38.9	38.4	9.0	1.5	.1	.....
North Carolina.....	13,913	25.8	44.7	26.6	2.4	.4	.1	(Z)
Ohio <sup>2</sup> .....	8,478	8.3	37.2	31.0	17.1	5.5	.8	.1
Indiana.....	6,902	9.5	45.1	33.3	9.8	2.1	.2	(Z)
West Virginia.....	3,407	23.1	53.9	21.2	1.8	.....	.....	.....
Kansas and Missouri.....	1,005	73.9	21.2	4.8	.1	.....	.....	.....
<b>Southern Maryland tobacco</b>								
Maryland.....	5,601	0.3	1.1	11.8	17.7	33.3	27.8	8.0
<b>Dark fire-cured tobacco</b>								
All farms.....	13,865	3.7	7.1	40.1	35.8	12.3	1.0	(Z)
Kentucky.....	6,682	4.8	7.0	43.5	34.5	9.5	.6	.1
Tennessee.....	7,183	2.6	7.2	37.0	37.0	14.8	1.4	(Z)
<b>Dark air-cured tobacco</b>								
All farms.....	16,717	24.8	30.6	35.6	8.0	1.0	(Z)	.....
Kentucky.....	13,151	21.3	30.7	38.0	9.0	1.0	(Z)	.....
Tennessee.....	3,566	38.0	30.1	26.4	4.6	.9	.....	.....
<b>Cigar-filter tobacco</b>								
Pennsylvania <sup>3</sup> .....	4,886	0.4	0.9	16.3	20.7	40.4	14.6	0.7
<b>Cigar-binder tobacco</b>								
All farms.....	5,029	1.7	4.6	32.1	38.2	16.4	4.7	2.3
Connecticut.....	660	.8	.....	9.1	22.7	23.5	26.5	17.4
Iowa, Minnesota, and Wisconsin.....	4,369	1.8	5.3	35.6	40.5	15.3	1.5	.....
<b>Cigar-wrapper tobacco</b>								
All farms.....	243	0.4	.....	20.6	28.8	21.0	12.3	16.9
Connecticut.....	79	.....	.....	6.3	31.6	19.0	12.7	30.4
Massachusetts and Vermont.....	164	.6	.....	27.4	27.4	22.0	12.2	10.4

Z Less than 0.05 percent.  
<sup>1</sup> Also includes dark air-cured tobacco grown in Virginia.  
<sup>2</sup> Also includes cigar-filter tobacco grown in Ohio.  
<sup>3</sup> Also includes cigar-binder tobacco grown in Pennsylvania.

Old Belt tobacco, type 11, is grown on the loam and sandy loam soils of the Piedmont derived from underlying granite, gneiss, slate, etc., and underlaid usually with heavy clay subsoils. This area embraces the Piedmont country of southern Virginia and northern North Carolina. Its terrain varies from undulating to hilly with mountainous portions on the west. About four-fifths of the land is in farms. The average size of the commercial tobacco farm is about 78 acres, of which 1 to 5 acres will be in tobacco each year. Production of the crop is rather equally divided at present between tenant- and owner-operated farms. Tobacco is the main enterprise on most farms, but livestock, especially dairying, is definitely increasing. This area is also the center of the cigarette manufacturing industry. Winston-Salem is the leading

\*The discussion in this section is based partly on a preliminary manuscript being prepared on the "System of Economic Areas" by Donald J. Bogue and C. L. Beale.

FARMERS AND FARM PRODUCTION

TABLE 3.—NUMBER OF FARMS REPORTING TOBACCO HARVESTED AND PROPORTION OF FARMS HARVESTING VARIOUS NUMBER OF POUNDS, BY TYPES OF TOBACCO AND STATES, UNITED STATES: 1954

State	Number of farms reporting tobacco harvested	Percent of farms harvesting—							
		Under 500 pounds	500 to 999 pounds	1,000 to 1,499 pounds	1,500 to 1,999 pounds	2,000 to 2,999 pounds	3,000 to 4,999 pounds	5,000 to 9,999 pounds	10,000 pounds or more
<b>Flue-cured tobacco</b>									
All farms.....	226,020	1.6	4.1	5.7	6.0	13.4	27.9	32.3	9.0
North Carolina.....	134,695	.7	2.5	4.0	4.5	10.7	27.4	38.3	11.9
South Carolina.....	34,372	4.4	8.4	8.8	8.3	17.0	28.8	20.7	3.6
Georgia.....	27,972	2.5	6.8	9.8	9.3	20.0	27.4	20.3	3.9
Virginia.....	23,045	1.1	3.6	5.5	6.9	14.3	30.5	31.4	6.7
Florida.....	5,733	1.2	5.4	8.5	9.8	18.5	25.5	21.8	9.3
Alabama.....	203	7.4	13.8	12.3	13.8	25.6	18.2	8.4	.5
<b>Burley tobacco</b>									
All farms.....	238,458	8.0	17.2	20.0	14.7	14.5	14.5	8.8	2.3
Kentucky.....	115,620	3.9	11.6	16.7	13.8	15.3	19.7	14.8	4.2
Tennessee.....	70,082	13.5	25.2	23.9	14.8	12.3	8.3	1.8	.2
Virginia <sup>1</sup> .....	19,051	9.3	17.3	20.6	18.9	18.1	12.5	3.0	.3
North Carolina.....	13,913	13.1	21.4	22.7	17.0	14.9	8.8	1.9	.2
Ohio <sup>2</sup> .....	8,478	5.5	14.6	21.1	13.6	14.0	15.8	12.0	3.4
Indiana.....	6,902	7.2	18.9	24.9	15.8	14.7	12.3	5.4	.8
West Virginia.....	3,407	17.0	28.6	27.8	12.2	10.1	3.9	.4	-----
Kansas and Missouri.....	1,005	5.5	11.4	14.6	8.4	10.9	18.8	21.0	9.4
<b>Southern Maryland tobacco</b>									
Maryland.....	5,601	0.9	4.5	3.7	5.3	10.5	18.5	33.6	23.0

State	Number of farms reporting tobacco harvested	Percent of farms harvesting—							
		Under 500 pounds	500 to 999 pounds	1,000 to 1,499 pounds	1,500 to 1,999 pounds	2,000 to 2,999 pounds	3,000 to 4,999 pounds	5,000 to 9,999 pounds	10,000 pounds or more
<b>Dark fire-cured tobacco</b>									
All farms.....	13,865	3.4	7.3	10.4	10.8	19.3	26.6	18.3	3.9
Kentucky.....	6,682	4.6	7.5	11.4	11.8	21.9	26.1	14.3	2.4
Tennessee.....	7,183	2.2	7.1	9.4	9.8	16.9	27.1	22.1	5.4
<b>Dark air-cured tobacco</b>									
All farms.....	16,717	19.3	24.2	20.2	12.3	11.8	8.9	3.0	0.3
Kentucky.....	13,151	17.1	23.3	20.6	13.1	12.5	9.6	3.4	.4
Tennessee.....	3,566	27.3	27.3	18.4	9.3	9.3	6.3	1.8	.3
<b>Cigar-filler tobacco</b>									
Pennsylvania <sup>3</sup> .....	4,886	0.6	1.2	3.0	3.8	6.5	19.4	33.0	32.5
<b>Cigar-binder tobacco</b>									
All farms.....	5,029	1.2	2.6	6.0	8.0	13.2	28.0	26.8	14.2
Iowa, Minnesota, and Wisconsin.....	4,369	1.3	2.9	7.0	8.9	15.1	30.1	27.2	7.6
Connecticut.....	660	.8	-----	-----	2.3	.5	14.4	24.2	57.5
<b>Cigar-wrapper tobacco</b>									
All farms.....	243	0.4	-----	-----	2.0	4.1	26.8	28.8	37.9
Connecticut.....	79	-----	-----	-----	-----	-----	19.0	25.3	55.7
Massachusetts and Vermont.....	164	.6	-----	-----	3.1	6.1	30.5	30.5	29.2

<sup>1</sup> Also includes dark air-cured tobacco grown in Virginia.    <sup>2</sup> Also includes cigar-filler tobacco grown in Ohio.    <sup>3</sup> Also includes cigar-binder tobacco grown in Pennsylvania.

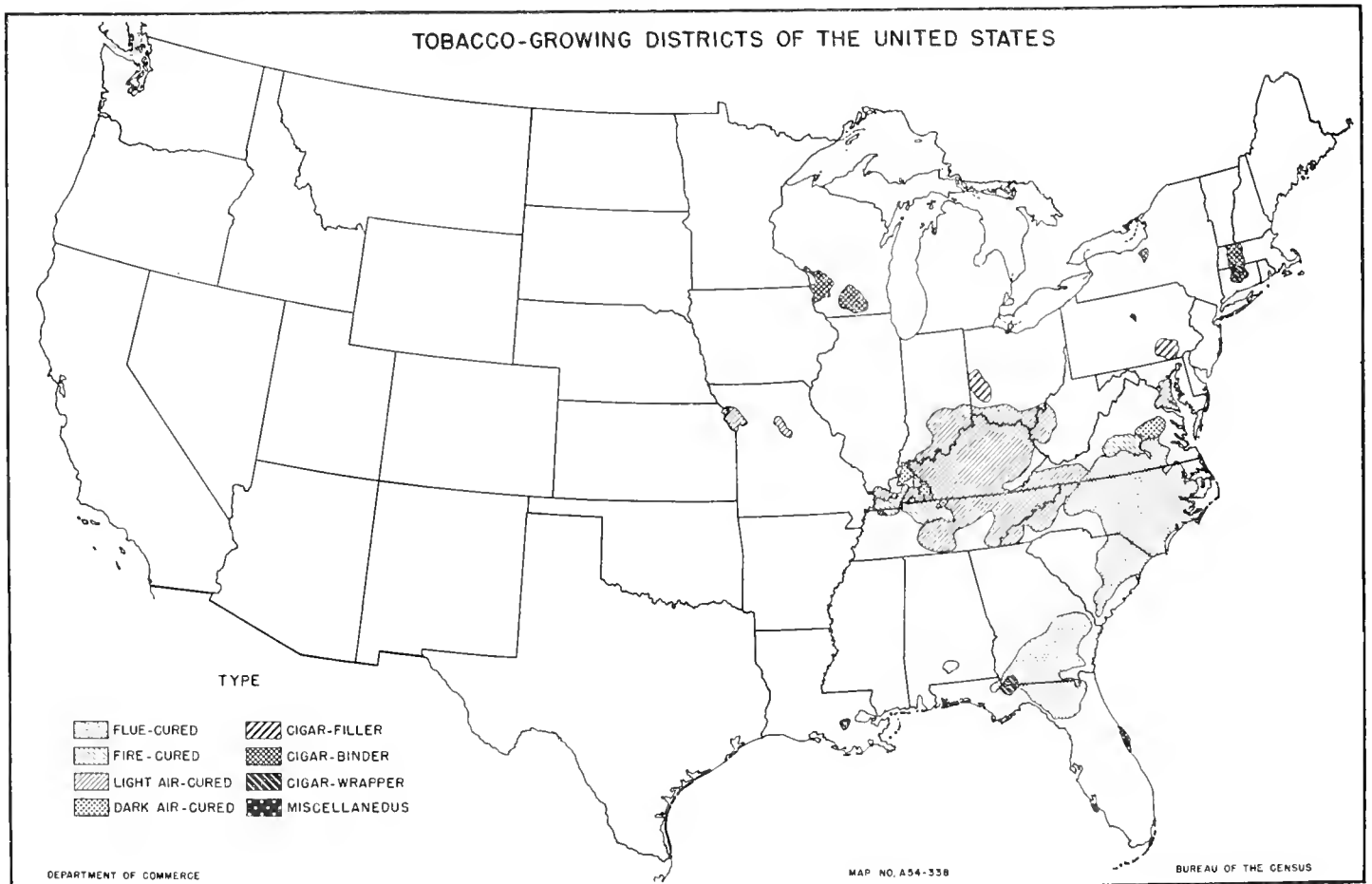


FIGURE 11

industrial city of North Carolina and the largest center for tobacco products in the Nation. The area also has extensive textile and furniture interests. Greensboro has large textile mills and is the principal distribution center in this area. Other major cities are Durham, cigarette manufacture; High Point, furniture and hosiery; and Danville and Burlington, textiles. The Virginia part of the subregion is more rural than the part in North Carolina.

Types 12, 13, and 14, comprising the New Belt group, are grown on the more sandy, gravelly soils of marine origin in the Coastal Plain. Type 12, Eastern Carolina tobacco, is produced in a part of North Carolina lying east of the fall line belonging to the Coastal Plain. The most intensive area of production is in the area that makes up subregion 24. It constitutes an intensive agricultural section and the density of farm population is greater in this subregion than in any other part of the United States of comparable size. This is true, whether considered per square mile of farmland or of total land area. Most of the farms have less than 50 acres of cropland. Tenant farmers outnumber owners. Although most farmers specialize in tobacco, cotton is grown on many of the farms. Corn is the leading crop from the standpoint of acreage but only minor quantities are sold. Livestock products are a relatively small element in the farm cash economy. Most of the farmers do not engage in off-farm work, and those who do, work only for relatively short periods.

Type 12 tobacco is also important in subregion 22, which has a wider variety of soils than subregion 24. Soil types range from white sands to black loams. The well-drained, light sandy loams are best for tobacco, cotton, peanuts, sweetpotatoes, and early truck crops. The dark, heavy, imperfectly drained loams are used more for corn, soybeans, Irish potatoes, and late truck crops. In general, the northern counties derive more income from soybeans and Irish potatoes, while tobacco is much more important in the southern counties. In contrast to subregion 24, the majority of the farmers own their farms and the percentage of Negro farmers is much lower.

Type 13, South Carolina tobacco, is grown in the northern part of South Carolina and a small adjoining district of southern North Carolina. The agriculture here has made a partial transition from cotton to tobacco so that tobacco is now the leading cash crop. The agricultural land is interspersed with large acreages of swamp or other poorly drained land. In the best parts the density of farm population per square mile of farmland reaches a level of from 60 to 70 persons, comparable with that in subregion 24. Tenant farmers outnumber owners among commercial operators by a 3 to 2 margin. Corn is the leading crop from the standpoint only of acreage. The livestock industry is not highly developed and there is a deficit in the production of dairy products. With the large number of work animals, there is also a shortage of feed grains, despite the large acreage of corn.

Type 14 tobacco is produced mostly in the southern part of Georgia, although a few million pounds are produced in northern Florida and a small quantity in Alabama. The local traditional cotton economy of the early part of this century was very hard hit by the boll weevil. The majority of the cotton was of the Sea Island variety, which proved particularly susceptible to the weevil and was wiped out within a few years. Farmers adjusted to the decrease in cotton production by introducing flue-cured tobacco and by expanding the production of peanuts, livestock, and watermelons. Cotton, still grown on some farms, provides less than 10 percent of the total value of farm products sold.

The Georgia-Florida flue-cured tobacco belt is the youngest in the country. It had about 11,000 acres of tobacco in 1919, and more than 125,000 acres in 1954. Tobacco is the chief money crop. Peanuts, depended upon considerably in parts of the belt, are raised both for sale as nuts and for use in feeding livestock, especially hogs. Naval stores, gum, and truck crops, particularly watermelons, are other major sources of farm income. This belt, which corresponds mostly to subregion 38, is one of the most di-

versified agricultural sections in the South, but the average level of farm income cannot be considered high. Many farms in the Georgia part of the belt are small. The farmers are noticeably younger than in most other parts of Georgia and Florida. Much of the agricultural development is of fairly recent origin. In a reasonably typical Georgia county, it has been estimated that one-third of the land well-suited for farming has not yet been cultivated.

**Burley tobacco.**—Burley is classed as a light air-cured type. It is the second most important type of tobacco grown in the United States. Earlier, the great requirement for Burley tobacco was for the manufacture of chewing and smoking tobacco. With the increase in cigarette production, larger and larger quantities have been used for this purpose. At present, more than 85 percent of the domestic use of Burley is in the manufacture of cigarettes.

The outstanding States for the production of Burley are Kentucky, Tennessee, Virginia, and North Carolina. But some is grown in Ohio, Indiana, West Virginia, Kansas, and Missouri. The most intensive districts of Burley tobacco production are subregion 44, the Kentucky Bluegrass subregion; subregion 45, the eastern and western Highland Rim subregion of Kentucky and Tennessee; and subregion 32, the Southern Appalachian Ridge subregion.

The slopes of the Kentucky Bluegrass subregion are less steep than the more hilly areas to the southeast. The subregion contains excellent pastureland, so livestock farming is an important part of the economy. But more than three-fifths of the farms are cash-crop farms. Livestock is also an important enterprise on many of the farms that grow tobacco. The level of living is high in comparison with the other Burley tobacco areas.

The eastern and western Highland Rim subregion borders the Nashville Basin on the east and west. The land is steep and eroded. Many of the farms are self-sufficient. This is the most thoroughly rural subregion in the United States, with more than 90 percent of the people living in the open country or in villages of less than 2,500 inhabitants. However, a little less than half of the working force is engaged primarily in farming. About one-fifth is in manufacturing and construction, the remainder in trades and services. About 92 percent of the population is white. Tobacco is produced mostly in the northern two-thirds of the subregion. The production is from relatively small plots and a minimum of power machinery is used. The mean size of tobacco farms is about 75 acres with an average of about 1.6 acres in tobacco. Most of the tobacco farms sell some livestock. In addition, most of the farmers supplement their income with the sale of milk, eggs, and chickens.

The Southern Appalachian Ridge and Valley subregion consists of the central part of the Appalachian Great Valley and the Ridge and Valley area. The chief cities are Chattanooga and Knoxville. There are several smaller industrial cities. The industrial development of the subregion has been greatly stimulated through the establishment of the Tennessee Valley Authority. The manufacture of textiles, machinery, chemicals, aluminum, and paper are among the important industries.

Despite the prevalence of adverse topography, about two-thirds of the land is in farms. A little more than half the farms are classified as residential or part-time. Farms average about 70 acres. The amount of land in farms has been decreasing because of the abandonment of hilly land and the removal of farmland for use as dams or reservoirs. About 90 percent of the commercial farms are tobacco, dairy, livestock, or general livestock farms. The acreage of tobacco per farm is small so most tobacco farmers supplement their income with the sale of livestock or livestock products.

**Maryland tobacco.**—Maryland tobacco is classed with Burley as light air-cured and some strains resemble the stand-up varieties of that type in appearance and habit of growth. However, much Maryland tobacco is known as broadleaf; the leaves are broad, and

they droop instead of standing erect. Like Burley, Maryland tobacco is almost free of gum. The major use of this type is in cigarette blends to improve burning quality.

Maryland tobacco is produced in five counties in Southern Maryland which lie in a peninsula between the Potomac River and Chesapeake Bay. It is all coastal plain, but of a mature, dissected stage, having many more slopes and low hills than are typical of the Atlantic Coastal Plains as a whole.

For more than 300 years the culture and economy of these counties has been based on tobacco. The crop has been cultivated here longer than in any other part of the United States except the Connecticut River Valley. Leaching and three centuries of row-crop cultivation have made the soils of Southern Maryland acid, eroded, and severely deficient in organic matter. This causes serious problems in the maintenance of crop quality and yields. Cattle and hogs are the only important source of farm income other than tobacco. Although this area is adjacent to Washington, D. C., it is completely rural, the largest settlement has only 1,000 people. It is becoming a rural residential district for people who work in the metropolitan area and a resort district of the summer-cottage type as it has a long frontage of water and is in easy driving distance of both Baltimore and Washington. Some outside work within the counties is being furnished by the Naval Powder Plant at Indian Head and the large Naval Air Base at Patuxent River.

**Dark-fired and air-cured types.**—For the purpose of this report all types of dark tobacco have been grouped together. Tobacco that is cured in heat and smoke of open fires is called fire-cured or dark-fired. Its principal domestic use is in the manufacture of snuff. Some is used in manufacturing tobacco byproducts such as nicotine sulphate and tobacco extracts. Small quantities are used in making Tosconi-type cigars, and chewing and smoking tobacco.

The dark air-cured tobaccos are One-sucker, Green River, and Virginia sun-cured. They contain no cigarette grades, and are used in manufacturing chewing tobacco and to a smaller extent in smoking tobacco and snuff. One-sucker tobacco and some of the dark-fired types 22 and 23 are used by the "rehandling trade" for processing and exporting to the west coast of Africa.

Dark types of tobacco are grown in Virginia along the upper James and lower Appomattox Rivers and in Kentucky and Tennessee. In the latter States production is found east of the Tennessee River around Hopkinsville, Ky., and Clarksville and Springfield, Tenn.; west of the Tennessee River from Paducah, Ky., southward to Henry and Weakley Counties, Tenn.; and in several counties lying near the Ohio River to the south and west of Henderson, Ky.

The dark tobacco district in Virginia is in a zone of transition. The economy is one of important but highly localized manufacturing, lumbering, and small-scale farming. Richmond, the largest city, is a manufacturing center. Other centers of industry are Petersburg and Lynchburg. Settlement outside the areas of these cities is rather sparse. Many of the counties have only 20 to 25 persons per square mile. The agriculture is rather diversified, and is conducted mostly on a small-scale; less than half the farms are considered commercial.

Tobacco has long been the main cash crop but production has declined with the decrease in demand for dark tobacco. The largest crops are corn and hay, and livestock products form the bulk of farm sales. Dairying, poultry, and beef cattle are of almost equal importance. Farms primarily devoted to the sale of livestock products are likely to be more prosperous than those that specialize in tobacco production. The soils are not inherently highly productive, but respond well to good management. Through the years many farms have been abandoned. Nevertheless, this country appears to have considerable in the way of agriculture potentials. Differences in present productivity of farms appear to be due more to proper management and avail-

ability of capital than to natural resources.

That part of Kentucky and Tennessee that produces fire-cured and dark air-cured tobacco is located mainly in the Pennyroyal and Jackson Purchase subregion. It has been known for generations as the Black Patch. It consists of two distinctively different types of land. The Jackson Purchase area, which lies west of the Tennessee River, is below the fall line and consists of fall-line hills and coastal plains. The Pennyroyal area is above the fall line and is a somewhat broken and hilly country. Here, as in the Virginia area, tobacco has lost much ground due to the decrease in demand for dark tobacco, but the crop still dominates the agriculture. Many of the farms that grow tobacco also receive a part of their income from livestock and livestock products.

**Cigar-tobacco types.**—Cigar tobaccos are classified as cigar-filler types, cigar-binder types, and cigar-wrapper types. The most important filler type of American grown tobacco is Pennsylvania broadleaf, type 41, grown in the Pennsylvania counties of Lancaster, York, Chester, Lebanon, Berks, and Dauphin. Other types of cigar-filler tobacco are grown in the Miami Valley in southwestern Ohio, mostly in Darke, Preble, Butler, Miami, Montgomery, and Warren Counties.

The tobacco in Pennsylvania is grown in subregion 16. This county is semimountainous for it lies on the eastern edge of the Appalachian Mountains. Manufacturing is the principal source of livelihood with apparel textile-mill products, food products, primary metals, and machinery, the leading kinds. Agriculture is the second largest source of employment. About two-thirds of the land is in farms and more than half of the farmland is in crops. Tobacco is grown as a special crop in the Lancaster part. For the subregion as a whole, the agriculture is of a general and diversified type. Dairying is the principal type of farming, but it is supplemented with income from poultry, livestock, and cash crops. Fruit is the leading cash crop, with vegetables a minor supplement.

Cigar-binder types are grown in the valley of the Connecticut River from near the Massachusetts State line to Glastonbury, Conn. Scattering acreages are found in northern Pennsylvania and southern and central New York, and in Wisconsin, Georgia, and Florida. Wrapper types of cigar tobacco are grown in the Connecticut Valley and in Georgia and Florida.

The Connecticut Valley is the most important area for both binder and wrapper types. The economy of the area is centered around manufacturing which provided 43 percent of the total State employment in 1950. The industry is diversified with specialties in textiles, machinery, pulp and paper, and rubber products. Tobacco provided about 20 percent of the total farm income in 1951. Dairy and poultry production are the other main types of agriculture.

#### TRENDS IN ACRES, YIELD, AND PRODUCTION

The form in which tobacco is used—smoking, chewing, and snuff—is the same today as it was when the white man discovered this country. Nevertheless, over the years there have been marked shifts as between kinds and forms of use. The general direction has been from "strong" tobacco to "mild," from cigars to cigarettes, from chewing to pipe smoking. Changes in mode of consumption and preference of consumers for the lighter rather than the heavier-bodied tobaccos have had marked effects on trends in production in the various tobacco areas. A knowledge of these trends contributes to an understanding of some of the agricultural problems of the areas and growers.

**Acreage.**—The total acres in tobacco in the United States has not shown much change from the acreage reached during World War I. During the 1915-19 period, the average acreage was 1,639,300 compared with 1,690,140 acres during 1950-54. There have been pronounced shifts in acres in certain types of tobacco.

ACREAGE, YIELD PER ACRE, AND PRODUCTION OF TOBACCO, BY TYPES, UNITED STATES, 1920-1955

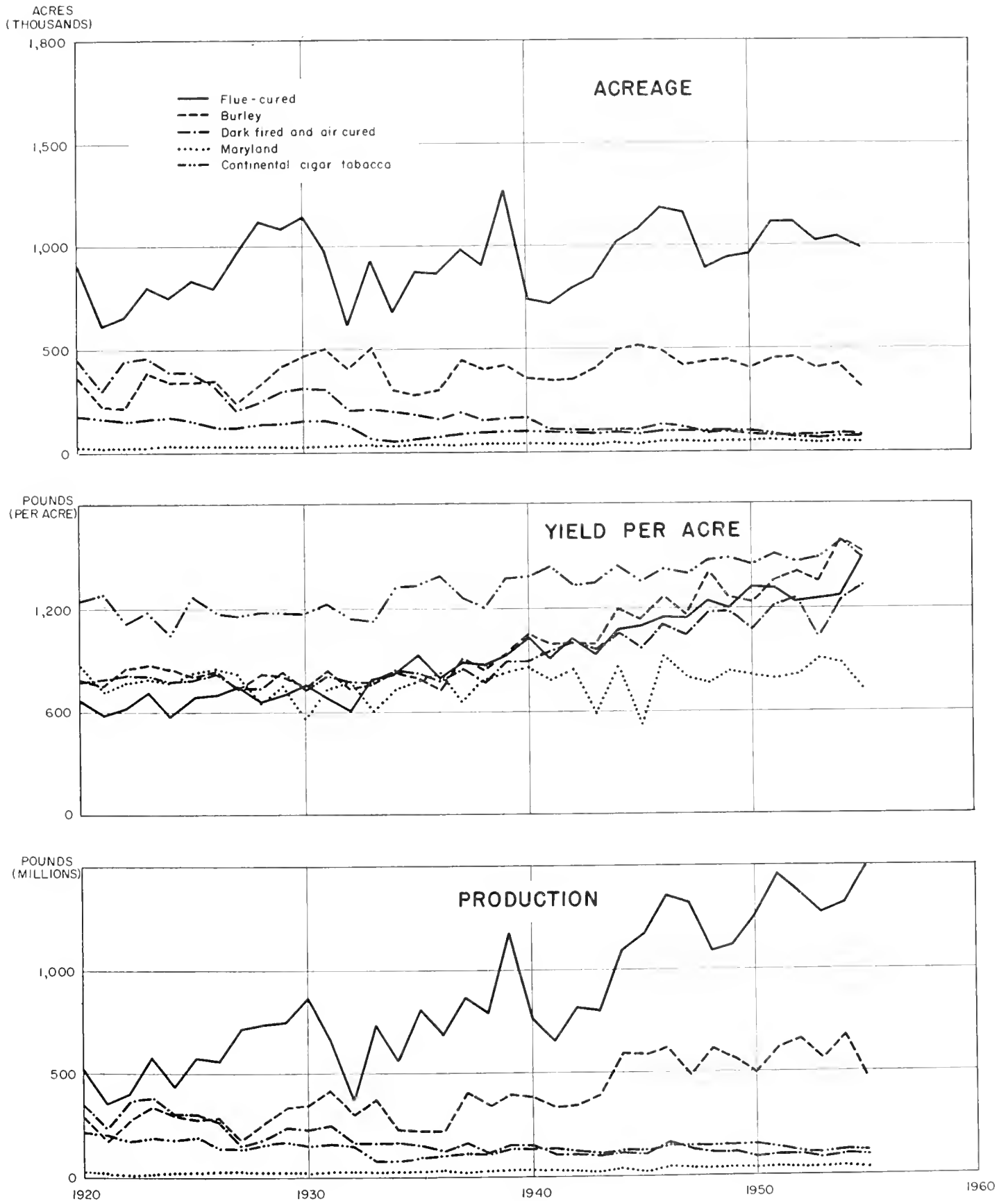


FIGURE 12

Acres in flue-cured and Burley tobaccos have increased only moderately since 1920 (see Figure 12). Acres in Maryland tobacco, although small, were about two-thirds greater in 1954 than in 1920. The big shifts have been in dark-fired and air-cured types. Comparing 1920-24 with 1950-54, the average acres in dark-fired and air-cured types declined from 412,000 acres to 77,000 acres, or 81 percent. During this same period acres in cigar types decreased from 167,000 to 81,000 acres.

Of the total acres in tobacco in the 1920-24 period, 41 percent was in flue-cured, 20 percent in Burley, 2 percent in Southern Maryland, 24 percent in dark-fired and air-cured, and 10 percent in cigar types. Total acres in tobacco were almost the same in the 1950-54 period as in the 1920-24 period, but in the latter, as a result of shifts in types, 62 percent was in flue-cured tobacco, 26 percent in Burley, 3 percent in Southern Maryland, 4 percent in dark-fired and air-cured types, and 5 percent in cigar types.

**Yield.**—Since the passage of the Agricultural Adjustment Act of 1933, major control programs have affected the production and marketing of most types of tobacco. Advances in technology, coupled with more intensive practices of farmers who wanted to grow more pounds on the "allotted" number of acres, have resulted in significant increases in yields per acre for most types of tobacco.

The average yield of all tobacco increased from 819 pounds in the 1910-14 period to 1,292 pounds in the 1950-54 period, or 58 percent. Most of the increase in yield has come since control programs were adopted, with the largest increase in pounds during the 1945-49 period. Yield per acre of flue-cured and Burley tobaccos almost doubled from 1920 to 1954 (see Figure 12). Unlike most types, yield per acre in Southern Maryland tobacco increased only slightly during the last 35 years: 786 pounds in the 1920-24 period and 836 pounds in the 1950-54 period. Yield per acre of dark-fired and air-cured types increased about 58 percent from 1920 to 1954. Yield per acre of the cigar type increased from an average of 1,176 pounds in the 1920-24 period to 1,498 pounds in the 1950-54 period.

**Production.**—Although there has not been a large change in acres of tobacco, higher yields per acre have brought a noteworthy increase in production. Average production of all tobacco in 1950-54 was 2,184 million pounds compared with 1,046 million pounds in 1910-14. Between 1920 and 1954, production of both flue-cured and Burley more than doubled. Production of Maryland tobacco increased the same as the increase in acres, or 62 percent. Production of dark-fired and air-cured types in 1954 was only one-fourth of the production in 1920. Production of cigar types declined from 224 million pounds in 1920 to 75 million pounds in 1934. Production increased again during the latter part of the 1930's and during the war years but was fairly constant from 1946 to 1950. It has declined again since that time—in 1954 it was 100 million pounds less than in 1920.

Since yield per acre has changed more for some types than for others, the change in the proportion that various types makes up of total production has been different from that of acreages. Of the total pounds of tobacco grown in the United States during the 1920-24 period, 37 percent was flue-cured, 21 percent Burley, 2 percent Maryland, 25 percent dark-fired and air-cured, and 15 percent cigar types. In the 1950-54 period, of the total pounds, 61 percent was flue-cured, 27 percent Burley, 2 percent Maryland, 4 percent dark-fired and air-cured, and 6 percent cigar types.

#### DISPOSITION OF SUPPLIES

From 1950 to 1954, of the total disappearance of tobacco each year, about three-fourths was in domestic uses and one-fourth was exported. The use for domestic purposes depends largely on per capita consumption, for only a very small proportion of the crop is used for other purposes.

**Trends in per capita consumption.**—The big increase in domestic use of tobacco from 1940 to 1953 was due to an increase in per capita consumption of tobacco products and to an increase in the number of people of smoking age. With the exception of the depression years, consumption per person 15 years and over in the United States was fairly constant from 1920 to 1940, varying from 8.75 to 9 pounds (see Figure 13). Consumption per person (including overseas armed forces) increased about 40 percent during the war years and reached a peak of 12.46 pounds in 1945. Consumption declined slightly after 1945 and was approximately 12 pounds per person of 15 years and over, from 1946 to 1950. Consumption was at an all time high in 1952 and 1953. It declined slightly in 1954 and increased slightly in 1955 but still was 5.8 percent below the peak reached in 1952.

TOBACCO PRODUCTS: CONSUMPTION PER CAPITA, 15 YEARS OLD AND OVER, IN THE UNITED STATES AND BY OVERSEAS FORCES: 1920-1955

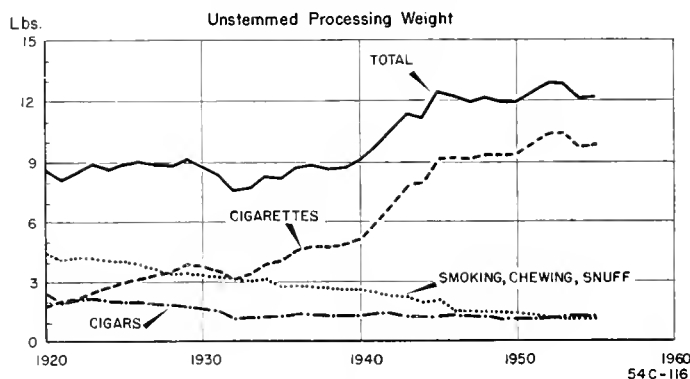


FIGURE 13

Reflecting the change from "strong" to "mild" tobacco and especially the increase in use of cigarettes, the trend in consumption per person 15 years and over has been different for different products. The consumption of tobacco in the form of cigarettes increased about 5 times from 1920 to 1955 or from 1.89 pounds to 9.83 pounds. Use for smoking, chewing, and snuff declined almost steadily each year, from 4.33 pounds in 1920 to 1.12 pounds in 1955. Average consumption in the form of cigars has declined since 1920 but has remained fairly constant since 1932.

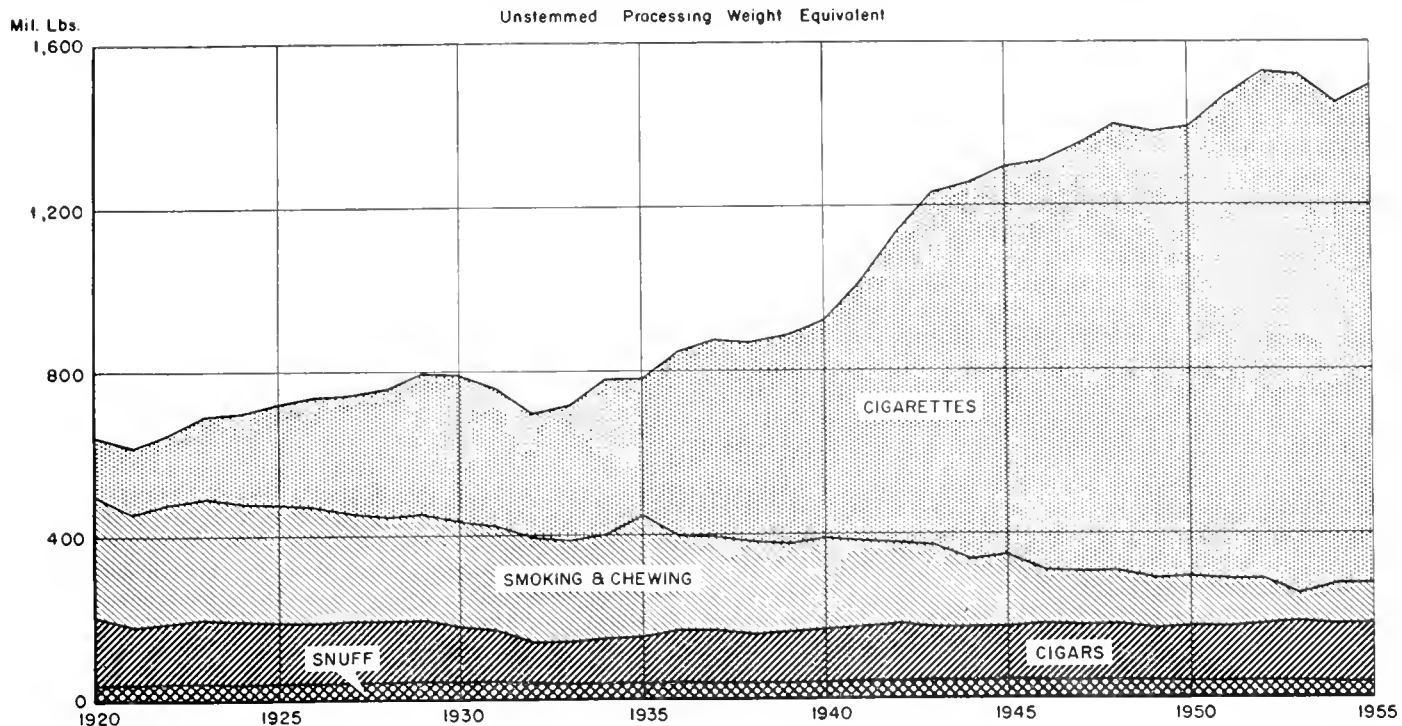
**Manufacture of products.**—In only 7 years from 1920 to 1955 was there a decrease compared with the preceding year in the amount of tobacco used in the manufacture of tobacco products (see Figure 14). The peak year was in 1952 when 1,526 million pounds were used—an increase of 138 percent over the 640 million pounds in 1920. Total leaf used in tobacco manufacture declined 4.3 percent from 1953 to 1954 but about half of this loss was regained in 1954.

In 1955 cigarettes accounted for a little more than four-fifths of the total leaf used in tobacco manufacture compared with a little more than one-half in 1935-39 and slightly more than one-fifth in 1920-24. The increase in leaf used in cigarette manufacture was a sharp contrast to the amount used in the manufacture of smoking and chewing tobacco which was only one-third as much in 1955 as in 1920. The total quantity of leaf used in the manufacture of both snuff and cigars declined only moderately from 1920 to 1955.

**Exports of leaf tobacco.**—Exports of leaf have always been a significant factor in the disposition of tobacco crop. In 1955, leaf tobacco was the third ranking agricultural export in dollar value, exceeded only by wheat and cotton. The total value of unmanufactured tobacco exported exceeded \$356 million. Over the years, with the increase in the quantity of tobacco used for domestic purposes, the proportion that exports make up of total disappearance has declined. In the 1925-29 period, exports were 43 percent of disappearance but declined to 26 percent in the 1950-54 period.



TOBACCO, LEAF: USED IN MANUFACTURE OF TOBACCO PRODUCTS, UNITED STATES, 1920-1955



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FIGURE 14

From 1925 to 1955, the peak year in exports was 1929 when 679 million pounds (farm-sales weight) were exported (see Figure 15). Exports declined sharply during the war and reached a low of 189 million pounds in 1940. After the cessation of hostilities they increased rapidly; 657 million pounds were exported in 1946. Since

1948 exports have amounted to 500 million pounds or more each year.

Flue-cured leaf accounts for slightly more than four-fifths of the total exports. Gradually exports of dark type tobacco have decreased. Since the war, exports of both Burley and cigar types

EXPORTS OF TOBACCO FROM THE UNITED STATES, BY CROP YEARS: 1925-55

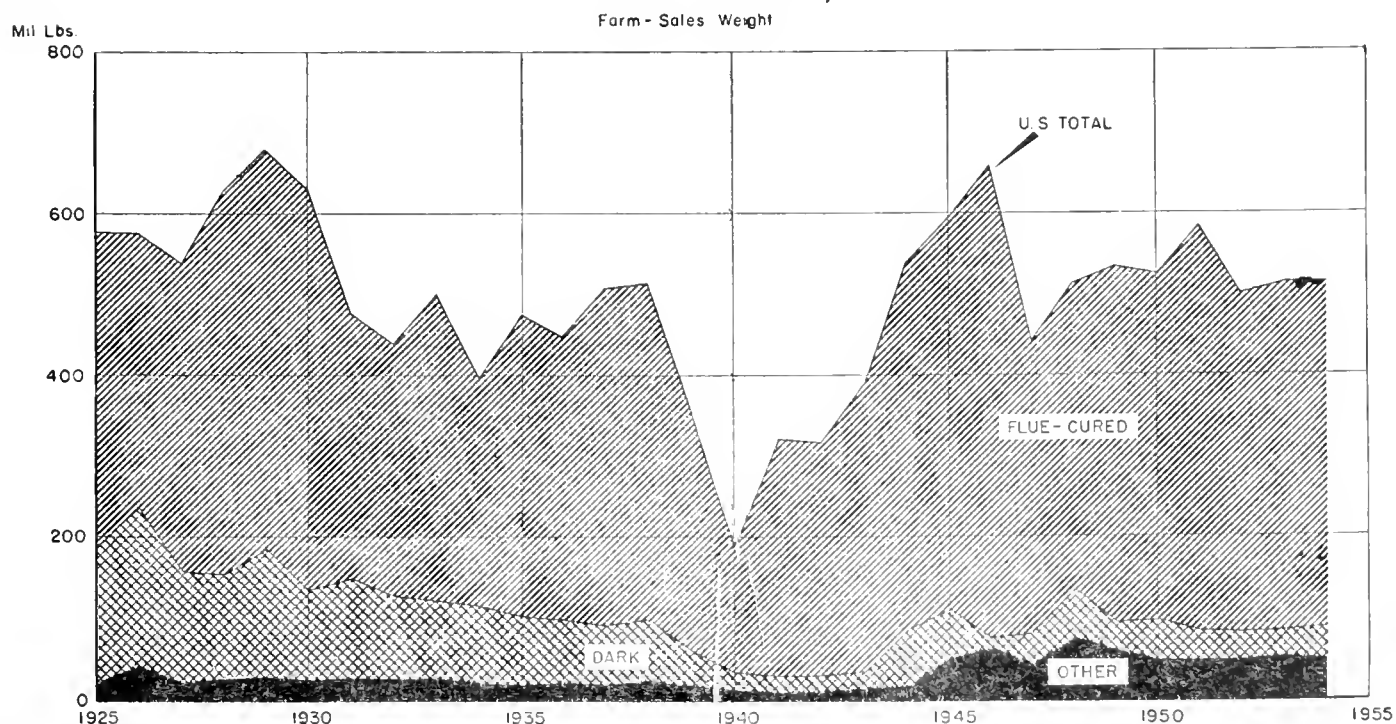


FIGURE 15

have increased. Shifts in consumer demand in foreign countries, as in the United States, for various kinds of tobacco products, mostly account for the increases in exports of certain types of leaf and the decline in others.

The United Kingdom has long been the principal export outlet for tobacco. Exports to China, the second most important prewar export outlet for United States leaf, have about disappeared. On the other hand, exports to the Netherlands, Germany, Ireland, the Philippines, and several other countries are now above prewar levels.

Favorable factors contributing to the export of tobacco in the last few years have been an improvement in economic conditions in many importing countries and the large United States imports from abroad which enable other countries to buy from this country. A very significant factor in the quantity exported in the postwar years has been the assistance to foreign countries under the various programs sponsored by the United States Government.

**Stocks.**—The general practice of tobacco manufacturers is to carry on hand enough tobacco for more than a year of operation. This is done in order that the leaf may “age.” Then too, by blending the leaf of two or more years’ growth, it is possible to smooth out variations that may come from differences in the effects of seasonal weather conditions on the crops.

Although the major types of tobacco have been grown under marketing quotas and acreage allotments most of the years since 1938, production during the last 10 years has tended to exceed the quantity used and exported. This has resulted in a progressive increase in stocks of tobacco on hand at the end of the crop year in relation to the disappearance of tobacco during the year. During the 1925–29 period the ratio of stocks to disappearance was 1.3 to 1. During the 1950–54 period the ratio was 1.7 to 1.

Of the total production of tobacco, flue-cured accounts for about three-fifths of the total and Burley, one-fourth. The change in the stocks of these two types accounts for most of the change in total stocks. At the beginning of the war stocks of

flue-cured were high but were reduced during the war and postwar years (see Figure 16). Stocks have been increasing since then. The ratio of stocks to disappearance during the 1950–54 period was 1.4 to 1. Stocks of Burley tobacco were decreased only slightly during the war and have continued to increase since that time (see Figure 17). The ratio of Burley stocks to disappearance in the 1950–54 period was 2 to 1.

**TOBACCO PROGRAMS AND POLICIES, 1935–55**

Since the depression of the early thirties, various control programs have been carried on in an effort to regulate the production of tobacco from year to year in line with requirements of domestic manufactures and for export. The first legislative basis for control programs was provided by the Agricultural Adjustment Act of 1933.

The production-adjustment program for tobacco was terminated as a result of the Supreme Court decision in January 1936, which invalidated the production control program carried out through contracts between the Federal Government and individual farmer and financed by processing taxes. However, tobacco programs were continued in 1936 and 1937 under the Soil Conservation and Domestic Allotment Act. This Act was designed to increase agricultural income primarily through payments for reducing soil-depleting acreages and the adoption of land use and farm practices which would conserve and build up soil fertility. The acreage control features of the new conservation program included the establishment of base acreages of soil-depleting crops of which tobacco was one, and payments to farmers for diversion of land from those base acreages to soil-conserving uses. Under this act production control became a byproduct whereas it was a primary object of the Agricultural Adjustment Act of 1933.

In February 1938, Congress enacted the Agricultural Adjustment Act of 1938 which has provided the legislative basis for the tobacco programs in effect since that time. The purpose of the 1938 act was as follows:

**TOBACCO, FLUE CURED: SUPPLY, DISAPPEARANCE AND FARMER'S PRICE, UNITED STATES, 1920-55**

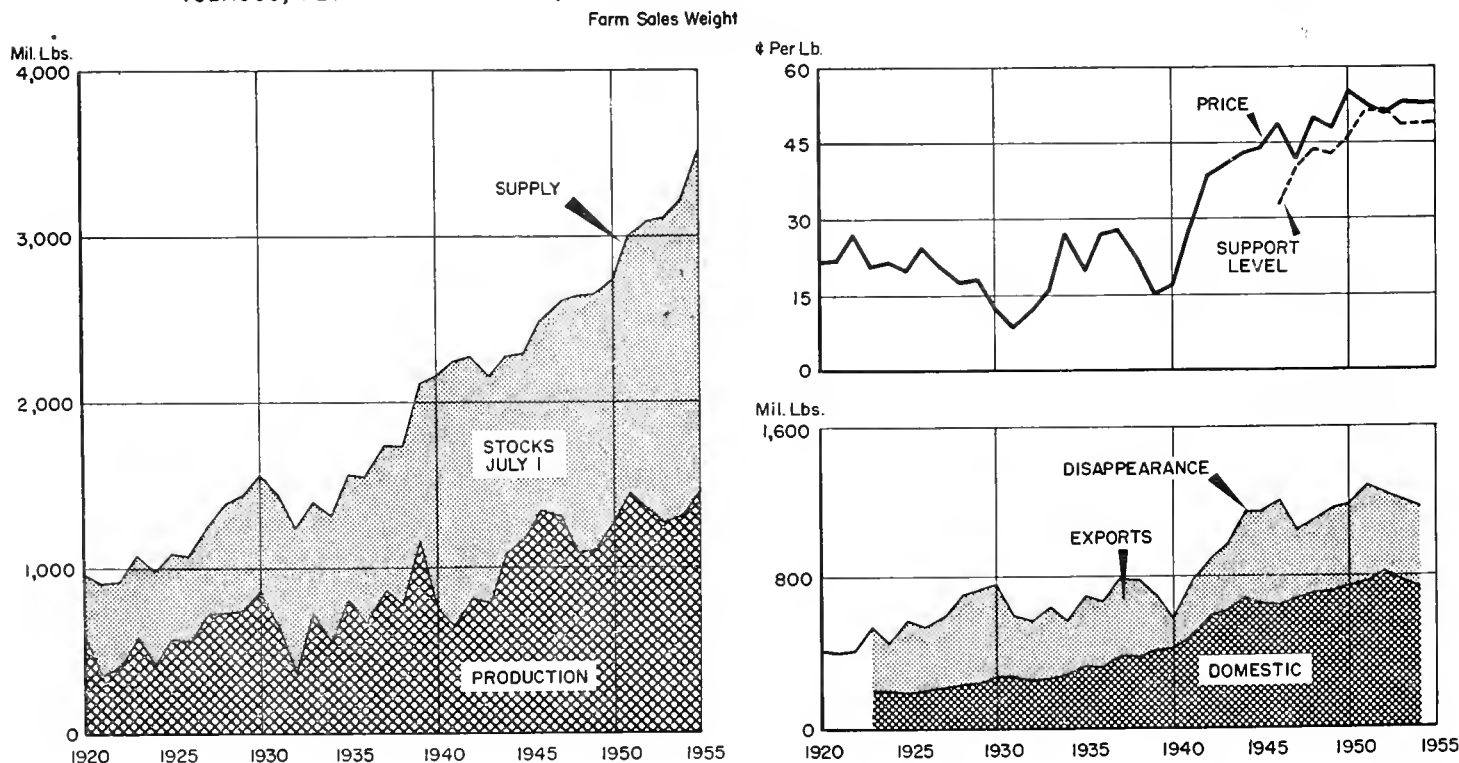


FIGURE 16

## TOBACCO, BURLEY: SUPPLY, DISAPPEARANCE AND FARMER'S PRICE UNITED STATES, 1920-55

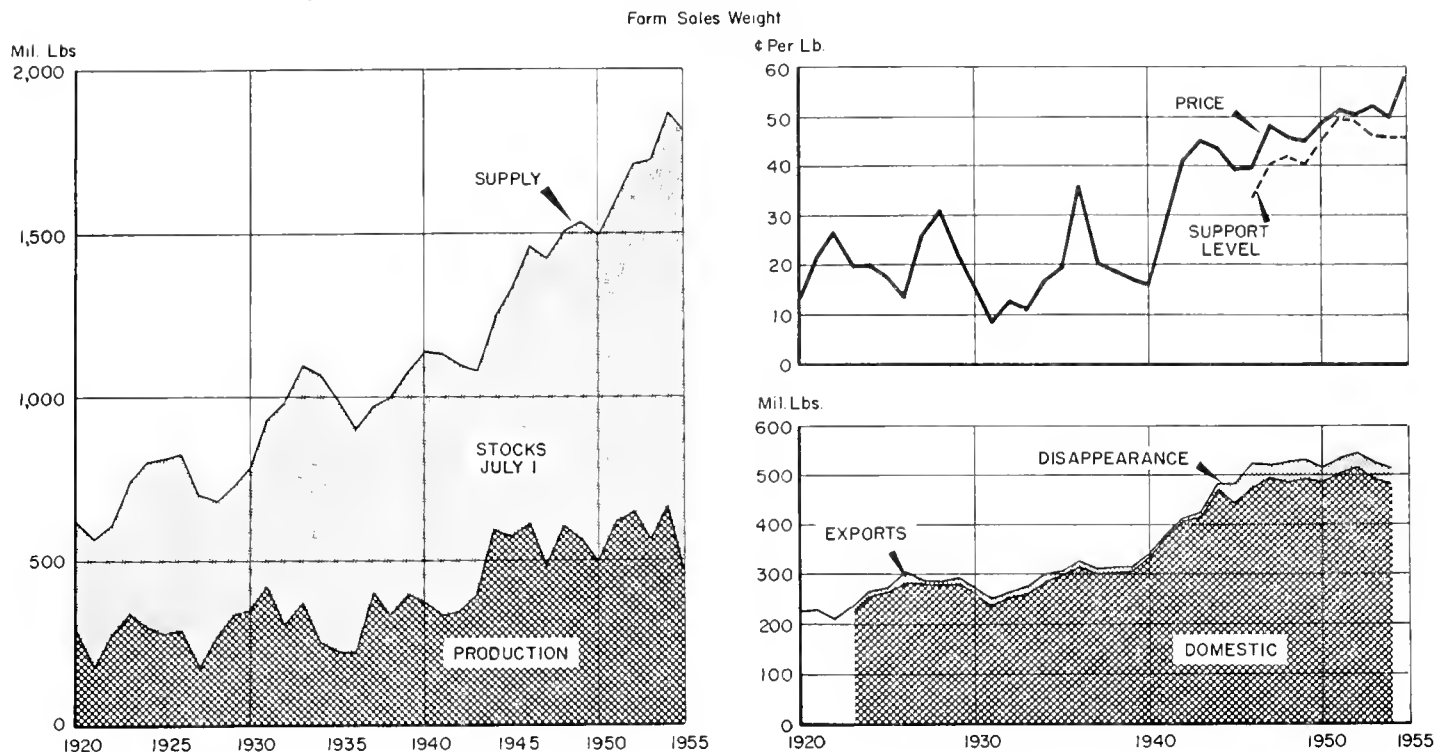


FIGURE 17

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(1) To conserve the Nation's soil resources and use them efficiently.

(2) To assist in the marketing of farm products for domestic consumption and exports.

(3) To regulate interstate and foreign commerce in cotton, wheat, corn, tobacco, and rice so as to—

(a) Minimize violent fluctuations in supplies, marketings, and prices of farm commodities;

(b) Protect consumers by maintaining adequate reserves of food and feed; and

(c) Assist farmers in obtaining a fair share of national income.

To conform with previous decisions of the Supreme Court, the acreage allotment and payment portions of the programs were separate and distinct from the marketing-quota portions. Acreage allotments were set up under the agricultural conservation program but marketing quotas became operative only under specified supply conditions and only if approved in a grower referendum.

Following the rejection of marketing quotas by tobacco growers for the 1939 season, a series of legislative amendments were made in the adjustment program. The most significant change provided that the Secretary of Agriculture could establish farm acreage allotments as a measure of the marketing quotas for farms rather than establishing marketing quotas in pounds. The 1940 program established the basic features of tobacco control programs to be followed in subsequent years. These basic features were (1) the conversion of marketing quotas to acreage allotments subject to specific provisions relating to minimum allotments, (2) permitting actual production on allotted acreage to be marketed penalty free, (3) a loan and purchase program to support prices at predetermined levels of parity, and (4) the adjustment of acreage allot-

ments as the long run technique of adjusting supplies to needs and thereby increasing prices.

Table 4 shows the number of allotted acres for various kinds of tobacco for which marketing quotas were in effect from 1940 to 1956. Tobacco programs were retained throughout the war even though for other commodities production controls were reversed. The wartime program was characterized by two general tendencies: (1) The expansion of acreage allotments for flue-cured and Burley tobacco after 1942 to meet wartime demands with emphasis on expanding production on small farms to meet increased war needs and (2) the inability of farmers to fully plant their expanded allotments due to wartime shortages of labor, fertilizer, barn space, and other facilities.

Policies followed also resulted in, especially for Burley tobacco, a large increase in the total number of allotments and spread of allotted and harvested acreage to sparse producing areas.

In the postwar period, adjustments have been made in national acreage allotments from the expanded levels of World War II in order to bring production more in line with needs. In 1956, the acreage allotted for flue-cured tobacco was 70.6 percent of the peak reached in 1946 and the allotment for Burley tobacco was only 50.7 percent of the peak acreage in 1945. This reduction in acreage has resulted in very small allotments for many tobacco growers. In 1956, on flue-cured tobacco farms, 52 percent of the growers had allotments of less than 3 acres; 79 percent of the Burley producers had allotments of less than 1 acre (see Table 5).

To support the price of tobacco, the Government has continued the loan and purchase program. Table 6 shows the average support price, the amount of tobacco pledged to the Commodity Credit Corporation for loans and the amount of stocks held by the Commodity Credit Corporation for flue-cured, Burley, and dark tobaccos for the period 1946-55.

TABLE 4.—TOBACCO: ACREAGES ALLOTTED BY TYPES, UNITED STATES: 1940 TO 1956

Year	Flue-cured	Burley	Southern Maryland <sup>1</sup>	Fire-cured	Dark air-cured <sup>1</sup>	Virginia	Cigar-filler <sup>1</sup> and binder <sup>2</sup>	Total
1940.....	758,210	374,605						1,132,815
1941.....	761,659	374,285		84,317	35,809			1,256,070
1942.....	841,222	378,720		80,935	35,781			1,336,658
1943.....	895,462	470,533		88,682	39,263			1,493,940
1944.....	1,095,127	588,833						1,683,960
1945.....	1,118,488	608,899						1,727,387
1946.....	1,257,225	557,335		117,614	47,908			1,980,082
1947.....	1,246,765	468,641		116,116	43,739			1,875,261
1948.....	908,000	463,192		77,342	33,443			1,481,977
1949.....	959,463	468,338		65,557	30,377			1,523,735
1950.....	968,595	418,250		56,560	26,559	4,350		1,474,314
1951.....	1,119,481	472,176		56,899	26,651	4,349	48,072	1,727,628
1952.....	1,127,371	474,747		56,773	26,673	4,756		1,690,320
1953.....	1,044,543	432,746	55,311	57,096	26,476	4,935	49,383	1,670,490
1954.....	1,053,135	399,451		55,847	23,248	6,111	46,877	1,584,669
1955.....	1,007,023	309,326		50,504	21,005	5,746	46,587	1,440,191
1956.....	887,584	308,707	53,353	50,113	20,730	5,526	38,372	1,364,385

<sup>1</sup> Marketing quotas not in effect in years for which no data were shown.<sup>2</sup> Includes types 42, 44, 51, 52, 53, 54, and 55.<sup>3</sup> Quotas terminated for 1943 prior to harvest.

Source: United States Department of Agriculture.

TABLE 5.—FLUE-CURED AND BURLEY TOBACCO—NUMBER OF ALLOTMENTS AND PERCENTAGE DISTRIBUTION BY ACRE-SIZE GROUPS, UNITED STATES: 1956

Size of allotment	Flue-cured tobacco	Burley tobacco
Total number of allotments.....	212,750	1,306,169
	Percent distribution	
0.01 to 0.49 acre.....	( <sup>2</sup> ) 11.0	19.5
0.50 to 0.99 acre.....	14.0	59.1
1.00 to 1.99 acres.....	18.9	14.2
2.00 to 2.99 acres.....	17.4	3.5
3.00 to 3.99 acres.....	16.5	1.8
4.00 to 4.99 acres.....	9.5	.7
5.00 to 9.99 acres.....	16.9	.9
10.00 to 19.99 acres.....	5.2	.2
20.00 to 49.99 acres.....	1.4	.1
50.00 acres or more.....	.2	(Z)
Total.....	100.0	100.0

Source: United States Department of Agriculture.

Z 0.05 percent or less.

<sup>1</sup> Compiled prior to enactment of Public Law 425 and does not include an estimated 600 "new farms."<sup>2</sup> Data not available. 14 percent of allotments are less than 1 acre.

Even though the average price received by farmers has often averaged above the support level, a considerable proportion of the crop has been pledged to the Commodity Credit Corporation in various years. This agency now owns sizable stocks of tobacco.

A study of the history of tobacco control programs indicates that they developed out of an attempt to solve a wide variety of problems. Over the years as problems changed the programs were modified. The present situation would indicate that new adjustments may be necessary in tobacco programs.

#### NUMBER, RESOURCES, AND CHARACTERISTICS OF SPECIALIZED TOBACCO FARMS

Data on other field-crop farms were summarized for the following subregions (see map on p. 5) in estimating the number of specialized tobacco producers and in determining resources used and characteristics of tobacco farms.

#### Types of tobacco

Types of tobacco	Subregion
1. Flue-cured tobacco.....	22, 23, 24, 25, 36, 37, 38
2. Burley tobacco.....	31, 32, 33, 44, 45, 52
3. Southern Maryland tobacco.....	19
4. Dark-fired and air-cured tobacco.....	20, 53

NOTE.—Data were not summarized for cigar types of tobacco.

#### Number and Use of Resources

Tobacco is an intensive crop requiring a large amount of hand labor. It uses less land and capital resources than many of the other major farm enterprises. Table 7 shows the total amount of agricultural resources and the amount of gross income from various sources for all commercial farms in the United States and for all commercial farms and specialized tobacco farms in the selected areas. (Other field-crop farms in tobacco areas will hereafter be designated as tobacco farms although in some cases peanuts represent the dominant source of income. On a few farms miscellaneous field crops other than peanuts or tobacco represent the primary source of income.) The proportion of total agriculture resources used by specialized tobacco producers are shown in Table 8.

There were 293,566 farms classified as other field-crop farms in these tobacco subregions. This number accounts for approximately 9 percent of the commercial farms shown by the 1954 Census. It includes 57 percent of the total number of farms reporting tobacco harvested in 1954. The production of tobacco on these farms amounted to 72 percent of the total tobacco harvested as reported in 1954, and 76 percent of all tobacco harvested on commercial farms.

In 1954, specialized tobacco farms used 7 percent of all labor resources but only 3 percent of the capital employed in agriculture and 2 percent of the cropland. They produced 4 percent of the gross farm income.

On a per-farm basis, tobacco farms rank below the average of all commercial farms in the United States (see Table 9). They have less cropland per farm, employ less capital and also receive a smaller gross farm income. However, the amount of labor per farm is about the same as the average for other commercial farms in the United States.

There are distinct differences between tobacco farms producing various types of tobacco and also between specialized tobacco farms and other commercial farms in the same area. Producers of Southern Maryland tobacco have the largest farms from the standpoint of average acres in cropland, have a much larger capital investment and a slightly larger gross farm income than producers of other types of tobacco. In each of the tobacco

TABLE 6.—TOBACCO: TOTAL UNITED STATES PRODUCTION, AVERAGE PRICE RECEIVED BY FARMERS, QUANTITIES PLEDGED FOR COMMODITY CREDIT CORPORATION LOANS, TOTAL STOCKS, AND COMMODITY CREDIT CORPORATION HOLDINGS, BY TYPE, BY CROP YEARS: 1946 TO 1955

[Green weight basis]

Crop year	Total production (million pounds)	Price support level (cents per pound)	Average price received by farmers (cents per pound)	Pledged to CCC for loans		Total stocks <sup>1</sup> (million pounds)	Held by CCC	
				Amount (million pounds)	Percent of crops		Amount (million pounds)	Percent of stocks
Flue-cured tobacco (as of July 1)								
1946	1,352.0	32.1	48.3	66.6	4.9	1,147.4	10.0	0.9
1947	1,317.5	40.0	41.2	232.3	16.4	1,286.8	62.0	4.8
1948	1,089.6	43.9	49.6	106.1	9.7	1,550.2	107.0	6.9
1949	1,114.5	42.5	47.2	103.5	9.3	1,538.2	127.0	8.2
1950	1,257.3	45.0	54.7	77.6	6.2	1,484.5	86.0	5.8
1951	1,452.7	50.7	52.4	142.2	9.8	1,557.5	85.0	5.4
1952	1,365.3	50.6	50.3	243.4	17.8	1,730.8	181.0	10.4
1953	1,272.7	47.9	52.8	151.4	11.9	1,851.9	238.0	12.8
1954	1,314.4	47.9	52.7	130.2	9.9	1,915.1	279.0	14.6
1955	1,483.0	48.3	52.7	296.3	20.0	2,056.6	330.0	16.0
Burley tobacco (as of Oct. 1)								
1946	611.0	33.6	39.7	147.8	24.1	853.3	16.0	1.9
1947	481.7	40.3	48.5	37.7	7.8	940.8	151.0	16.0
1948	602.9	42.4	46.0	96.7	16.0	902.3	96.0	10.6
1949	560.5	40.3	45.2	39.1	7.0	974.3	132.0	13.5
1950	499.0	45.7	49.0	44.2	8.8	1,000.2	111.0	11.1
1951	618.1	49.8	51.2	97.3	15.7	981.3	69.0	7.0
1952	650.1	49.5	50.3	103.9	16.0	1,061.2	122.9	11.6
1953	564.4	46.6	52.5	102.1	18.1	1,163.1	197.5	17.0
1954	667.2	46.4	49.8	221.4	33.2	1,198.1	228.0	19.0
1955	470.0	46.2	58.6	73.1	15.6	1,346.7	131.0	32.0
Dark tobacco (as of Oct. 1)								
1946	158.5	21.3	21.9	56.4	35.6	165.5	0.2	0.1
1947	123.6	29.2	28.4	45.8	37.0	216.1	53.7	24.8
1948	108.1	30.6	30.9	36.2	33.5	239.8	84.2	35.1
1949	108.3	29.1	29.3	22.9	21.1	231.3	95.7	41.4
1950	86.9	33.0	29.0	16.4	18.8	244.5	101.0	41.3
1951	91.2	36.0	38.0	14.8	16.2	219.0	75.7	34.6
1952	92.0	35.7	35.4	21.0	22.8	220.4	80.5	36.6
1953	75.5	33.6	31.0	15.7	20.8	224.0	92.0	41.1
1954	96.3	33.4	36.5	14.2	14.6	209.8	84.7	40.1
1955	96.3	33.4	35.3	16.0	16.6	217.9	84.8	38.9
All other <sup>2</sup> (as of Oct. 1)								
1946	200.6		41.6	12.8	6.4	351.0		
1947	193.8		37.1	11.1	5.7	372.5	0.9	0.2
1948	190.7		35.9	20.3	10.6	373.5	15.6	4.2
1949	194.3		33.1	15.9	8.2	362.4	15.8	4.4
1950	196.2		33.7	13.3	6.8	389.8	18.5	4.7
1951	182.5		32.0	10.8	5.9	412.0	23.4	5.7
1952	165.6		36.5	1.4	8	410.1	26.9	6.6
1953	166.3		39.3	13.6	8.2	388.8	19.4	5.0
1954	182.2		34.4	12.6	6.9	374.9	24.7	6.6
1955	160.7		33.0	20.2	12.6	396.8	23.1	5.8

<sup>1</sup> Dealers, manufacturers, and CCC holdings.

<sup>2</sup> Price support level for types 21-23 and 35-37 weighted on basis of total production.

<sup>3</sup> Shade grown wrapper and Perique not included.

TABLE 7.—NUMBER OF FARMS AND RESOURCES FOR ALL COMMERCIAL FARMS AND OTHER FIELD-CROP FARMS IN THE UNITED STATES, AND IN SELECTED TOBACCO AREAS: 1954

Item	United States		Total, four areas		Tobacco areas							
	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	Flue-cured		Burley		Southern Maryland		Dark-fired and air-cured	
					All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms
Total farms..... number	3,327,889	367,733	478,810	293,566	238,218	166,232	189,794	104,645	12,967	4,546	37,831	18,143
All land in farms..... thousand acres	1,032,493	33,685	54,881	21,467	25,216	11,114	21,977	8,315	2,496	467	5,192	1,571
Total cropland..... thousand acres	431,585	17,593	25,310	10,558	10,495	5,097	10,942	4,316	1,175	233	2,898	912
Production of tobacco..... million pounds	1,822	1,538	1,570	1,388	1,019	943	404	334	39	37	108	74
Tobacco sold..... million dollars	923	787	785	639	537	497	184	154	16	15	48	33
Other crops sold..... million dollars	11,033	677	464	125	235	89	186	29	17	2	26	5
All livestock and livestock products sold..... million dollars	12,223	129	528	77	131	26	278	42	56	2	63	7
Forestry products sold..... million dollars	120	4	25	3	16	2	6	1	1	(Z)	2	(Z)
All farm products sold..... million dollars	24,299	1,597	1,802	903	919	614	654	226	90	18	139	45
Total capital..... million dollars	110,545	4,986	6,917	3,073	3,089	1,778	2,710	1,017	515	109	603	169
Man-equivalent of labor..... number	4,891,935	556,898	555,720	392,774	279,969	250,436	209,614	116,600	21,433	5,828	44,684	19,890

Z 0.5 or less.

TABLE 8.—PROPORTION THAT NUMBER OF FARMS, RESOURCES USED, AND GROSS SALES ON COMMERCIAL FARMS IN SPECIFIC TOBACCO AREAS WERE OF THE TOTAL FOR ALL COMMERCIAL FARMS IN THE UNITED STATES: 1954

Item	Number of farms	All land in farms (thousand acres)	Acres of cropland (thousands)	Total capital invested (million dollars)	Man-equivalent of labor (number)	All farm products sold (million dollars)	Tobacco sold (million dollars)	Production of tobacco (million pounds)
United States	3,327,889	1,032,493	431,585	110,545	4,891,035	24,299	923	1,822
Percent of United States total								
United States:								
All commercial farms	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other field-crop farms	11.1	3.3	4.1	4.5	11.4	6.6	85.3	84.4
Other commercial farms	88.9	96.7	95.9	95.5	88.6	93.4	14.7	15.6
Total, four areas:								
All commercial farms	14.4	5.2	5.9	6.3	11.3	7.5	85.0	86.1
Other field-crop farms	8.7	2.1	2.5	2.8	8.0	3.7	75.7	76.2
Other commercial farms	5.7	3.1	3.4	3.5	3.3	3.8	9.3	9.9
Flue-cured tobacco:								
All commercial farms	7.2	2.4	2.4	2.8	5.7	3.8	58.2	55.9
Other field-crop farms	5.0	1.1	1.2	1.6	5.1	2.5	53.8	51.8
Other commercial farms	2.2	1.3	1.2	1.2	.6	1.3	4.4	4.1
Burley tobacco:								
All commercial farms	5.7	2.1	2.5	2.5	4.3	2.7	19.9	22.2
Other field-crop farms	3.1	.8	1.0	.9	2.4	.9	16.7	18.3
Other commercial farms	2.6	1.3	1.5	1.6	1.9	1.8	3.2	3.9
Southern Maryland tobacco:								
All commercial farms	.4	.2	.3	.5	.4	.4	1.7	2.1
Other field-crop farms	.1	(Z)	.1	.1	.1	.1	1.6	2.0
Other commercial farms	.3	.2	.2	.4	.3	.3	.1	.1
Dark-fired and air-cured tobacco:								
All commercial farms	1.1	.5	.7	.5	.9	.6	5.2	5.9
Other field-crop farms	.5	.2	.2	.2	.4	.2	3.6	4.1
Other commercial farms	.6	.3	.5	.3	.5	.4	1.6	1.8

Z 0.05 percent or less.

TABLE 9.—NUMBER OF COMMERCIAL FARMS AND SPECIFIED CHARACTERISTICS PER FARM FOR THE UNITED STATES AND FOR SELECTED TOBACCO REGIONS: 1954

Item	United States	Flue-cured		Burley		Southern Maryland		Dark-fired air-cured	
		All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms
Number of farms	3,327,889	238,218	166,232	189,794	104,645	12,367	4,546	37,831	18,143
Average per farm									
Land in farms	310	106	67	116	79	193	103	137	87
Total cropland	130	44	31	58	41	91	51	77	50
All farm products sold	7,302	3,859	3,697	3,446	2,160	6,883	4,018	3,680	2,480
Tobacco sold	277	2,254	2,992	968	1,468	1,218	3,293	1,265	1,816
Man-equivalent of labor	1.47	1.15	1.51	1.13	1.11	1.65	1.28	1.18	1.10
Investment in:									
Land and buildings	25,437	10,267	8,505	10,687	7,317	33,149	19,479	11,281	6,474
Livestock	3,154	679	438	1,268	698	2,944	709	1,488	688
Machinery	4,291	2,019	1,757	2,324	1,705	4,506	3,529	3,184	2,141
Total	32,882	12,965	10,700	14,279	9,720	40,599	23,717	15,953	9,303

areas, the specialized tobacco farms had less cropland, a smaller capital investment and lower gross income than other commercial farms in the area.

#### Distribution of Farms and Selected Resources, by Economic Class of Farm

A smaller proportion of tobacco farms than all commercial farms fall in the higher income groups in the United States. Of

the total tobacco farms in the areas summarized, only 1.8 percent were in Economic Classes I and II as compared to 17.5 percent of all commercial farms in these two groups for the United States (see Table 10). Seventy-two percent of all Burley producers were in Economic Classes V and VI as compared to 37 percent in these two classes for all commercial farms.

Table 10 shows how selected resources of specialized tobacco farms are distributed among various economic classes of farms.

Farms in Economic Classes I, II, and III are the larger farms. On the basis of the number of farms, Classes I, II, and III farms operate a much larger proportion of the farmland, have more capital, produce a larger share of the tobacco, and receive a larger proportion of the gross farm income. However, the proportion of the man-equivalents of labor used on these farms is not much greater than the proportion that the number of these farms comprise of all commercial farms.

Class I, II, and III farms comprise 17 percent of the farms, but produce 34 percent of the tobacco in the flue-cured area; in the Burley area, they comprise 8 percent of the farm, but produce 27 percent of the tobacco; in the Southern Maryland area, they represent 30 percent of the farms, but produce 54 percent of the tobacco; and in the dark-fired and air-cured tobacco areas they represent 6 percent of the farms, but produce 17 percent of the tobacco (see Table 11).

Variation in Types of Farming in Specified Tobacco Areas

The production of tobacco is highly specialized, and, in the various production areas, the proportion of farmers receiving a

TABLE 10.—NUMBER OF COMMERCIAL FARMS IN THE UNITED STATES AND DISTRIBUTION OF OTHER FIELD-CROP FARMS IN SELECTED TOBACCO AREAS, BY ECONOMIC CLASS OF FARM: 1954

Area	Number of farms	Percent distribution of farms by economic class					
		I	II	III	IV	V	VI
United States, all commercial farms.....	3,327,889	4.0	13.5	21.2	24.4	22.9	14.0
Other field-crop farms:							
Flue-cured tobacco.....	166,232	.2	1.7	14.8	41.6	32.5	9.2
Burley tobacco.....	104,645	.1	1.2	6.7	20.3	36.1	35.6
Southern Maryland tobacco.....	4,546	.8	7.1	22.0	35.8	27.6	6.7
Dark-fired and air-cured tobacco.....	18,143	.1	.6	5.4	26.0	43.1	24.8
Total, four tobacco areas.....	293,566	.2	1.6	11.4	32.9	34.3	19.6

TABLE 11.—SELECTED RESOURCES ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO AREAS AND DISTRIBUTION AMONG VARIOUS ECONOMIC CLASSES OF FARMS: 1954

Item	Unit	Percent distribution by economic class of farm						
		Total	I	II	III	IV	V	VI
Flue-cured tobacco								
Number of farms.....	Number.....	166,232	0.2	1.7	14.8	41.6	32.5	9.2
All land in farms.....	Thousand acres.....	11,114	2.2	5.7	22.3	39.6	24.7	5.5
Total cropland.....	Thousand acres.....	5,097	1.9	6.0	24.0	41.5	22.4	4.3
Production of tobacco.....	Million pounds.....	913	1.4	5.5	27.1	43.9	19.6	2.5
Gross sales.....	Million dollars.....	614	2.0	6.4	27.9	43.2	18.4	2.3
Total capital invested.....	Million dollars.....	1,778	1.6	5.8	24.9	41.6	21.8	4.3
Man-equivalent of labor.....	Number.....	250,456	1.4	3.2	19.1	42.3	27.1	6.9
Burley tobacco								
Number of farms.....	Number.....	104,645	0.1	1.2	6.7	20.3	36.1	35.6
All land in farms.....	Thousand acres.....	8,315	.9	3.2	11.2	25.3	34.8	24.6
Total cropland.....	Thousand acres.....	4,316	1.3	4.2	14.1	27.0	33.0	20.2
Production of tobacco.....	Million pounds.....	314	1.2	6.5	19.4	31.6	28.3	13.0
Gross sales.....	Million dollars.....	226	1.8	7.1	19.5	31.0	28.3	12.4
Total capital invested.....	Million dollars.....	1,017	2.0	6.8	17.0	26.7	30.0	17.5
Man-equivalent of labor.....	Number.....	116,600	.5	2.2	8.7	22.4	34.1	32.0
Southern Maryland tobacco								
Number of farms.....	Number.....	4,546	0.8	7.1	22.0	35.8	27.6	6.7
All land in farms.....	Thousand acres.....	467	2.6	15.2	33.4	29.5	16.1	3.2
Total cropland.....	Thousand acres.....	233	3.0	16.7	33.9	28.8	14.6	3.0
Production of tobacco.....	Million pounds.....	37	4.2	19.6	32.4	27.3	12.5	1.5
Gross sales.....	Million dollars.....	18	5.6	22.2	33.3	27.8	11.1	(Z)
Total capital invested.....	Million dollars.....	109	.9	16.5	31.2	30.3	18.3	2.8
Man-equivalent of labor.....	Number.....	5,828	1.9	14.3	27.9	34.0	17.7	4.3
Dark-fired and air-cured tobacco								
Number of farms.....	Number.....	18,143	0.1	0.6	5.4	26.0	43.1	24.8
All land in farms.....	Thousand acres.....	1,571	.4	3.1	11.6	31.1	37.7	16.2
Total cropland.....	Thousand acres.....	912	.5	3.4	11.7	33.0	37.2	14.1
Production of tobacco.....	Million pounds.....	74	1.9	2.6	13.6	37.3	35.1	9.5
Gross sales.....	Million dollars.....	45	2.2	2.2	15.6	37.8	33.3	8.9
Total capital invested.....	Million dollars.....	169	.6	4.1	13.0	32.5	37.3	12.4
Man-equivalent of labor.....	Number.....	19,890	.2	1.5	7.2	29.7	39.8	21.7

Z 0.05 percent or less.

TABLE 12.—NUMBER AND PERCENT DISTRIBUTION OF COMMERCIAL FARMS, BY TYPE OF FARM IN SELECTED TOBACCO AREAS: 1954

Item	Flue-cured tobacco area	Burley tobacco area	Southern Maryland tobacco area	Dark-fired and air-cured tobacco area	Total, four areas
Number of commercial farms.....	238,218	189,794	12,967	37,831	478,810
Percent of commercial farms classified as—					
All farms.....	100.0	100.0	100.0	100.0	100.0
Field-crop farms other than vegetable and fruit-and-nut, total.....	85.3	59.5	39.1	53.9	71.4
Other field-crop.....	69.8	55.1	35.0	48.0	61.4
Cash-corn.....	1.6	3.0	4.1	4.8	2.4
Cotton.....	13.9	1.4	.....	1.1	7.6
Vegetable farms.....	.4	.6	2.1	.1	.5
Fruit-and-nut farms.....	.2	.7	1.6	.9	.5
Dairy farms.....	1.2	9.2	15.1	9.7	5.4
Poultry farms.....	1.4	4.0	7.8	3.0	2.7
Livestock farms other than dairy or poultry.....	4.6	14.6	25.0	13.3	9.8
General farms, total.....	6.0	10.3	7.1	18.3	8.8
Primarily crop.....	4.0	2.1	1.1	5.1	3.3
Primarily livestock.....	.1	1.1	1.8	1.0	.6
Crop and livestock.....	1.9	7.1	4.2	12.2	4.9
Miscellaneous.....	.9	1.1	2.2	.8	1.0

major portion of their income from tobacco is often quite high. For the four major types of tobacco, the proportion of commercial farms classified as other field-crop farms varied from a high of 70 percent in the flue-cured areas to a low of 35 percent in Southern Maryland (see Table 12). The second most important type of farm in the flue-cured area was cotton farms. Livestock farms, other than dairy or poultry, were the second most important type of farm in each of the other areas.

Tenure of Operator

The tobacco farms are characterized by a high percentage of tenancy and a large number of nonwhite operators in some of the areas. In 1954, nonwhite operators operated 36 percent of the subregion flue-cured tobacco farms, 26 percent of the Southern Maryland tobacco farms, but only 2 percent of the Burley tobacco farms (see Table 13). Tenants operated 56 percent of the flue-cured farms, 28 percent of the Burley farms, 38 percent of the Southern Maryland farms, and 36 percent of the dark-fired and air-cured farms.

TABLE 13.—COLOR AND TENURE OF FARM OPERATORS ON OTHER FIELD-CROP FARMS IN SPECIFIED TOBACCO AREAS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco							
Total number of operators.....	166,232	326	2,875	24,557	69,131	53,976	15,367
Percent of operators:							
White.....	64	89	87	74	65	61	48
Nonwhite.....	36	11	13	26	35	39	52
Owners, part owners, or managers.....	44	81	56	39	38	48	59
Croppers.....	30	6	18	30	33	28	24
Other tenants.....	27	12	26	31	29	24	18
Burley tobacco							
Total number of operators.....	104,645	118	1,240	7,001	21,223	37,770	37,293
Percent of operators:							
White.....	98	100	99	98	98	98	98
Nonwhite.....	2		1	2	2	2	2
Owners, part owners, or managers.....	72	79	55	52	62	72	82
Croppers.....	13		10	12	17	15	8
Other tenants.....	15	21	34	36	21	13	10
Southern Maryland tobacco							
Total number of operators.....	4,546	37	321	1,001	1,626	1,255	306
Percent of operators:							
White.....	74	86	98	83	74	67	51
Nonwhite.....	26	14	2	17	26	33	49
Owners, part owners, or managers.....	62	59	72	60	57	68	64
Croppers.....	16	14	3	14	17	20	20
Other tenants.....	22	27	25	26	26	12	16
Dark-fired and air-cured tobacco							
Total number of operators.....	18,143	26	113	978	4,703	7,823	4,500
Percent of operators:							
White.....	81	100	91	92	85	82	74
Nonwhite.....	19		9	8	15	18	26
Owners, part owners, or managers.....	64	42	82	67	54	62	75
Croppers.....	22	19	9	19	28	24	15
Other tenants.....	14	39	9	14	18	14	10

In each subregion, the percentage of operators that were nonwhite increased as the size of operation decreased. There was no consistent relationship between size of farm and the percentage of operators classified as owners, part owners, managers, or tenants.

#### PRODUCTION CONDITIONS BY ECONOMIC CLASS OF FARM PRODUCING VARIOUS TYPES OF TOBACCO

Types of farms are likely to differ from each other in several factors such as size, use of resources, and production efficiency. Farms that grow the same product or similar products vary from one area to another or one region to another. The typical farm in the United States, however, is the "family-size" farm—a size of unit that can be worked by the operator and his family with only moderate hired help.

Data are presented on a per-farm basis for some of the main characteristics of farms that produce various types of tobacco. These data show variations between tobacco farms producing various types of tobacco and make it possible to compare tobacco farms with farms of other types. Subregion or subregions were selected as representative of the various types of tobacco. Data are given for subregions 24 and 25 for flue-cured tobacco, subregions 32 and 45 for Burley tobacco, subregion 19 for Southern Maryland tobacco, and subregion 53 for dark-fired and air-cured tobacco.

In each case the data are given by economic class of farm to show variations between size of operation. In analyzing these

TABLE 14.—NUMBER AND SIZE OF OTHER FIELD-CROP FARMS IN SELECTED AREAS IN SPECIFIED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Number of farms.....	49,070	48	1,196	10,969	23,039	11,243	2,575
Total acres per farm.....	51	392	140	69	45	38	31
Total crop acres per farm.....	27	195	73	40	25	17	11
Percent of total acres in cropland.....	53	50	52	58	56	45	35
Flue-cured tobacco (subregion 25)							
Number of farms.....	43,975	30	167	2,300	14,264	20,464	6,750
Total acres per farm.....	72	244	275	149	88	58	45
Total crop acres per farm.....	27	128	114	58	34	22	15
Percent of total acres in cropland.....	37	52	41	39	38	37	33
Burley tobacco (subregion 45)							
Number of farms.....	29,442	97	1,103	5,725	11,471	8,201	2,845
Total acres per farm.....	85	611	199	121	82	58	38
Total crop acres per farm.....	52	469	144	82	49	31	19
Percent of total acres in cropland.....	62	77	72	68	60	53	50
Burley tobacco (subregion 32)							
Number of farms.....	22,150	5	45	257	1,926	8,306	11,611
Total acres per farm.....	61	528	207	174	102	66	48
Total crop acres per farm.....	29	216	88	98	52	32	20
Percent of total acres in cropland.....	47	41	43	57	52	49	42
Southern Maryland tobacco (subregion 19)							
Number of farms.....	4,546	37	321	1,001	1,626	1,255	306
Total acres per farm.....	103	338	223	156	85	60	48
Total crop acres per farm.....	51	194	122	79	41	27	22
Percent of total acres in cropland.....	50	57	55	51	49	45	45
Dark-fired and air-cured tobacco (subregion 53)							
Number of farms.....	13,829	26	97	755	3,681	6,090	3,180
Total acres per farm.....	83	298	411	179	96	73	51
Total crop acres per farm.....	56	216	297	121	70	47	31
Percent of total acres in cropland.....	67	72	72	68	73	65	61

data, it should be kept in mind that classifications of farms by amount of gross sales were based on data for 1 year—1954. In areas of specialized crop production, gross sales are determined largely by the yield of the specialized crop produced. A low yield may result in farms falling in one class in a given year although they would normally fall in a different class in another year. In some cases, the number of farms in a group, especially Class I, may be too small to provide reliable averages.

**Size of farm.**—Specialized tobacco farms are not usually very large from the standpoint of area. Such farms in Southern Maryland averaged 103 acres, and this was twice the average size of flue-cured tobacco farms in subregion 24 (see Table 14). The size of farm decreased with the decrease in gross sales. About half of the farms in Burley area, subregion 32, were in Economic Class VI and these Class VI farms averaged only 48 acres and 20 acres of cropland per farm. Normally the acres of cropland on Class I farms were 10 to 20 times as large as the acres of cropland on Class VI farms.

About one-third or more of the tobacco farms in each of the selected subregions were less than 30 acres in size (see Table 15). Less than 10 percent of the farms in each area had 260 acres or more. Only a very small percentage of the farms in Class V or VI in any of the subregions had more than 140 acres.



TABLE 15.—PERCENT DISTRIBUTION, BY SIZE OF FARM OF OTHER FIELD-CROP FARMS IN SPECIFIED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Size of farm (acres per farm)	Percent distribution for each economic class of farm						
	All farms	I	II	III	IV	V	VI
Fine-cured tobacco (subregion 24)							
Under 10 acres.....	6			(Z)	2	13	38
10 to 29 acres.....	38		1	18	45	48	28
30 to 69 acres.....	36	21	29	51	36	25	22
70 to 139 acres.....	15	10	37	23	13	19	8
140 to 259 acres.....	4	21	22	6	3	3	3
260 to 499 acres.....	1	31	8	2	1	1	1
500 acres and over.....	(Z)	17	3	(Z)	(Z)	(Z)	
Fine-cured tobacco (subregion 25)							
Under 10 acres.....	13			(Z)	3	15	32
10 to 29 acres.....	25		6	9	24	28	22
30 to 69 acres.....	24	33	12	15	23	26	26
70 to 139 acres.....	21	33	21	33	31	22	14
140 to 259 acres.....	11	17	30	29	15	7	4
260 to 499 acres.....	3		15	12	4	1	1
500 acres and over.....	(Z)	17	16	2	(Z)	(Z)	(Z)
Burley tobacco (subregion 45)							
Under 10 acres.....	19		1	9	16	25	34
10 to 29 acres.....	15		16	14	15	13	21
30 to 69 acres.....	19		5	12	17	27	28
70 to 139 acres.....	29	5	16	28	35	28	13
140 to 259 acres.....	14	21	35	28	15	6	3
260 to 499 acres.....	4	36	22	8	2	1	1
500 acres and over.....	1	38	5	1	(Z)	(Z)	
Burley tobacco (subregion 32)							
Under 10 acres.....	14			2	4	12	16
10 to 29 acres.....	22			2	17	21	25
30 to 69 acres.....	33		22	21	26	30	36
70 to 139 acres.....	22		33	37	28	27	18
140 to 259 acres.....	7		22	18	18	9	4
260 to 499 acres.....	2		11	16	6	1	1
500 acres and over.....	(Z)	100	11	5	1	(Z)	(Z)
Southern Maryland tobacco (subregion 19)							
Under 10 acres.....	10			(Z)	6	18	38
10 to 29 acres.....	18		5	5	21	28	16
30 to 69 acres.....	21	27	9	14	26	24	25
70 to 139 acres.....	26	14	20	37	30	18	10
140 to 259 acres.....	17	27	30	30	14	10	11
260 to 499 acres.....	6		31	10	3	2	
500 acres and over.....	2	32	5	3	1	(Z)	(Z)
Dark-fired and air-cured tobacco (subregion 53)							
Under 10 acres.....	10		5	1	5	10	19
10 to 29 acres.....	20			7	21	21	20
30 to 69 acres.....	24	38		11	17	25	34
70 to 139 acres.....	29			20	34	32	23
140 to 259 acres.....	12		21	40	18	9	4
260 to 499 acres.....	4	58	36	19	5	2	
500 acres and over.....	1	4	38	3	(Z)	(Z)	(Z)

Z 0.5 percent or less.

**Color, tenure, and age of operator.**—The proportion of operators, white and nonwhite, varies considerably for farms growing different types of tobacco. Nonwhite operators are important only in the flue-cured subregions and in Southern Maryland (see Table 16). In 1954, nonwhite operators operated 38 percent of the farms in flue-cured subregion 24, and 26 percent in the Southern Maryland area. There were no nonwhite operators of Class I farms in either of the flue-cured areas. In both the flue-cured and Southern Maryland areas nonwhite operators increased as the size of farm decreased.

In all of the tobacco areas the proportion of operators that are tenants is high, but it is highest on the flue-cured farms. In subregion 24, only 40 percent of the white and 17 percent of the nonwhite operators were either owners, part owners, or managers; in subregion 25, the corresponding percents were 56 and 32, respec-

tively. In both subregions generally the percentage of tenancy decreased as size of farm decreased, especially for the nonwhite operators. In both subregions, a larger proportion of the nonwhite operators than white operators were croppers.

In the other tobacco areas, the proportion of white operators classified as owners, part owners, or managers was 57 and 76 percent in Burley subregions 45 and 32, respectively, 71 percent in the Southern Maryland subregion, and 65 percent in the dark-fired and air-cured area. There was no consistent relation between size of farm and percentage of tenancy in any area. Croppers were less frequent in these than in the flue-cured tobacco subregions.

Table 17 shows the proportion of operators in various age groups. There are distinct differences among the subregions in the age distribution of operators. In the flue-cured subregions and Burley subregion 45, the proportion of operators under 35 is much higher than in the other subregions. In the latter subregions (32, 19, and 53) about two-fifths of the operators were more than 55 years old. This would indicate the necessity of combining units as the older operators retire from farming.

There was some relation between size of farm and age of operator. Generally in all areas except subregion 24, a larger proportion of the operators of Class VI farms are in the older age groups, and a high percentage of the operators are more than 65 years of age.

**Land use.**—The land use on other field-crop farms in 1954 in the specialized tobacco areas is shown in Table 18. With the exception of Burley subregion 45 and the dark-fired and air-cured tobacco subregion, about half of the total land in farms was in cropland. Generally, farms in Class I have the highest percentage of total land in cropland and farms in Class VI, the lowest.

There was very little pastureland on farms in the flue-cured subregions. With the exception of woodland pastured, this was true even for Classes I and II farms. About three-fifths of the total cropland in Burley subregion 45 and one-third in subregion 32 was in cropland pasture. In addition, about 17 percent of the farmland in the 2 subregions was in nonwoodland pastureland; only a very small percentage of this was reported as improved pasture.

Generally the type of crops grown on specialized tobacco farms were definitely different in the various tobacco areas. In both of the flue-cured tobacco subregions, corn is the largest crop from the standpoint of acreage (see Table 19). Cotton is important on a number of farms in subregion 24 but very little is grown on farms in subregion 25. Small grains are more important on farms in subregion 25 than in subregion 24. The cropping system also varies by economic class of farm. In subregion 24, peanuts, small grains for grain, or soybeans are grown mainly on Classes I and II farms. Small grains are more important on the larger than on the smaller farms in subregion 25.

Corn is the largest crop from the standpoint of acreage on farms in the Burley subregions. No cotton or peanuts are grown on these farms. Some small grains are grown mainly on the larger farms. Hay is much more important on farms in the Burley subregion than in the flue-cured areas.

In the Southern Maryland subregion, the average acreage in tobacco is slightly greater than that in corn for grain. The cropping system does not vary much by economic class of farm, except that the larger farms grow more small grains and soybeans. In the dark-fired and air-cured subregion, about half of the cropland harvested is in corn for grain. Slightly more than 10 percent of the cropland harvested is in tobacco and about one-fifth of the cropland is in hay.

The variation by subregion in acres of tobacco per farm is shown in Table 20. In flue-cured subregion 24, the largest percent of the farms had 5 to 9.9 acres in tobacco; in subregion 25, the



TABLE 17.—DISTRIBUTION OF FARM OPERATORS BY AGE ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Age group	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Burley tobacco (subregion 45)							
Number of operators reporting age.....	28,441	96	1,063	5,600	11,111	7,866	2,705
Percent reporting:							
Under 25 years.....	5	1	3	4	6	5	
25 to 34 years.....	17	14	14	19	20	15	8
35 to 44 years.....	25	22	35	35	27	19	12
45 to 54 years.....	22	34	25	25	24	20	16
55 to 64 years.....	17	19	16	13	16	20	20
65 years and over.....	14	11	10	6	9	19	39
Total.....	100	100	100	100	100	100	100
Burley tobacco (subregion 32)							
Number of operators reporting age.....	21,505	5	45	252	1,821	8,131	11,251
Percent reporting:							
Under 25 years.....	3				2	2	3
25 to 34 years.....	11			14	9	14	9
35 to 44 years.....	21	100	33	36	33	26	16
45 to 54 years.....	25		22	22	33	27	22
55 to 64 years.....	22		22	16	13	19	25
65 years and over.....	19		22	12	9	12	26
Total.....	100	100	100	100	100	100	100
Southern Maryland tobacco (subregion 19)							
Number of operators reporting age.....	4,491	32	321	996	1,611	1,235	296
Percent reporting:							
Under 25 years.....	2		2	2	2	2	3
25 to 34 years.....	12	31	5	15	14	13	5
35 to 44 years.....	21	19	15	18	22	24	15
45 to 54 years.....	27	34	36	29	29	22	14
55 to 64 years.....	21		22	24	21	20	15
65 years and over.....	17	16	20	13	11	19	48
Total.....	100	100	100	100	100	100	100
Dark-fired and air-cured tobacco (subregion 53)							
Number of operators reporting age.....	13,154	26	97	735	3,536	5,760	3,000
Percent reporting:							
Under 25 years.....	4		5	3	4	4	4
25 to 34 years.....	11		2	12	17	11	5
35 to 44 years.....	22	38	26	29	27	23	14
45 to 54 years.....	25	19	15	36	26	25	20
55 to 64 years.....	22	19	31	12	17	22	29
65 years and over.....	16	23	21	8	9	15	28
Total.....	100	100	100	100	100	100	100

TABLE 18.—AVERAGE ACREAGE PER FARM FOR SPECIFIED USES OF LAND ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Use of land	Average acres per farm by economic class of farm						
	All farms	I	II	III	IV	V	VI
Flue-cured tobacco (subregion 25)							
Cropland harvested.....	18.1	103.8	77.1	40.7	23.4	14.4	8.5
Cropland pastured.....	3.0	1.7	18.9	7.1	3.5	2.3	2.1
Cropland not harvested and not pastured.....	5.8	22.8	17.9	10.4	6.8	5.0	4.3
Total cropland.....	26.9	128.3	113.9	58.2	33.7	21.7	14.9
Woodland pastured.....	5.3	28.7	28.4	10.9	6.7	4.2	3.4
Woodland not pastured.....	31.9	80.0	99.6	63.3	38.6	26.5	21.7
Improved pasture.....	1.2	.8	11.2	4.4	1.5	.8	.4
Not improved pasture.....	2.9	1.7	12.6	6.9	3.7	2.2	1.8
Other land.....	3.5	5.0	9.2	5.4	4.1	3.1	2.7
Total.....	71.7	244.5	274.9	149.1	88.3	58.5	44.9
Burley tobacco (subregion 45)							
Cropland harvested.....	19.9	182.7	56.9	32.3	18.6	11.0	5.6
Cropland pastured.....	30.3	284.0	83.3	46.9	28.0	18.2	11.5
Cropland not harvested and not pastured.....	2.3	2.7	3.6	2.7	2.6	1.8	1.8
Total cropland.....	52.5	469.4	143.8	81.9	49.2	31.0	18.9
Woodland pastured.....	9.2	26.2	12.2	9.6	10.2	8.5	4.3
Woodland not pastured.....	4.5	11.6	2.8	4.0	4.8	4.3	5.3
Improved pasture.....	1.1	12.3	1.8	2.5	1.0	.4	.1
Not improved pasture.....	13.2	68.6	28.5	17.4	12.9	10.2	6.5
Other land.....	4.3	23.1	9.8	5.6	4.2	3.2	2.7
Total.....	84.8	611.2	198.9	121.0	82.3	57.6	37.8
Burley tobacco (subregion 32)							
Cropland harvested.....	15.8	201.0	48.0	52.7	31.8	18.5	10.2
Cropland pastured.....	10.4	10.0	28.8	41.3	17.4	11.9	7.5
Cropland not harvested and not pastured.....	2.3	5.0	11.3	4.5	3.2	1.8	2.4
Total cropland.....	28.5	216.0	88.1	98.5	52.4	32.2	20.1
Woodland pastured.....	6.7		34.1	16.3	9.6	7.4	5.4
Woodland not pastured.....	13.8	45.0	42.3	29.5	17.0	13.7	12.9
Improved pasture.....	.7	36.0	5.2	2.6	1.3	.9	.5
Not improved pasture.....	9.0	195.0	34.9	20.4	18.4	9.1	7.0
Other land.....	2.2	36.0	1.9	6.6	2.8	2.4	1.8
Total.....	60.9	528.0	206.5	173.9	101.5	65.7	47.7
Southern Maryland tobacco (subregion 19)							
Cropland harvested.....	29.9	126.1	80.2	45.9	24.6	13.9	7.2
Cropland pastured.....	10.5	38.9	25.0	17.5	8.4	4.6	4.9
Cropland not harvested and not pastured.....	10.8	29.2	16.7	15.9	8.3	8.3	9.5
Total cropland.....	51.2	194.2	121.9	79.3	41.3	26.8	21.6
Woodland pastured.....	5.7	15.1	12.9	8.9	4.4	3.5	2.1
Woodland not pastured.....	37.1	69.5	72.8	52.8	31.8	25.2	20.6
Improved pasture.....	.4	3.4	2.2	.8	.1	.1	
Not improved pasture.....	2.3	6.7	3.7	3.9	2.3	.7	1.6
Other land.....	6.0	49.0	9.1	10.2	4.7	3.3	2.3
Total.....	102.7	337.9	222.6	155.9	84.6	59.6	48.2
Dark-fired and air-cured tobacco (subregion 53)							
Cropland harvested.....	28.3	172.8	173.0	66.6	37.4	23.0	13.0
Cropland pastured.....	19.7	38.3	91.1	43.3	23.8	17.1	11.9
Cropland not harvested and not pastured.....	7.6	4.5	32.6	11.6	8.3	7.2	6.2
Total cropland.....	55.6	215.6	296.7	121.5	69.5	47.3	31.1
Woodland pastured.....	6.0	3.9	16.0	16.8	5.6	5.7	4.3
Woodland not pastured.....	10.3	22.9	44.6	22.8	9.9	9.6	8.2
Improved pasture.....	.6	4.8	4.3	2.4	.7	.4	.4
Not improved pasture.....	4.5	45.4	11.9	5.7	4.5	4.3	3.7
Other land.....	5.5	6.2	37.4	9.7	5.6	5.5	3.4
Total.....	82.5	297.8	410.9	178.9	95.8	72.8	51.1

TABLE 18.—AVERAGE ACREAGE PER FARM FOR SPECIFIED USES OF LAND ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Use of land	Average acres per farm by economic class of farm						
	All farms	I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Cropland harvested.....	24.6	178.8	67.0	36.8	22.9	14.7	9.0
Cropland pastured.....	.9	7.4	3.4	1.4	.8	.6	.5
Cropland not harvested and not pastured.....	1.3	8.8	3.0	1.3	1.2	1.4	1.4
Total cropland.....	26.8	195.0	73.4	39.5	24.9	16.7	10.9
Woodland pastured.....	2.2	19.5	7.3	2.5	1.7	2.2	1.9
Woodland not pastured.....	18.6	164.6	52.2	23.6	15.9	15.8	16.2
Improved pasture.....	.3	6.8	1.0	.4	.3	.2	.2
Not improved pasture.....	.8	.5	2.4	.8	.6	.8	.5
Other land.....	1.9	5.5	4.2	2.2	1.7	1.8	1.3
Total.....	50.6	391.9	140.5	69.0	45.1	37.5	31.0

TABLE 19.—AVERAGE ACREAGE OF CROPS GROWN ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Crop	Average acres per farm by economic class of farm						
	All farms	I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Total cropland harvested.....	24.6	178.9	67.0	36.8	22.9	14.7	9.0
Selected crops:							
Peanuts grown for all purposes.....	.5	6.8	1.8	1.1	.4	.1	.1
Corn for grain.....	11.5	82.5	31.9	17.4	10.9	6.3	3.6
Cotton.....	2.7	11.4	6.2	3.9	2.6	1.7	.7
Tobacco.....	5.7	37.5	14.2	8.2	5.3	3.7	2.3
Small grain for grain.....	.9	24.0	3.7	1.4	.8	.5	.4
Soybeans for beans.....	.5	11.7	3.2	.8	.4	.1	(Z)
All hay.....	1.3	8.3	2.6	1.7	1.2	1.1	1.0
Flue-cured tobacco (subregion 25)							
Total cropland harvested.....	18.1	103.8	77.1	40.7	23.4	14.4	8.5
Selected crops:							
Peanuts grown for all purposes.....	(Z)				(Z)	(Z)	(Z)
Corn for grain.....	5.4	29.5	15.2	9.8	6.9	4.7	2.9
Cotton.....	.1	.2	.9	.3	.2	.1	.1
Tobacco.....	4.8	34.5	17.5	9.8	6.3	4.0	2.3
Small grain for grain.....	2.8	24.2	18.1	7.9	3.9	1.9	.9
Soybeans for beans.....	(Z)		.2	.1	(Z)	(Z)	(Z)
All hay.....	4.4	27.7	24.2	11.6	5.8	3.3	1.9
Burley tobacco (subregion 45)							
Total cropland harvested.....	19.9	182.7	56.9	32.3	18.6	11.0	5.6
Selected crops:							
Peanuts grown for all purposes.....							
Corn for grain.....	5.7	27.6	11.6	9.2	5.7	3.4	2.2
Cotton.....							
Tobacco.....	3.7	25.8	10.9	5.9	3.6	2.1	1.1
Small grain for grain.....	1.3	33.9	6.8	2.5	.8	.3	.1
Soybeans for beans.....	(Z)			(Z)	(Z)	(Z)	(Z)
All hay.....	7.9	56.7	21.6	12.8	7.6	4.6	2.0
Burley tobacco (subregion 32)							
Total cropland harvested.....	15.8	201.0	48.0	52.7	31.8	18.5	10.2
Selected crops:							
Peanuts grown for all purposes.....							
Corn for grain.....	4.6	15.0	2.8	11.8	7.5	5.4	3.4
Cotton.....	(Z)				(Z)	(Z)	
Tobacco.....	1.2	20.0	3.0	2.9	2.4	1.5	.8
Small grain for grain.....	2.0	28.0	11.6	11.5	5.4	2.4	.8
Soybeans for beans.....	(Z)						(Z)
All hay.....	7.4	135.0	18.7	24.9	15.4	8.6	4.7
Southern Maryland tobacco (subregion 19)							
Total cropland harvested.....	29.9	126.1	80.2	45.9	24.6	13.9	7.2
Selected crops:							
Peanuts grown for all purposes.....							
Corn for grain.....	9.7	24.8	26.4	14.3	8.5	4.5	2.5
Cotton.....							
Tobacco.....	10.0	48.1	25.2	14.2	9.0	5.2	3.5
Small grain for grain.....	3.7	19.3	11.0	6.5	2.8	1.2	.1
Soybeans for beans.....	1.2	2.4	2.8	2.0	.7	1.0	
All hay.....	4.3	24.6	10.4	8.0	3.3	1.4	.8
Dark-fired and air-cured tobacco (subregion 53)							
Total cropland harvested.....	28.3	172.8	173.0	66.6	37.4	23.0	13.0
Selected crops:							
Peanuts grown for all purposes.....							
Corn for grain.....	15.1	46.9	54.9	30.3	19.6	13.5	7.9
Cotton.....	(Z)				(Z)	(Z)	
Dark-fired and air-cured tobacco.....	2.0	10.1	7.9	4.4	2.8	1.7	.8
Burley tobacco.....	1.2	18.6	3.7	2.5	1.6	1.1	.7
Small grain for grain.....	3.0	41.6	51.2	11.7	4.6	1.5	.4
Soybeans for beans.....	.1		3.4	.3	(Z)	(Z)	(Z)
All hay.....	5.3	39.4	33.9	13.6	7.0	4.1	2.5

Z 0.05 acre or less.

largest percent of the farms were in the 2.5 to 4.9 acre group. Forty-three percent of the farmers in Burley subregion 45 had 2.5 to 4.9 acres in tobacco but 93 percent of the farmers in subregion 32 grew less than 2.5 acres in tobacco. Only 19 percent of the growers of Southern Maryland tobacco grew less than 5 acres of tobacco in 1954 and one-third of the producers grew from 10 to 19.9 acres. About one-third dark fire-cured tobacco farms had less than 2.5 acres in 1954 and 89 percent of the growers of dark air-cured tobacco, grew less than 2.5 acres in 1954. On some farms both dark-fired and dark air-cured tobacco were grown.

For all types of tobacco, the acres of tobacco per farm increased as the gross farm income increased. No Class I flue-cured tobacco farms had less than 20 acres in tobacco.

**Livestock.**—The livestock kept on specialized tobacco farms varies somewhat in the different types of tobacco areas (see Table 21). In the flue-cured regions, it is kept mainly to supply products for home consumption. In subregion 24, milk cows were reported on 24 percent of the farms as compared with 66 percent in subregion 25.

Farms in the Burley subregions and the dark-fired and air-cured have more livestock than farms in the other subregions. Livestock is used to supplement the income from tobacco on many of the farms.

In all subregions the amount of livestock increased with the increase in gross income, especially for beef cattle and hogs. Many of the larger farmers found the adding of livestock enterprises profitable as the resources were used to better advantage and the income from tobacco was supplemented.

**Labor used.**—Except on the larger farms, the farm organization of tobacco farms is planned around the farm family. Hired labor was relatively unimportant except on the Classes I and II farms. Family labor made up a larger proportion of the labor force on flue-cured farms than for any of the other types of tobacco (see Table 22). The average crop acres per man was smallest in the flue-cured and highest in the dark-fired and air-cured subregions.

As to be expected, the average man-equivalents of labor increased as the size of farm operations increased. However, the amount of labor on large farms was only 3 to 4 times the amount on small farms.

The majority of the operators of tobacco farms spend full time on the farm business. In each subregion except Southern Maryland, two-thirds or more of the operators reported no days of work off farm (see Table 23). For the operators who did work off farm, the days worked were less than 100. Size of farm apparently had little to do with whether operators work off farm or the time spent at nonfarm work. In most cases, a slightly higher proportion of the operators of large farms, than of smaller farms, reported off-farm work, but the difference was not great.

**Farm mechanization and home conveniences.**—Tobacco production requires a great deal of hand labor especially during the harvest season. The number of crop acres per farm is usually small. Operators have been slow to mechanize, partly because of the small size of the unit and partly because of the fact that machinery has not been developed to completely mechanize the harvesting operations. If enough labor is available to harvest tobacco, it usually means a surplus for preharvest work.

With the exception of the Southern Maryland area, tractors were reported on slightly less than half of the farms, averaging about 0.5 tractor per farm (see Table 24). The number of motor-trucks was even smaller, averaging only about 0.3 truck per farm. The percentage of operators reporting motortrucks varied from 80 percent in Southern Maryland to 40 percent in Burley subregion 32.

TABLE 20.—DISTRIBUTION OF FARMS REPORTING BY ACRES OF TOBACCO HARVESTED, FOR OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Acres of tobacco harvested	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Farms reporting tobacco harvested.....number..	48,929	48	1,196	10,943	23,039	11,188	2,515
Percent distribution by acres harvested:							
Under 2.5 acres.....	7		(Z)	1	14	70	
2.5 to 4.9 acres.....	37		2	6	40	68	23
5.0 to 9.9 acres.....	47		12	67	58	18	6
10.0 to 19.9 acres.....	9		73	27	1	(Z)	1
20.0 acres and over.....	(Z)	100	12	(Z)			
Total.....	100	100	100	100	100	100	100
Flue-cured tobacco (subregion 25)							
Farms reporting tobacco harvested.....number..	43,445	30	167	2,280	14,154	20,249	6,565
Percent distribution by acres harvested:							
Under 2.5 acres.....	14			1	7	66	
2.5 to 4.9 acres.....	44			2	22	70	31
5.0 to 9.9 acres.....	38		12	52	73	23	3
10.0 to 19.9 acres.....	4		40	46	4	(Z)	
20.0 acres and over.....	(Z)	100	48	(Z)			
Total.....	100	100	100	100	100	100	100
Burley tobacco (subregion 45)							
Farms reporting tobacco harvested.....number..	29,367	97	1,098	5,725	11,421	8,181	2,845
Percent distribution by acres harvested:							
Under 2.5 acres.....	34			(Z)	12	72	99
2.5 to 4.9 acres.....	43		2	28	75	28	1
5.0 to 9.9 acres.....	20		10	42	68	13	(Z)
10.0 to 19.9 acres.....	3		29	52	4		
20.0 acres and over.....	(Z)	100	61	4			
Total.....	100	100	100	100	100	100	100
Burley tobacco (subregion 32)							
Farms reporting tobacco harvested.....number..	22,095	5	45	257	1,926	8,306	11,556
Percent distribution by acres harvested:							
Under 2.5 acres.....	93			4	56	95	100
2.5 to 4.9 acres.....	7		11	84	44	5	(Z)
5.0 to 9.9 acres.....	(Z)		78	12	(Z)		
10.0 to 19.9 acres.....	(Z)	100	11				
20.0 acres and over.....							
Total.....	100	100	100	100	100	100	100
Southern Maryland tobacco (subregion 19)							
Farms reporting tobacco harvested.....number..	4,526	32	311	996	1,626	1,255	306
Percent distribution by acres harvested:							
Under 2.5 acres.....	4				1	4	43
2.5 to 4.9 acres.....	15				2	40	52
5.0 to 9.9 acres.....	39		3	12	57	54	5
10.0 to 19.9 acres.....	33		24	75	38	2	
20.0 acres and over.....	9	100	74	13	2		
Total.....	100	100	100	100	100	100	100
Dark-fired tobacco (subregion 53)							
Farms reporting tobacco harvested.....number..	6,504	21	72	465	2,066	2,800	1,080
Percent distribution by acres harvested:							
Under 2.5 acres.....	35			4	14	39	82
2.5 to 4.9 acres.....	46		28	30	53	55	17
5.0 to 9.9 acres.....	18	48	21	57	33	6	1
10.0 to 19.9 acres.....	1	48	51	9			
20.0 acres and over.....	(Z)	4					
Total.....	100	100	100	100	100	100	100

TABLE 20.—DISTRIBUTION OF FARMS REPORTING BY ACRES OF TOBACCO HARVESTED, FOR OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Acres of tobacco harvested	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Dark air-cured tobacco (subregion 53)							
Farms reporting tobacco harvested.....number..	4,257	1	36	245	1,050	1,995	930
Percent distribution by acres harvested:							
Under 2.5 acres.....	89	100	72	80	84	90	95
2.5 to 4.9 acres.....	9		14	10	13	9	5
5.0 to 9.9 acres.....	2		14	10	3	1	
10.0 to 19.9 acres.....							
20.0 acres and over.....							
Total.....	100	100	100	100	100	100	100

Z 0.05 percent or less.

TABLE 21.—AVERAGE NUMBER OF LIVESTOCK PER FARM ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Kind of livestock	All farms		Average number per farm by economic class of farm					
	Percent of farms reporting	Average number per farm	I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)								
Horses and mules.....	60	1.1	1.8	2.1	1.4	1.0	0.9	0.7
Milk cows.....	28	.4	5.3	.8	.5	.4	.4	.4
Other cattle.....	NA	7	7.7	3.6	1.2	.6	.3	.4
All hogs and pigs.....	69	6.1	17.7	15.2	9.4	5.8	3.4	2.5
Chickens.....	76	25.6	29.1	49.6	33.3	25.0	19.0	15.5
Flue-cured tobacco (subregion 25)								
Horses and mules.....	66	1.1	3.0	3.1	2.1	1.4	1.0	0.8
Milk cows.....	66	1.2	2.0	6.2	2.6	1.5	1.0	.7
Other cattle.....	NA	1.4	11.5	13.9	5.6	1.8	.9	.5
All hogs and pigs.....	75	2.7	8.7	9.0	6.2	3.4	2.2	1.4
Chickens.....	71	21.6	15.0	72.3	41.9	26.1	18.7	13.0
Burley tobacco (subregion 45)								
Horses and mules.....	56	1.2	4.1	1.6	1.3	1.2	1.1	0.9
Milk cows.....	69	3.3	6.4	5.8	4.7	3.6	2.3	1.3
Other cattle.....	NA	5.4	93.1	24.3	9.8	4.0	2.2	1.1
All hogs and pigs.....	43	3.9	32.2	13.1	6.9	3.4	1.9	1.3
Chickens.....	76	33.6	44.0	42.7	41.8	35.6	27.1	24.3
Burley tobacco (subregion 32)								
Horses and mules.....	60	1.0	5.0	1.1	1.3	1.3	1.1	0.9
Milk cows.....	80	2.7	12.0	8.8	9.4	5.3	3.3	1.7
Other cattle.....	NA	3.3	208.0	22.8	17.9	7.6	3.9	1.6
All hogs and pigs.....	66	2.2		5.1	4.3	3.5	2.7	1.5
Chickens.....	82	33.5	180.0	34.9	68.4	48.6	37.7	27.2
Southern Maryland tobacco (subregion 19)								
Horses and mules.....	43	0.8	0.7	1.1	1.1	0.8	0.5	0.5
Milk cows.....	46	1.4	4.2	2.6	2.1	1.5	.7	.5
Other cattle.....	NA	4.0	15.5	14.0	8.3	2.2	1.0	.4
All hogs and pigs.....	59	4.6	11.5	11.7	7.5	4.1	1.9	1.4
Chickens.....	69	39.6	68.9	50.2	61.6	38.1	26.0	17.5
Dark-fired and air-cured tobacco (subregion 53)								
Horses and mules.....	54	1.1	1.7	1.9	1.4	1.0	1.1	1.0
Milk cows.....	62	2.6	9.3	10.3	5.8	3.3	2.2	1.3
Other cattle.....	NA	4.0	28.0	47.6	12.2	5.0	2.8	1.5
All hogs and pigs.....	56	4.8	12.3	28.8	12.5	6.7	3.8	2.1
Chickens.....	81	35.5	52.4	84.9	49.2	40.1	33.6	29.1

NA Not available.

TABLE 22.—SOURCE OF LABOR ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Man-equivalent per farm, total.....	1.73	4.94	3.17	2.17	1.67	1.39	1.20
Operator.....	.90	.90	1.00	.94	.91	.85	.88
Unpaid family labor.....	.49	.54	.71	.67	.47	.85	.23
Hired labor.....	.34	3.50	1.46	.56	.29	.16	.09
Flue-cured tobacco (subregion 25)							
Man-equivalent per farm, total.....	1.46	1.70	2.42	2.03	1.66	1.34	1.17
Operator.....	.87	.63	.85	.90	.90	.84	.85
Unpaid family labor.....	.50	.40	.62	.85	.65	.43	.29
Hired labor.....	.09	.67	.95	.28	.11	.07	.03
Burley tobacco (subregion 45)							
Man-equivalent per farm, total.....	1.20	4.67	2.10	1.45	1.20	0.97	0.92
Operator.....	.83	.53	.89	.90	.87	.75	.77
Unpaid family labor.....	.21	.15	.28	.26	.21	.17	.13
Unpaid labor.....	.16	3.69	.93	.29	.12	.05	.02
Burley tobacco (subregion 32)							
Man-equivalent per farm, total.....	1.05	7.60	1.67	1.42	1.25	1.06	0.99
Operator.....	.81	.80	.69	.80	.83	.79	.83
Unpaid family labor.....	.21	.18	.18	.39	.36	.24	.15
Hired labor.....	.03	6.80	.80	.23	.06	.03	.01
Southern Maryland tobacco (subregion 19)							
Man-equivalent per farm, total.....	1.28	3.00	2.60	1.62	1.22	0.82	0.82
Operator.....	.70	.86	.76	.78	.76	.56	.70
Unpaid family labor.....	.26	.17	.40	.36	.26	.17	.09
Hired labor.....	.32	1.97	1.44	.48	.20	.09	.03
Dark-fired and air-cured tobacco (subregion 53)							
Man-equivalent per farm, total.....	1.06	1.73	2.62	1.39	1.19	0.98	0.94
Operator.....	.84	.85	.79	.89	.89	.81	.83
Unpaid family labor.....	.15	.15	.35	.23	.22	.13	.09
Hired labor.....	.07	.73	1.48	.27	.08	.04	.02

TABLE 23.—WORK OFF FARM BY FARM OPERATORS OF OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	Percent of operators reporting for each economic class of farm						
	All farms	I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Days of work off farm:							
None.....	74	90	82	80	75	67	71
1 to 99 days.....	21	10	14	18	21	23	29
100 to 199 days.....	2		2	1	2	4	
200 days or more.....	3		2	1	2	6	
Not reporting.....							
Total.....	100	100	100	100	100	100	100
Flue-cured tobacco (subregion 25)							
Days of work off farm:							
None.....	77	67	73	82	79	73	82
1 to 99 days.....	15	17	16	13	15	15	18
100 to 199 days.....	3		1	2	2	4	
200 days or more.....	5			3	4	8	
Not reporting.....		16	10				
Total.....	100	100	100	100	100	100	100
Burley tobacco (subregion 45)							
Days of work off farm:							
None.....	66	53	72	68	68	60	70
1 to 99 days.....	25	37	23	27	25	22	30
100 to 199 days.....	4	5	4	3	3	8	
200 days or more.....	5	5	1	2	4	10	
Not reporting.....	(Z)			(Z)			
Total.....	100	100	100	100	100	100	100

TABLE 23.—WORK OFF FARM BY FARM OPERATORS OF OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Item	Percent of operators reporting for each economic class of farm						
	All farms	I	II	III	IV	V	VI
Burley tobacco (subregion 32)							
Days of work off farm:							
None.....	68		67	63	67	62	72
1 to 99 days.....	24	100	11	23	19	21	27
100 to 199 days.....	3			2	6	6	
200 days or more.....	4		22	12	7	10	
Not reporting.....	1				1	1	1
Total.....	100	100	100	100	100	100	100
Southern Maryland tobacco (subregion 19)							
Days of work off farm:							
None.....	56	84	75	63	56	43	67
1 to 99 days.....	20	14	9	21	23	14	29
100 to 199 days.....	7		2	3	7	12	
200 days or more.....	15	2	14	9	10	30	
Not reporting.....	2			4	4	1	4
Total.....	100	100	100	100	100	100	100
Dark-fired and air-cured tobacco (subregion 53)							
Days of work off farm:							
None.....	71	81	64	77	72	67	77
1 to 99 days.....	21	19	26	18	21	21	23
100 to 199 days.....	4		5		4	5	
200 days or more.....	4		5	5	3	6	
Not reporting.....	(Z)					1	
Total.....	100	100	100	100	100	100	100

Z 0.5 percent or less.

TABLE 24.—SPECIFIED FACILITIES AND EQUIPMENT FOR FARM AND HOME ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Average number per farm:							
Automobiles.....	0.7	1.8	1.2	0.9	0.7	0.6	0.5
Motortrucks.....	0.3	1.2	0.6	0.3	0.2	0.2	0.2
Tractors.....	0.5	1.5	1.2	0.7	0.5	0.3	0.2
Grain combines.....	(Z)	0.1	0.1	(Z)	(Z)	(Z)	(Z)
Percent of farms reporting:							
Automobiles.....	68	90	84	78	69	60	48
Motortrucks.....	25	79	54	32	23	20	18
Tractors.....	44	77	76	60	44	30	23
Grain combines.....	3	10	12	4	2	1	1
Telephone.....	8	25	22	10	7	8	8
Electricity.....	96	90	98	98	97	93	84
Television.....	22	44	52	32	20	13	12
Piped running water.....	37	69	69	47	36	29	23
Home freezer.....	25	46	49	34	23	18	13
Flue-cured tobacco (subregion 25)							
Average number per farm:							
Automobiles.....	0.7	2.5	1.4	1.1	0.8	0.6	0.4
Motortrucks.....	0.3	0.5	1.0	0.6	0.4	0.3	0.2
Tractors.....	0.4	1.0	1.6	0.9	0.6	0.4	0.2
Grain combines.....	(Z)	0.3	0.3	0.2	0.1	(Z)	(Z)
Percent of farms reporting:							
Automobiles.....	60	83	75	76	66	59	41
Motortrucks.....	31	33	73	56	36	28	19
Tractors.....	40	50	85	71	51	35	22
Grain combines.....	4	33	29	16	6	2	1
Telephone.....	11	17	53	23	12	11	6
Electricity.....	93	100	97	98	96	92	84
Television.....	23	33	47	40	27	22	15
Piped running water.....	34	50	75	61	40	31	20
Home freezer.....	13	33	47	37	16	11	7
Burley tobacco (subregion 45)							
Average number per farm:							
Automobiles.....	0.9	3.2	1.4	0.1	0.9	0.7	0.5
Motortrucks.....	0.4	2.6	1.0	0.6	0.4	0.3	0.1
Tractors.....	0.6	2.9	1.5	0.9	0.5	0.3	0.1
Grain combines.....	(Z)	0.2	0.2	0.1	(Z)	(Z)	(Z)

TABLE 24.—SPECIFIED FACILITIES AND EQUIPMENT FOR FARM AND HOME ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Burley tobacco (subregion 45)—Continued							
Percent of farms reporting:							
Automobiles	75	99	90	85	79	69	50
Motortrucks	34	84	77	50	33	26	13
Tractors	46	95	90	73	49	28	12
Grain combines	2	22	17	5	1	—	(Z)
Telephone	38	85	75	52	37	31	21
Electricity	94	100	98	98	97	91	83
Television	37	76	62	49	37	31	19
Piped running water	28	72	61	42	25	21	19
Home freezer	18	69	37	27	18	14	8
Burley tobacco (subregion 32)							
Average number per farm:							
Automobiles	0.4	9.0	1.1	1.0	0.7	0.5	0.3
Motortrucks	0.3	3.0	0.8	0.6	0.5	0.4	0.2
Tractors	0.3	5.0	1.2	1.0	0.6	0.3	0.1
Grain combines	(Z)	2.0	0.2	0.1	0.1	(Z)	(Z)
Percent of farms reporting:							
Automobiles	40	100	78	77	60	47	31
Motortrucks	31	100	44	46	46	36	23
Tractors	24	100	67	69	47	32	14
Grain combines	2	100	11	6	7	1	—
Telephone	12	100	33	28	15	14	9
Electricity	89	100	100	98	96	93	85
Television	12	—	33	26	14	15	9
Piped running water	31	100	67	67	41	37	24
Home freezer	11	100	67	43	20	13	8
Southern Maryland tobacco (subregion 19)							
Average number per farm:							
Automobiles	1.1	2.4	2.1	1.4	1.0	0.9	0.4
Motortrucks	0.5	0.9	1.1	0.6	0.4	0.3	0.1
Tractors	1.1	2.3	2.5	1.6	0.9	0.8	0.4
Grain combines	0.1	0.4	0.3	0.2	0.9	0.1	—
Percent of farms reporting:							
Automobiles	80	86	89	92	80	77	38
Motortrucks	39	59	75	54	34	30	11
Tractors	74	86	95	93	72	68	31
Grain combines	10	43	25	17	9	4	—
Telephone	52	86	80	68	48	43	25
Electricity	83	100	97	88	85	77	59
Television	62	86	83	68	62	57	33
Piped running water	53	97	78	66	53	44	17
Home freezer	34	86	63	51	29	25	10
Dark-fired and air-cured tobacco (subregion 53)							
Average number per farm:							
Automobiles	0.6	2.2	2.0	1.0	0.8	0.6	0.5
Motortrucks	0.3	1.2	1.2	0.6	0.4	0.3	0.2
Tractors	0.5	1.9	2.5	1.0	0.7	0.5	0.3
Grain combines	0.1	0.6	0.9	0.2	0.1	(Z)	(Z)
Percent of farms reporting:							
Automobiles	58	100	95	74	67	56	47
Motortrucks	29	62	85	56	35	28	17
Tractors	46	81	95	73	60	45	25
Grain combines	6	62	79	23	8	4	1
Telephone	22	62	59	50	26	21	16
Electricity	91	100	100	98	96	90	85
Television	21	38	74	44	28	18	10
Piped running water	23	62	69	44	27	21	15
Home freezer	12	19	54	26	16	10	8

Z Less than half of smallest unit shown (0.05 or 0.5 percent).

Farms in Classes I, II, and III were much more highly mechanized than the farms in Classes IV, V, and VI. However, a sizable percentage of the farms of higher income did not have tractors or motortrucks.

In the case of home conveniences, electricity was the only item reported on the majority of tobacco farms. It was reported as available on 80 percent or more of all the farms in each economic class in each subregion, with the exception of Southern Maryland. For home conveniences as a whole, however, Southern Maryland had the highest level of living of any subregion; a larger percentage had telephones, television sets, running water, and home freezers. As measured by home conveniences, the level of living was low on the majority of farms in other subregions. In most areas less than 20 percent of the farms had telephones, television sets, or home freezers, and less than one-third had running water.

In all subregions the proportion of farms with various home conveniences increased as the amount of gross sales increased. In the flue-cured tobacco subregions, even in the high-income group, less than one-fourth of the farms reported telephones, less than one-half television sets, and only about two-thirds reported running water.

**Capital investment.**—The capital investment for tobacco farms is low in comparison to many types of commercial agriculture. The Southern Maryland region, with an average investment of \$23,717 per farm, was the highest for any of the tobacco areas (see Table 25). The area with the second highest investment was Burley subregion 45. Capital investments averaged only \$8,806 per farm in the flue-cured subregion 25. This was the lowest investment of any of the areas.

In each of the tobacco areas, except the dark-fired and air-cured, land and buildings amounted to three-fourths or more of the total

TABLE 25.—CAPITAL INVESTMENT ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Investment per farm (dollars):							
Land and buildings	9,893	32,071	27,563	15,555	9,255	5,606	3,894
Livestock	364	1,511	949	519	336	243	202
Machinery	1,851	6,074	4,055	2,396	1,819	1,328	997
Total	12,108	39,656	32,537	18,470	11,410	7,177	5,093
Flue-cured tobacco (subregion 25)							
Investment per farm (dollars):							
Land and buildings	6,681	8,600	28,474	14,910	8,344	5,517	3,614
Livestock	395	1,746	2,015	988	486	310	210
Machinery	1,730	5,798	5,556	3,296	2,139	1,499	917
Total	8,806	16,144	36,045	19,194	10,969	7,326	4,741
Burley tobacco (subregion 45)							
Investment per farm (dollars):							
Land and buildings	11,864	112,802	46,046	19,489	10,554	6,382	3,913
Livestock	964	10,073	3,253	1,594	842	511	294
Machinery	2,598	13,916	6,291	3,717	2,565	1,790	989
Total	15,426	136,791	55,590	24,800	13,961	8,683	5,196
Burley tobacco (subregion 32)							
Investment per farm (dollars):							
Land and buildings	11,924	500,000	16,722	23,187	7,804	20,125	7,534
Livestock	578	16,407	2,409	2,209	1,131	686	359
Machinery	1,362	30,697	5,130	3,794	2,569	1,647	877
Total	13,864	547,104	24,261	29,190	11,504	22,458	8,770
Southern Maryland tobacco (subregion 19)							
Investment per farm (dollars):							
Land and buildings	19,479	53,314	47,489	26,961	15,737	12,894	10,511
Livestock	769	2,187	1,917	1,262	533	273	177
Machinery	3,529	8,326	7,794	4,821	3,021	2,539	1,011
Total	23,717	63,827	57,200	33,044	19,291	15,706	11,699
Dark-fired and air-cured tobacco (subregion 53)							
Investment per farm (dollars):							
Land and buildings	6,372	23,500	45,613	16,436	7,641	5,330	3,429
Livestock	715	3,209	5,603	1,821	899	569	348
Machinery	2,193	9,510	10,923	4,188	2,798	1,929	1,206
Total	9,280	36,309	61,839	22,445	11,338	7,828	4,983

investment. In the dark-fired and air-cured area, 24 percent of the investment was in machinery, and 8 percent in livestock. These proportions were higher than for any of the other areas. In flue-cured subregion 24 only 3 percent of the total investment was in livestock.

In all of the tobacco areas, the average capital investment increased as gross farm sales increased. The average investment on Class II farms was 5 to 10 times the investment on Class VI farms. The average investment for farms in the same income group varied widely by types of tobacco.

**Production expense.**—Table 26 shows some of the major cost items in operating specialized tobacco farms. In each case fertilizer was the largest or almost the largest item of expense, for tobacco is heavily fertilized. In the flue-cured tobacco subregions, the amount expended for gasoline, fuel, and oil is high, as oil burners are used for curing tobacco on many of the farms. The expenditure for hired labor was much greater on farms in the flue-cured subregion 24 and in Southern Maryland than in the other subregions.

There was a considerable variation in average expenditure per crop acre between subregions for the same types of tobacco and for different types of tobacco. The subregion with the highest expenditure per acre was flue-cured 24 with an average of about \$41. This compared with only \$19 per acre for flue-cured in subregion 25. Subregion 53 had the lowest expenditure per acre; here the average was only \$8.

TABLE 26.—SPECIFIED FARM EXPENDITURES ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item of expense	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Amount per farm (dollars):							
Machiae hire	57	283	145	84	54	32	22
Hired labor	412	4,227	1,773	673	347	196	113
Feed for livestock and poultry	101	641	360	147	90	62	44
Gasoline and other petroleum fuel and oil	224	1,347	733	347	203	122	75
Commercial fertilizer	407	2,352	1,127	604	380	246	139
Lime	2	64	10	3	2	1	1
Total	1,203	8,914	4,148	1,858	1,076	659	394
Amount per crop acre (dollars):							
Machiae hire	2.10	1.45	1.98	2.14	2.17	1.91	2.01
Hired labor	15.31	21.67	24.14	17.05	13.96	11.70	10.38
Gasoline and other petroleum fuel and oil	8.33	6.90	9.99	8.79	8.17	7.27	6.87
Fertilizer and lime	15.22	12.39	15.48	15.39	15.36	14.72	12.78
Total	40.96	42.41	51.59	43.37	39.66	35.60	32.04
Flue-cured tobacco (subregion 25)							
Amount per farm (dollars):							
Machiae hire	44	115	216	106	55	36	18
Hired labor	116	858	1,226	354	143	86	38
Feed for livestock and poultry	78	42	694	194	92	62	42
Gasoline and other petroleum fuel and oil	112	375	635	294	151	85	38
Commercial fertilizer	241	1,083	998	531	308	197	109
Lime	3	66	36	10	4	2	1
Total	594	2,539	3,805	1,480	753	468	246
Amount per crop acre (dollars):							
Machiae hire	1.62	0.90	1.89	1.82	1.63	1.64	1.22
Hired labor	4.33	6.69	10.77	6.08	4.26	3.97	2.58
Gasoline and other petroleum fuel and oil	4.18	2.92	5.57	5.05	4.47	3.92	2.55
Fertilizer and lime	9.09	8.96	9.08	9.30	9.29	9.19	7.40
Total	19.22	19.47	27.31	22.25	19.65	18.72	13.75

TABLE 26.—SPECIFIED FARM EXPENDITURES ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Item of expense	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Burley tobacco (subregion 45)							
Amount per farm (dollars):							
Machiae hire	64	335	179	111	62	33	16
Hired labor	260	5,803	1,458	453	185	82	32
Feed for livestock and poultry	176	1,744	593	296	149	95	66
Gasoline and other petroleum fuel and oil	109	1,004	430	198	95	43	16
Commercial fertilizer	196	1,769	626	319	176	113	54
Lime	9	128	49	15	7	3	1
Total	814	10,783	3,335	1,392	674	369	185
Amount per crop acre (dollars):							
Machiae hire	1.23	0.71	1.24	1.35	1.27	1.07	0.87
Hired labor	4.95	12.36	10.14	5.53	3.75	2.63	1.71
Gasoline and other petroleum fuel and oil	2.07	2.14	2.99	2.42	1.94	1.38	.87
Fertilizer and lime	3.91	4.04	4.69	4.08	3.73	3.73	2.88
Total	12.16	19.25	19.06	13.38	10.69	8.81	6.33
Burley tobacco (subregion 32)							
Amount per farm (dollars):							
Machiae hire	31	150	62	141	54	38	19
Hired labor	46	10,000	1,179	352	96	49	21
Feed for livestock and poultry	87	1,445	481	309	145	102	60
Gasoline and other petroleum fuel and oil	44	900	344	287	99	53	21
Commercial fertilizer	112	2,250	512	421	222	135	67
Lime	2	.....	.....	13	5	3	2
Total	322	14,745	2,578	1,523	621	380	190
Amount per crop acre (dollars):							
Machiae hire	1.08	0.69	0.71	1.43	1.02	1.19	0.95
Hired labor	1.63	46.30	13.38	3.57	1.84	1.54	1.03
Gasoline and other petroleum fuel and oil	1.54	4.17	3.91	2.92	1.90	1.66	1.05
Fertilizer and lime	3.99	10.42	3.29	5.81	4.40	4.26	3.44
Total	8.24	61.58	21.29	13.73	9.16	8.65	6.47
Southern Maryland tobacco (subregion 19)							
Amount per farm (dollars):							
Machiae hire	53	266	151	75	50	17	17
Hired labor	565	3,443	2,500	840	356	159	62
Feed for livestock and poultry	145	215	310	288	101	67	56
Gasoline and other petroleum fuel and oil	199	901	483	309	154	115	36
Commercial fertilizer	367	2,246	1,122	499	287	187	77
Lime	24	55	51	45	18	10	8
Total	1,353	7,126	4,617	2,056	966	555	256
Amount per crop acre (dollars):							
Machiae hire	1.04	1.37	1.24	0.95	1.21	0.64	0.80
Hired labor	11.02	17.73	20.50	10.59	8.63	5.95	2.86
Gasoline and other petroleum fuel and oil	3.88	4.64	3.96	3.90	3.73	4.3	1.66
Fertilizer and lime	7.62	11.85	9.62	6.85	7.39	7.33	3.93
Total	23.56	35.59	35.32	22.29	20.96	18.23	9.25
Dark-fired and air-cured tobacco (subregion 53)							
Amount per farm (dollars):							
Machiae hire	47	86	255	116	58	35	35
Hired labor	87	947	1,936	285	104	53	22
Feed for livestock and poultry	115	737	652	233	148	95	66
Gasoline and other petroleum fuel and oil	98	1,067	1,082	281	136	69	27
Commercial fertilizer	195	721	1,194	545	278	149	69
Lime	13	143	114	27	15	11	9
Total	555	3,701	5,233	1,487	739	412	228
Amount per crop acre (dollars):							
Machiae hire	0.85	0.40	0.86	0.96	0.83	0.73	1.13
Hired labor	1.56	4.39	6.52	2.35	1.50	1.12	.71
Gasoline and other petroleum fuel and oil	1.76	4.95	3.65	2.31	1.96	1.45	.89
Fertilizer and lime	3.75	4.00	4.40	4.71	4.22	3.38	2.48
Total	7.92	13.74	15.43	10.33	8.51	6.68	5.21



Expenditures per crop-acre declined in all subregions with a decrease in size of business as measured by gross sales. The biggest decrease was usually in hired labor. Some of the larger farms used hired labor rather than croppers. Some items of expense, like machine hire, increased on a per crop-acre basis as size of operations decreased, for these operators custom-hired some work when they did not own suitable equipment.

Practically all specialized tobacco farmers use fertilizer. The average rate of application per acre on tobacco, in 1954, was higher for Burley than for flue-cured producers (see Table 27). Farmers in the dark-fired and air-cured subregion used an average of 1,100 pounds per acre on tobacco. This was the lowest application for any of the areas for which data are available.

TABLE 27.—USE OF COMMERCIAL FERTILIZER ON OTHER FIELD CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Percent of all farms using fertilizer.....	99	100	99	99	99	99	97
Acres per farm on which fertilizer was used.....	23	160	62	33	21	13	8
Pounds used per acre fertilized.....	706	572	700	700	700	720	780
Percent of farms growing tobacco, fertilizing tobacco.....	98	100	97	99	99	98	93
Acres of tobacco fertilized per farm.....	6	28	14	8	5	4	3
Pounds used per acre of tobacco.....	1,329	1,139	1,420	1,360	1,306	1,317	1,234
Flue-cured tobacco (subregion 25)							
Percent of all farms using fertilizer.....	98	100	100	97	98	97	97
Acres per farm on which fertilizer was used.....	15	76	65	34	19	12	7
Pounds used per acre fertilized.....	664	810	642	666	659	670	658
Percent of farms growing tobacco, fertilizing tobacco.....	97	100	97	96	98	97	96
Acres of tobacco fertilized per farm.....	5	34	17	10	6	4	2
Pounds used per acre of tobacco.....	1,193	1,212	1,177	1,242	1,189	1,185	1,198
Burley tobacco (subregion 45)							
Percent of all farms using fertilizer.....	92	99	96	96	92	93	80
Acres per farm on which fertilizer was used.....	9	104	28	14	8	4	3
Pounds used per acre fertilized.....	923	663	850	893	960	1,050	917
Percent of farms growing tobacco, fertilizing tobacco.....	92	99	97	97	92	93	79
Acres of tobacco fertilized per farm.....	4	26	11	6	4	2	1
Pounds used per acre of tobacco.....	1,551	1,579	1,540	1,550	1,526	1,626	1,471
Burley tobacco (subregion 32)							
Percent of all farms using fertilizer.....	90	100	100	92	92	90	89
Acres per farm on which fertilizer was used.....	11	242	34	35	19	12	6
Pounds used per acre fertilized.....	480	372	668	506	499	472	469
Percent of farms growing tobacco, fertilizing tobacco.....	84	100	100	92	93	90	77
Acres of tobacco fertilized per farm.....	1	19	10	3	2	1	1
Pounds used per acre of tobacco.....	1,493	758	1,324	1,525	1,628	1,506	1,428
Southern Maryland tobacco <sup>1</sup> (subregion 19)							
Percent of all farms using fertilizer.....	95	97	97	96	95	98	83
Acres per farm on which fertilizer was used.....	23	112	67	33	18	12	5
Pounds used per acre fertilized.....	640	798	661	606	644	636	675
Dark-fired and air-cured tobacco (subregion 53)							
Percent of all farms using fertilizer.....	91	100	94	100	92	91	87
Acres per farm on which fertilizer was used.....	24	81	125	52	32	20	10
Pounds used per acre fertilized.....	360	410	422	395	382	349	337
Percent of farms growing tobacco, fertilizing tobacco.....	88	100	95	97	91	89	82
Acres of tobacco fertilized per farm.....	3	10	11	6	4	3	1
Pounds used per acre of tobacco.....	1,642	1,063	1,266	1,152	1,086	968	980

<sup>1</sup> Data not available for use of fertilizer on tobacco.

The percentage of the farms using fertilizer, the percentage of farms with tobacco reporting tobacco fertilized, and the average amount of fertilizer applied per acre for all crops and for tobacco were approximately the same for each economic class of farm in all areas.

#### INCOME AND EFFICIENCY LEVELS

**Sources of farm income.**—Gross farm income is important in determining income levels on tobacco farms. A high net income requires a relatively high gross income. Gross sales average \$4,530 on farms in flue-cured subregion 21. This was the highest of any of the subregions. In each of the tobacco subregions, tobacco contributed 65 percent or more of the gross income (see Table 28).

On flue-cured tobacco farms some income was received from cotton and peanuts in subregion 24 but average receipts from these enterprises were small in subregion 25. Receipts from livestock or livestock products were not very important on farms in either of the flue-cured areas although the amount of these receipts increased with gross income. On the average the percent that receipts from tobacco was of gross sales decreased slightly as gross income increased but the relationship was not consistent. Gross sales per crop acre increased as amount of gross income increased.

Receipts from livestock made up a larger proportion of gross income on Burley than on flue-cured tobacco farms. But the proportion of gross receipts from livestock was not large on these farms. As in the case of flue-cured tobacco farms, the proportion of gross receipts from tobacco in the Burley area declined as the amount of gross income increased. Average gross receipts per crop-acre were about 50 percent higher in Burley subregion 45 than in subregion 32.

On Southern Maryland tobacco farms, receipts from tobacco contributed on the average 82 percent of the gross receipts. On the larger farms, income from livestock, especially beef cattle, was important. On the Class I farms, gross sales per crop-acre averaged \$136 per farm compared to only \$36 on the Class VI farms.

Total gross sales on the dark-fired and air-cured tobacco farms averaged only \$2,499 per farm; of this amount tobacco contributed 71 percent. There was no consistent relationship between the amount of gross income and the percent that income from tobacco was of gross sales.

**Gross income minus specified expenses.**—Gross sales minus specified expenses should not be confused with net income. The specified expenditures do not include any fixed costs nor all operating costs. Net income would be much less than the amount indicated by gross sales minus specified expenditures.

On flue-cured tobacco farms, the amount that gross sales exceeded specified expenses averaged \$3,327 for subregion 24 and \$2,306 for subregion 25 (Table 29). In the Burley area, similar figures were \$2,926 for subregion 45 and \$1,011 for subregion 32. Farmers growing dark tobacco had on the average a net of \$1,940 above specified expenses and producers of Southern Maryland tobacco, a net of \$2,665. Obviously, the net above specified expenses increased as amount of gross farm income increased. For the different types of tobacco, there was a considerable variation in the average net income for farms in similar economic classes. Income above expenses was generally lower, for example, on Class IV tobacco farms in the Burley and Southern Maryland areas than in other areas.

**Efficiency levels of farm operation.**—Census data do not provide all of the information needed to make a complete analysis of the differences in efficiency of farm operations in different tobacco areas. However, the data do afford some comparisons that indicate levels even though the specific figures may not always reflect the precise relationship.

TABLE 28.—SOURCE OF FARM INCOME ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Source of income	Total	Economic class of farm					
		I	II	III	IV	V	VI
Flue-cured tobacco (subregion 24)							
Sales per farm (dollars):							
Peanuts.....	70	1,150	396	154	47	9	11
Cotton.....	389	1,830	1,007	613	378	198	65
Tobacco.....	3,725	23,945	11,115	6,010	3,415	1,915	844
Other field crops.....	186	2,932	964	352	149	44	23
Vegetables.....	24	344	100	33	22	15	7
Fruits and nuts.....	2	53	6	3	2	2	1
Horticultural specialties.....	(Z)		(Z)	(Z)			
Total crops.....	4,396	30,254	13,588	7,165	4,013	2,183	951
Dairy products.....	4	1,001	52	5	1	1	1
Poultry and poultry products.....	14	12	65	22	13	6	4
Cattle and calves.....	13	167	83	22	9	6	3
Hogs.....	93	360	389	181	76	26	12
Other livestock and livestock products.....	1		2	1	1	1	(Z)
Total livestock.....	125	1,540	591	231	100	40	20
Forest products sold.....	9	104	78	14	6	2	2
Gross sales per farm.....	4,530	31,898	14,257	7,410	4,119	2,225	973
Percent of gross sales from tobacco.....	82	75	78	81	83	86	87
Gross sales per acre of cropland dollars.....	168	164	194	188	166	133	89
Flue-cured tobacco (subregion 25)							
Sales per farm (dollars):							(Z)
Peanuts.....	1				1	1	
Cotton.....	18		127	42	23	14	10
Tobacco.....	2,682	25,774	10,562	6,390	3,671	2,054	934
Other field crops.....	78	1,193	842	318	111	41	12
Vegetables.....	3		6	5	4	3	1
Fruits and nuts.....	6		38	20	7	4	3
Horticultural specialties.....	(Z)				(Z)		
Total crops.....	2,788	26,967	11,575	6,775	3,817	2,118	960
Dairy products.....	21		582	115	28	8	3
Poultry and poultry products.....	18	4	215	63	25	11	5
Cattle and calves.....	39	730	503	171	50	22	9
Hogs.....	16	250	130	72	22	8	3
Other livestock and livestock products.....	2	100	1	3	2	2	1
Total livestock.....	96	1,084	1,431	424	127	51	21
Forest products sold.....	16	124	63	70	23	8	4
Gross sales per farm.....	2,900	28,175	13,069	7,269	3,967	2,177	985
Percent of gross sales from tobacco.....	92	92	81	88	92	94	95
Gross sales per acre of cropland dollars.....	108	220	115	125	118	101	66
Burley tobacco (subregion 32)							
Sales per farm (dollars):							
Cotton.....	2				2		2
Tobacco.....	975	15,288	10,641	3,914	2,068	1,133	571
Other field crops.....	73		15	405	238	95	26
Vegetables.....	13			78	23	17	6
Fruits and nuts.....	4			4	7	5	3
Horticultural specialties.....							
Total crops.....	1,067	15,288	10,656	4,401	2,336	1,252	608
Dairy products.....	87	2,200	1,296	739	277	106	22
Poultry and poultry products.....	28	80	22	103	55	35	17
Cattle and calves.....	122	11,000	712	642	298	156	51
Hogs.....	16		54	79	33	23	7
Other livestock and livestock products.....	6	755	11	35	11	7	3
Total livestock.....	250	14,035	2,095	1,598	674	327	100
Forest products sold.....	7			41	10	4	5
Gross sales per farm.....	1,333	29,323	12,751	6,040	3,020	1,583	713
Percent of gross sales from tobacco.....	73	52	84	65	68	72	80
Gross sales per acre of cropland dollars.....	47	136	145	61	58	49	36

TABLE 28.—SOURCE OF FARM INCOME ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Source of income	Total	Economic class of farm					
		I	II	III	IV	V	VI
Burley tobacco (subregion 45)							
Sales per farm (dollars):							
Peanuts.....							
Cotton.....							
Tobacco.....	2,895	19,847	9,220	4,843	2,736	1,474	685
Other field crops.....	107	1,321	351	215	93	36	13
Vegetables.....	2	55	22	1	2	1	(Z)
Fruits and nuts.....	3	3	4	3	2	4	1
Horticultural specialties.....	1		17				(Z)
Total crops.....	3,008	21,226	9,614	5,062	2,833	1,515	699
Dairy products.....	236	687	750	434	238	93	31
Poultry and poultry products.....	25	39	40	39	26	17	10
Cattle and calves.....	280	5,279	1,252	474	227	114	42
Hogs.....	88	1,209	406	174	66	27	13
Other livestock and livestock products.....	100	1,944	599	192	69	21	6
Total livestock.....	729	9,158	3,047	1,313	626	272	102
Forest products sold.....	3		4	2	3	2	2
Gross sales per farm.....	3,740	30,384	12,665	6,377	3,462	1,789	803
Percent of gross sales from tobacco.....	77	65	73	76	79	82	85
Gross sales per acre of cropland dollars.....	71	65	88	78	70	58	42
Southern Maryland tobacco (subregion 19)							
Sales per farm (dollars):							
Tobacco.....	3,292	17,058	9,159	4,852	2,738	1,486	732
Other field crops.....	320	4,828	902	500	234	79	20
Vegetables.....	20	676	86	9	15	3	
Fruits and nuts.....	3	4	3	1	5	1	
Horticultural specialties.....	37				103		
Total crops.....	3,672	22,566	10,150	5,362	3,095	1,569	752
Dairy products.....	20	147	119	25	11	2	
Poultry and poultry products.....	64	47	133	140	49	20	6
Cattle and calves.....	187	3,315	962	288	65	20	10
Hogs.....	55	250	229	89	42	9	2
Other livestock and livestock products.....	7	1	1	24	3	1	1
Total livestock.....	333	3,760	1,444	566	170	52	19
Forest products sold.....	13		10	39	9	1	1
Gross sales per farm.....	4,018	26,326	11,604	5,967	3,274	1,622	771
Percent of gross sales from tobacco.....	82	65	79	81	84	92	95
Gross sales per acre of cropland dollars.....	78	136	95	75	79	61	36
Dark-fired and air-cured tobacco (subregion 53)							
Sales per farm (dollars):						(Z)	
Cotton.....	1				2		1
Tobacco.....	1,776	25,114	7,004	4,324	2,485	1,416	690
Other field crops.....	289	2,408	1,819	882	441	203	73
Vegetables.....	2			2	2	2	2
Fruits and nuts.....	12	10	13	13	12	12	14
Horticultural specialties.....							
Total crops.....	2,080	27,532	8,836	5,221	2,942	1,633	780
Dairy products.....	145	880	820	447	225	103	38
Poultry and poultry products.....	24	30	75	49	27	22	17
Cattle and calves.....	133	2,286	998	460	196	82	35
Hogs.....	107	2,123	1,172	376	146	69	20
Other livestock and livestock products.....	7		248	22	8	4	2
Total livestock.....	416	5,319	3,313	1,354	602	280	112
Forest products sold.....	3			4	2	3	1
Gross sales per farm.....	2,499	32,851	12,149	6,579	3,546	1,916	893
Percent of gross sales from tobacco.....	71	76	87	65	70	73	77
Gross sales per acre of cropland dollars.....	45	152	41	54	51	40	29

Z \$0.50 or less.

TABLE 29.—GROSS INCOME OF OPERATOR AND FAMILY ABOVE SPECIFIED EXPENSES ON OTHER FIELD-CROP FARMS IN SELECTED TOBACCO SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
<b>Flue-cured tobacco (subregion 24)</b>							
Average per farm (dollars):							
Gross sales	4,530	31,898	14,257	7,410	4,119	2,225	973
Specified expenses	1,203	8,914	4,148	1,858	1,076	659	394
Gross sales minus specified expenses	3,327	22,984	10,109	5,552	3,043	1,566	579
<b>Flue-cured tobacco (subregion 25)</b>							
Average per farm (dollars):							
Gross sales	2,900	28,175	13,069	7,269	3,967	2,177	985
Specified expenses	594	2,539	3,805	1,489	753	468	246
Gross sales minus specified expenses	2,306	25,636	9,264	5,780	3,214	1,709	739
<b>Burley tobacco (subregion 45)</b>							
Average per farm (dollars):							
Gross sales	3,710	30,384	12,665	6,377	3,462	1,789	803
Specified expenses	814	10,783	3,335	1,392	674	369	185
Gross sales minus specified expenses	2,926	19,601	9,330	4,985	2,788	1,420	618
<b>Burley tobacco (subregion 32)</b>							
Average per farm (dollars):							
Gross sales	1,333	29,323	12,751	6,049	3,029	1,583	713
Specified expenses	322	14,745	2,578	1,523	621	380	190
Gross sales minus specified expenses	1,011	14,578	10,173	4,517	2,399	1,203	523
<b>Southern Maryland tobacco (subregion 19)</b>							
Average per farm (dollars):							
Gross sales	4,018	26,326	11,604	5,967	3,274	1,622	771
Specified expenses	1,353	7,126	4,617	2,056	996	555	256
Gross sales minus specified expenses	2,665	19,200	6,987	3,911	2,308	1,067	515
<b>Dark-fired and air-cured tobacco (subregion 53)</b>							
Average per farm (dollars):							
Gross sales	2,499	32,851	12,149	6,579	3,546	1,916	893
Specified expenses	555	3,761	5,233	1,487	739	412	228
Gross sales minus specified expenses	1,944	29,150	6,916	5,092	2,807	1,504	665

There were considerable variations in the various measures of efficiency both between subregions for the same type of tobacco and also among the different tobacco types (see Table 30). For flue-cured tobacco, both gross sales and net sales per man-equivalent were higher in subregion 24 than in subregion 25. In the Burley region, gross and net sales per man-equivalent in subregion 32 was only about 40 percent as much as in subregion 45. Both gross and net sales per man-equivalent was much lower in subregion 32 than in either of the other subregions.

Sales per \$1,000 invested were highest in the flue-cured regions. They averaged \$445 in subregion 24. They were lowest in subregion 32 of the Burley region, averaging only \$196 per \$1,000 investment. The total investment per man-equivalent was lowest in the two flue-cured subregions and highest in the Southern Maryland subregion. However, for subregion 24 the investment per crop-acre was the highest for any subregion and was higher for subregion 25 than any except the Southern Maryland subregion. The investment per crop-acre averaged \$132 in the dark-fired and air-cured subregion 53. However, in each of the other subregions the investment per crop acre was \$234 or more.

Crop acres per man-equivalent averaged only about 17 acres in each of the two flue-cured subregions. In the dark-fired and air-cured subregion, there was an average of 52 crop acres per man-equivalent.

TABLE 30.—SELECTED MEASURES OF EFFICIENCY ON OTHER FIELD-CROP FARMS IN SELECTED SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
<b>Flue-cured tobacco (subregion 24)</b>							
Gross sales per man-equivalent dollars	2,618	6,457	4,497	3,415	2,466	1,601	811
Net sales per man-equivalent dollars	1,923	4,653	3,189	2,558	1,822	1,127	483
Gross sales per \$1,000 invested dollars	445	1,049	613	493	423	355	230
Investment per \$100 of gross sales dollars	225	95	163	203	236	281	436
Total investment per man-equivalent dollars	5,887	6,161	7,343	6,937	5,825	4,509	3,537
Investment per crop acre dollars	379	156	317	381	391	374	388
Crop acres per man-equivalent	16	40	23	18	15	12	9
Tobacco per acre pounds	1,233	1,205	1,477	1,377	1,211	967	683
<b>Flue-cured tobacco (subregion 25)</b>							
Gross sales per man-equivalent dollars	1,986	16,574	5,490	3,581	2,390	1,625	844
Net sales per man-equivalent dollars	1,616	14,899	3,828	2,846	1,936	1,277	632
Gross sales per \$1,000 investment dollars	393	2,381	478	487	428	353	250
Investment per \$100 of gross sales dollars	2,542	420	2,093	2,054	2,334	2,832	4,002
Total investment per man-equivalent dollars	1,987	16,574	5,402	3,582	2,391	1,621	840
Investment per crop acre dollars	275	92	240	256	275	285	266
Crop acres per man-equivalent	18	75	47	29	20	16	13
Tobacco per acre pounds	1,044	1,411	1,142	1,237	1,109	971	760
<b>Burley tobacco (subregion 45)</b>							
Gross sales per man-equivalent dollars	3,117	6,506	6,031	4,398	2,885	1,844	873
Net sales per man-equivalent dollars	2,438	4,197	4,443	3,438	2,323	1,465	671
Gross sales per \$1,000 invested dollars	303	355	314	328	311	252	188
Investment per \$100 of gross sales dollars	329	281	319	305	321	397	533
Total investment per man-equivalent dollars	10,213	18,334	19,235	13,418	9,253	7,290	4,660
Investment per crop acre dollars	234	182	281	237	226	229	226
Crop acres per man-equivalent	44	101	69	57	41	32	21
Tobacco per acre pounds	1,550	1,540	1,695	1,637	1,531	1,388	1,217
<b>Burley tobacco (subregion 32)</b>							
Gross sales per man-equivalent dollars	1,271	3,858	7,650	4,241	2,411	1,491	718
Net sales per man-equivalent dollars	962	1,918	6,091	3,189	1,918	1,135	538
Gross sales per \$1,000 invested dollars	196	54	526	241	263	204	154
Investment per \$100 of gross sales dollars	511	1,866	190	415	351	490	651
Total investment per man-equivalent dollars	6,487	71,987	14,556	17,583	9,186	7,306	4,672
Investment per crop acre dollars	238	2,633	275	254	219	241	231
Crop acres per man-equivalent	27	28	53	69	42	30	20
Tobacco per acre pounds	1,628	1,642	2,241	2,094	1,762	1,646	1,462
<b>Southern Maryland tobacco (subregion 19)</b>							
Gross sales per man-equivalent dollars	3,134	8,775	4,477	3,678	2,685	1,978	937
Net sales per man-equivalent dollars	2,082	6,400	2,698	2,415	1,892	1,301	629
Gross sales per \$1,000 invested dollars	223	646	252	405	229	127	88
Investment per \$100 of gross sales dollars	449	155	396	398	437	785	1,134
Total investment per man-equivalent dollars	14,058	13,591	17,731	14,640	11,723	15,522	10,618
Investment per crop acre dollars	352	210	377	300	346	475	405
Crop acres per man-equivalent	40	65	47	49	34	33	26
Tobacco per acre pounds	819	886	908	856	793	712	522
<b>Dark-fired and air-cured tobacco (subregion 53)</b>							
Gross sales per man-equivalent dollars	2,358	18,989	4,637	4,733	2,980	1,959	950
Net sales per man-equivalent dollars	1,838	16,849	2,640	3,663	2,358	1,536	707
Gross sales per \$1,000 invested dollars	341	928	285	380	394	313	221
Investment per \$100 of gross sales dollars	293	108	350	263	254	319	453
Total investment per man-equivalent dollars	6,941	20,455	16,253	12,472	7,583	6,235	4,315
Investment per crop acre dollars	132	164	143	143	130	129	130
Crop acres per man-equivalent	52	125	113	87	59	48	33
Tobacco per acre pounds	1,290	1,876	1,442	1,481	1,347	1,203	1,074

The yield per acre of tobacco was highest in the two Burley subregions and lowest in the Southern Maryland subregion. The average yield per acre of 819 pounds in the Southern Maryland subregion was only about half of the average yield of 1,628 pounds reported for Burley subregion 32.

In each of the subregions, as the amount of gross income increased, the gross and net sales per man-equivalent increased. The gross and net sales per man-equivalent on Class II farms were usually 4 to 6 times as much as the amount on Class VI farms.

In each tobacco region the total investment per man-equivalent and the crop acre per man-equivalent increased as the gross farm income increased. This means that on the larger farms more capital was associated with a unit of labor. A unit of labor was also able to handle a larger unit of production. It appears that both capital and labor were used more efficiently on the larger farms. The capital investment per \$100 of gross sales on large farms was less than half that on small farms.

#### SUMMARY AND PROBLEMS

Specialized tobacco farms are small from the standpoint of land area. Most farms average 50 to 100 acres in size with a third to a half of the total land area in cropland. From the standpoint of value of business about 54 percent are in Economic Classes V and VI. These farms have a total value of products sold of less than \$2,500.

In many of the tobacco areas a fourth to a half of the farm operators are tenants. On tobacco farms in the Southern Maryland and flue-cured areas, a fourth or more of the operators are nonwhite. But, very few nonwhite operators are found on tobacco farms in other areas. In areas with nonwhite operators, tenancy is higher among the nonwhite than among the white operators.

In the flue-cured subregions and some of the Burley subregions, a fifth or more of the operators are under 35 years of age. In some of the subregions two-fifths or more of the operators are 55 years of age or over which would indicate the necessity of combining units as the older operators die or stop farming.

Tobacco farms tend to be operated intensively with a high percentage of the cropland in row crops. But the type of crop grown on individual farms tends to be quite different in the different tobacco areas. From the standpoint of acreage, corn for grain is the most important crop in all areas except on farms in Southern Maryland. Small grains are grown on tobacco farms, but they are grown mainly on the larger farms. The production of hay is less important on flue-cured and Southern Maryland tobacco farms than on other types of tobacco farms.

With the exception of 1939, both flue-cured and Burley producers have operated under some type of control program since 1933. In 1955, marketing quotas were in effect for all types of tobacco except Southern Maryland. Increases in yield per acre and also shifts in demand for certain types of tobacco have resulted in supplies greater than the amount needed to supply current demand. This has resulted in smaller acreage allotments for individual farmers. In 1954, about half of the flue-cured tobacco producers grew less than 5 acres of tobacco; more than two-thirds of the Burley farms grew less than 2.5 acres of tobacco. Only about one-fifth of the producers of Southern Maryland tobacco grew less than 5 acres of tobacco; about one-third of the dark-fired and air-cured producers grew less than 2.5 acres of tobacco.

Livestock is not very important on most tobacco farms. On flue-cured farms livestock is kept mainly to supply products for home consumption, but many of the farmers do not keep livestock even for home use. Livestock is more important on Burley and dark-fired and air-cured tobacco farms than on farms in other

tobacco areas. Livestock is used to supplement income on some of the farms, but as a rule, the proportion of total income received from livestock is not very great.

With the exception of the larger farms, the labor force on tobacco farms is planned around the farm family. The majority of the operators spend full time in the farm business. Operators that work off the farm, normally work for only a short period.

The amount of mechanization on tobacco farms is low. Operators have been slow to mechanize, partly because of the small size of the unit and partly because, if a sufficient labor supply is available to harvest tobacco, a surplus of labor is usually available for production operations. The level of living on tobacco farms, as measured by home conveniences is also low. Electricity is the only home convenience item reported for the majority of tobacco farms. In most tobacco areas, less than 20 percent of the farm homes have telephones, television sets, or home freezers, and less than one-third, running water.

Compared to many types of farming, the capital investment for tobacco farms is relatively low. The majority of the investments is in land and buildings.

On tobacco farms fertilizer is the largest or among the largest item of expense, for tobacco is a crop that is heavily fertilized. Within the same subregion, for those farms on which fertilizer was applied, the average rate of application per acre was about the same on farms in each economic class.

Average gross receipts of tobacco farms are low. Gross sales averaged \$4,530 on farms in flue-cured subregion 24, the highest, compared to only \$1,333 in Burley subregion 32, the lowest. In each of the subregions, tobacco contributed 71 percent or more of the gross receipts from specified items. The amount available for miscellaneous farm expenses, returns to capital and payment for operator and family labor averaged \$3,327 for tobacco farms in flue-cured subregion 24 and only \$1,011 for farms in the Burley subregion 32.

A cross-section view of tobacco farms indicates several definite problems. First, the tobacco farmer faces the problem of acquiring control of sufficient resources to produce efficiently. Constant changes in technology and improvements in labor-saving equipment enable each worker to produce more efficiently. The efficient use of machinery requires more and more acres of cropland per worker.

The average size of tobacco farms has not shown much increase since 1940, nor has the capital investment for tobacco farms increased as much as for some other types of agriculture. Nevertheless, there has been a substantial increase in the average capital investment on tobacco farms. This is due in large part to increased prices. Data from Agricultural Research studies<sup>2</sup> for Commercial family-operated flue-cured and Burley tobacco farms serve as an example of the capital investment on tobacco farms and also changes in capital requirements (see Table 31). The average capital investment on flue-cured tobacco farms increased more than three times between 1940 and 1955; the investment on Burley tobacco farms more than doubled during the same period. For both types of tobacco farms the largest relative increase was in machinery and equipment.

In view of low levels of income of farm families in tobacco areas, the increase in capital requirements represents a serious problem to beginning farmers. Even though he starts as a sharecropper, it is difficult to acquire enough capital to operate as a tenant or to pay the downpayment on the purchase of a farm. If the young farmer starts with little capital on a relatively small farm, his net income is not large enough to accumulate sufficient capital for the essential operation of a more efficient unit. The majority of his income is likely to be required to pay operating and living expenses

<sup>2</sup> Farm Costs and Returns—Commercial Family-Operated Farms, Agricultural Information Bulletin 158, ARS—USDA, 1956 and other reports.

TABLE 31.—LAND IN FARMS, CROPLAND HARVESTED, AND CAPITAL INVESTMENT, COMMERCIAL FAMILY-OPERATED, FLUE-CURED AND BURLEY TOBACCO FARMS: 1940, 1945, 1950, AND 1955<sup>1</sup>

Item	1940	1945	1950	1955
Flue-cured tobacco-cotton farms <sup>1</sup>				
Land in farms.....acres	100	100	100	100
Cropland harvested.....do	40	41	40	40
Farm capital, January 1 (dollars):				
Land and buildings.....	5,500	8,800	14,000	17,700
Machinery and equipment.....	450	820	1,830	2,580
Livestock.....	630	960	1,890	580
Crops for sale, feed, and seed.....	190	460	600	580
Total.....	6,770	11,040	17,320	21,440
Burley tobacco-livestock farms <sup>2</sup>				
Land in farms.....acres	110	113	113	116
Cropland harvested.....do	25	20	31	31
Farm capital, January 1 (dollars):				
Land and buildings.....	8,574	11,311	16,900	19,090
Machinery and equipment.....	470	723	1,170	2,040
Livestock.....	866	1,222	1,950	1,610
Crops for sale, feed, and seed.....	263	783	800	850
Total.....	10,173	14,039	20,820	23,590

<sup>1</sup> Data for 1940, 1945, and 1950 from Costs and Returns Tobacco-Cotton and Tobacco Farms, 1940-54, AE Information Series No. 47, Department of Agricultural Economics, North Carolina Agriculture Experiment Station, December 1955; data for 1955 from Farm Costs and Returns Commercial Family-Operated Farms, Agricultural Information Bulletin No. 158, ARS, USDA, 1956.

<sup>2</sup> Data for 1940 and 1945 from Farming in the Bluegrass Area of Kentucky, Kentucky Agriculture Experiment Station Bulletin 544, December 1949; data for 1950 from Farm Costs and Returns, 1953, with comparison Commercially Family-Operated Tobacco Livestock Farms, Bluegrass area of Kentucky, PERB-2 Production Economic Research Branch USDA; data for 1955 from Farm Costs and Returns—Commercial Family-Operated Farms, Agricultural Information Bulletin 158, ARS, USDA, 1956.

Conservation and improvement of the soil is a very important problem on most tobacco farms. The intensive cultivation of the land and the continued high percent of the cropland in row crops has caused serious depletion of soil fertility and serious erosion of a large proportion of the farmland in areas especially where the slope of the land is rolling to steep. Measures for conservation and improvement of all farmland need to be emphasized. Special attention should be given to the development of a cropping system

that will improve soil fertility and also help hold soil erosion to a minimum.

Making production adjustments, due to changes in economic conditions, advances in technology, and other factors, is a difficult problem for operators of tobacco farms.

For most types of tobacco, the acres that can be grown on an individual farm in a given year depend on the amount of the tobacco base for the farm and size of the national allotment. With a continued increase in yield per acre for tobacco, it has been necessary to reduce the acres that each individual farmer could grow, especially in recent years.

The average tobacco farmer faces a number of problems when he attempts to adjust farm enterprises. The size of the farm is small and this makes it difficult to increase the production of livestock. Tobacco is also a crop that has a high labor requirement per acre. The labor load is distributed over most of the months of the year with peak requirements at the time of setting and harvesting. The tobacco farmer must be careful to not add enterprises that compete too much with tobacco for labor, especially at peak periods. The failure to perform such operations as harvesting at the right time would result in the loss of the crop or one with a greatly reduced value.

Much of the tobacco is produced in areas where little outside employment is available. This means, as acres of tobacco are reduced, farmers do not have the opportunity of turning to outside employment as a means of supplementing farm income. Moreover, the nature of the requirements and distribution of labor on tobacco also limits the amount of outside work that a person can do.

The problem of adjusting to modern technology is a continuing one. Modern machines enable one man to operate a larger acreage of land. However, increases in mechanization raise the question as to the adequacy of size of the farm-operating unit. Ultimately, more acreage is likely to be required for many farmers to obtain efficient production. Adjustments in size of farm are often difficult because of the problem of acquiring additional land. Many of the operations in tobacco production do not lend themselves to mechanization, or only to partial mechanization. As a result, many farm operators have not shifted to the use of tractors or other mechanical equipment to save labor.

## PEANUT FARMS

Peanuts were first cultivated in this country in eastern Virginia. After the Civil War, peanuts spread rapidly into other Southern States, probably by soldiers who had fought in the Virginia campaigns. The commercial development of the industry actually began with the erection of modern cleaning plants. A factory for cleaning peanuts was established in New York in 1876 and in Norfolk, Va., a short time later. As peanut production extended to other States peanut factories were built throughout the South.

The most rapid growth in production came in the Cotton Belt, notably in Alabama, Georgia, Florida, and Texas. Because of the advance of the boll weevil from Texas eastward, which greatly reduced returns from cotton, farmers sought other crops and enterprises. As peanuts offered a source of income either from the direct sales of nuts or from the sale of hogs fed on peanuts, this crop rapidly became an important enterprise on many of the farms in the Southern States.

At present, there are three distinct regions in which most of the production of peanuts is concentrated. These are: (1) The Virginia-North Carolina area; (2) Southeastern or the Georgia-Alabama-Florida area; and (3) Southwestern or the Oklahoma-Texas area. Some peanuts are grown in several of the other Southern States. Figure 18 shows the percentage of cropland harvested in 1954 that was in peanuts. Figure 19 shows the farms that reported peanuts in 1954 as a percentage of all farms.

Although this crop is a major enterprise on many farms in the three specialized regions, it is one of the minor cash crops for the United States as a whole. In 1954 peanuts were grown on 3.2 percent of all farms (see Table 32). The acreage of peanuts for

all purposes represented 0.5 percent of the acreage of all harvested crops, and income from peanuts was 0.4 percent of the total cash farm income in the United States. This was a decrease from the 0.7 percent of the total cash farm income for each of the years 1944 and 1949. The percentage of farmers reporting peanuts has decreased each Census year since 1934, but the percentage of cropland harvested in peanuts was the same each Census year from 1934 to 1944.

TABLE 32.—NUMBER AND PERCENTAGE OF FARMS REPORTING PEANUTS, PERCENTAGE OF CROPLAND HARVESTED IN PEANUTS, AND PERCENTAGE CASH INCOME FROM PEANUTS IS OF TOTAL CASH INCOME FROM CROPS AND TOTAL CASH FARM INCOME, BY CENSUS PERIODS, UNITED STATES: 1929 TO 1954

Year	Farms reporting peanuts for all purposes		Percent of cropland harvested in peanuts	Percent cash income from peanuts is of—	
	Number	Percent of all farms		Cash income from crops <sup>1</sup>	Total cash farm income <sup>1</sup>
1954.....	151,227	3.2	0.5	0.9	0.4
1949.....	225,191	4.2	.8	1.6	.7
1944 <sup>2</sup> .....	309,021	5.3	1.1	1.7	.7
1939.....	491,365	8.1	1.1	1.1	.5
1934.....	576,985	8.5	1.1	.9	.4
1929.....	326,253	5.2	.7	.6	.3

<sup>1</sup> Estimates of the U. S. Department of Agriculture.  
<sup>2</sup> Peanuts grown with other crops for all purposes were not obtained in 1944 for Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

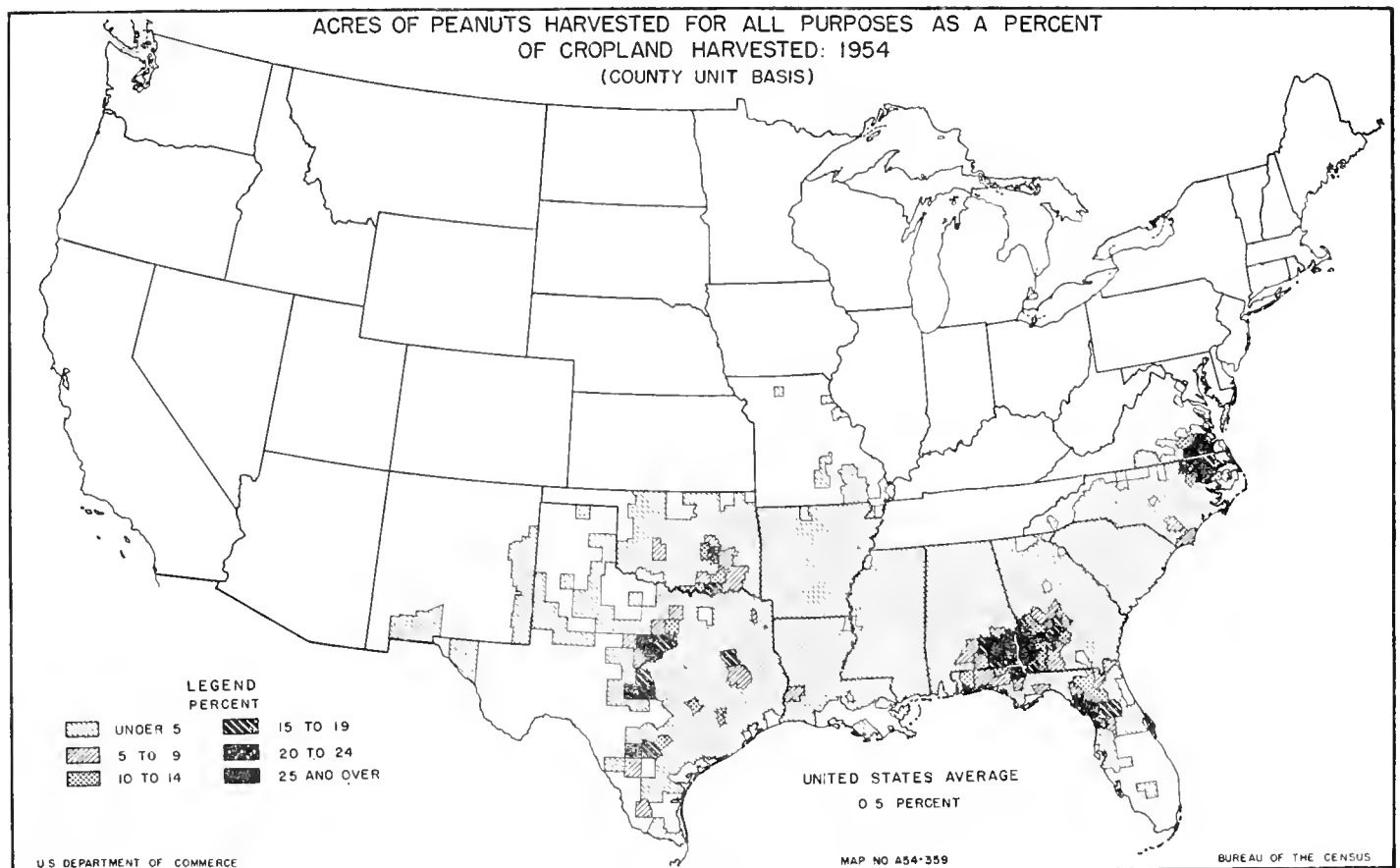


FIGURE 18

## TYPES AND VARIETIES OF PEANUTS

Three separate types of peanuts are recognized in the commercial channels of trade—the Virginia type, the Spanish, and the Runner. The Virginia-type peanut is grown mainly in the Virginia–North Carolina region. These peanuts are relatively large, with two or three kernels in a pod. The kernels are relatively long and flat and are covered with a pinkish skin. The Virginia-type supplies most of the peanuts sold in the shell and most of the large salted kernels.

The Spanish-type is the most widely distributed variety in the country. Heaviest production is in Georgia, Texas, Alabama, and Florida. The plant is upright in growth and is harvested easily as the pods are closely centered near the surface of the ground. The pods are small and the kernels are small and round. This type is used by peanut-butter manufacturers, candy makers, and nut salters. The oil content is higher in Spanish peanuts than in either Runner or Virginia.

The Runner peanut is grown commercially in Alabama, Florida, and Georgia. It has a spreading rather than a bunch form of growth. The pod is of medium size but more nearly resembles the Spanish than the Virginia type of pod. In general the yield of Runner is somewhat higher than the yield of Spanish peanuts. Because of this and their widespread adaptability to the soil and climate conditions of the Southeast they are now grown in that region to a much greater extent than in the past. Although they were originally grown for “hogging off” (“hogging off” is the practice of turning the hogs into peanut fields to eat the nuts) or crushing, increasing quantities are being used in the manufacture of peanut butter and to some extent in peanut candy.

MAJOR PRODUCING REGIONS<sup>3</sup>

Both suitable soil and favorable climate are essential to the commercial production of peanuts. They require a moderately long growing period of 4 to 5 months, with a steady rather high temperature. They need a moderate, uniformly distributed, supply of moisture, especially during the period when the peanuts are forming, followed by dry conditions during harvesting and curing.

Peanuts will grow in nearly all parts of the South, but the differences in suitability of the various soils is very wide. On some soils good yields can be obtained without difficulty, but on others the yields are low even though good production practices are followed. They are usually grown on light-textured soils. Soils that are stony, very gravelly, shallow, wet, very fine, or heavily textured, are generally not used for peanuts. Neither are extremely acid, limy, or salty soils. Deep sands, although they are sometimes used for the crop, are not well suited to it.

Climatic conditions suitable for peanuts are found from southern Virginia southward along the Atlantic seaboard and in the Gulf coast region westward to southern California. But, much of this region contains soils and areas that are unsuitable for the crop. Most of the commercial production is concentrated in three distinct regions.

**Virginia–North Carolina region.**—This is the oldest peanut-producing region. It is composed of 16 counties located in southeastern Virginia and northeastern North Carolina. The land is low and mostly level with about 60 percent in farms. The remainder is largely second-growth woods and swamps. The productive farming areas are on the well-drained, light-colored, sandy loams. The dark, heavy soils are generally badly drained and not cropped.

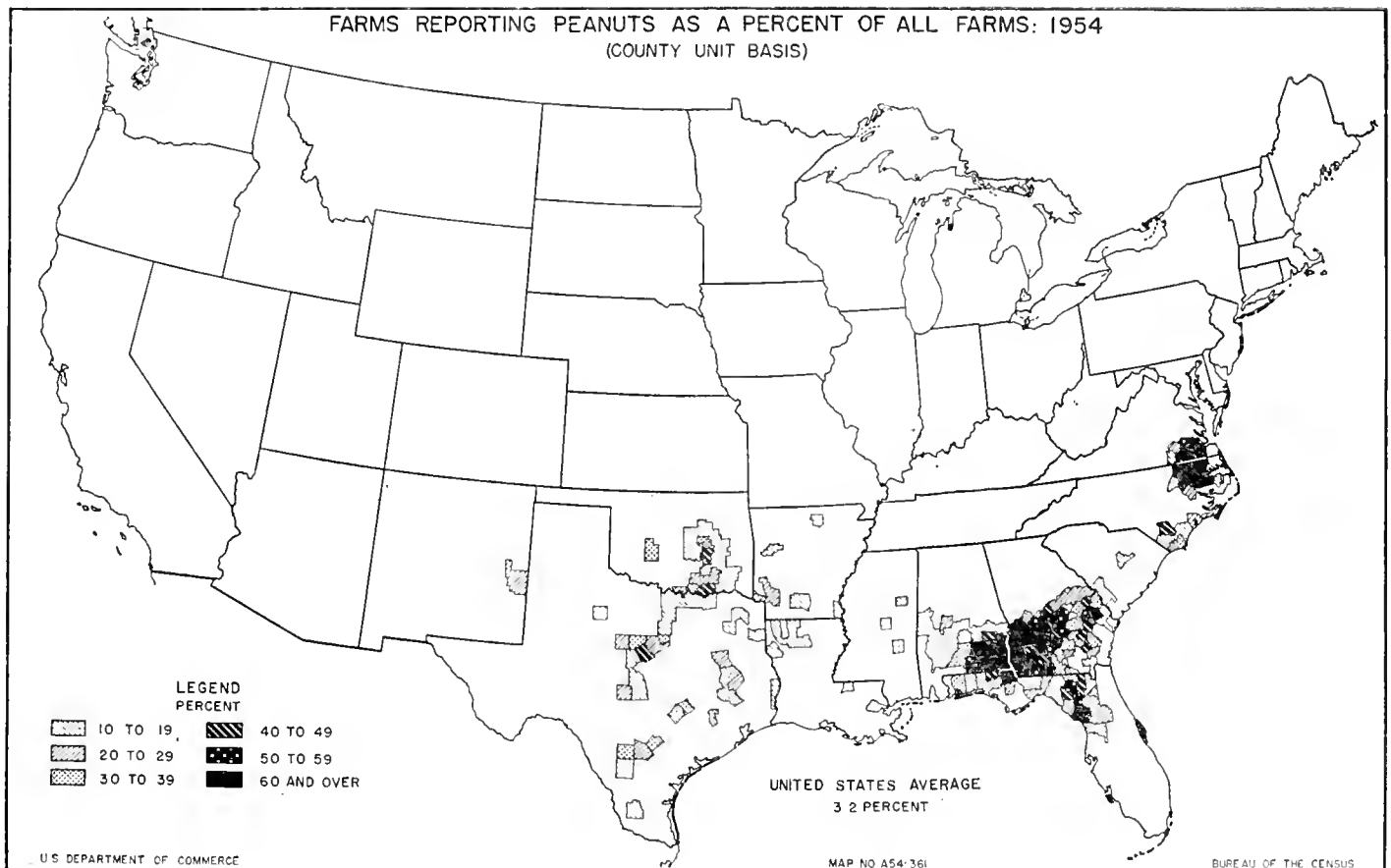


FIGURE 19

<sup>3</sup> For a more detailed description of the major producing areas see U. S. Department of Agriculture publications (1) Farmers' Bulletin 2063, "Growing Peanuts" by J. A. Beattie, May 1954, and (2) FM 65 "Peanuts in Southern Agriculture" by K. L. Bachman, G. B. Crowe, and K. V. Goodman, May 1947.

The agriculture of this country is characterized by keen competition between cash crops. Peanuts, cotton, and tobacco and, in some sections, soybeans are grown. Frequently all three of the basic cash crops, or a combination of two of them, are raised on the same farm. Tobacco, under present prices, commands the most favorable position among the enterprises; expansion in tobacco acreage has been limited by production controls. The abundance of peanuts has led to large-scale production of hogs. The harvested peanut fields are cleaned up by hogs which are later finished on corn. Actually, corn is the crop with the largest acreage.

Soils in the region as a whole are very suitable for intensive growing of peanuts. They are grown on the well-drained sandy loam soils which predominate in the area. The most important of these soil types are Norfolk and Ruston sands and sandy loams. The principal poorly drained soils are of the Dunbar and Portsmouth series. Soils on more than 90 percent of the cropland in the Virginia part of the region are classified as suitable for peanuts. Soils in the North Carolina part are not quite so homogeneous. Some of the soils in the eastern part of the region are poorly drained. Some of the counties on the western side have soils similar to those found in the Piedmont which are generally less suitable for this crop.

Crop yields in general in the Virginia-North Carolina region are higher than in many other parts of the South. Relatively favorable yields of peanuts are obtained on all suitable groups of soils. On soils classified as excellent for peanuts, yields averaging more than 1,400 pounds to the acre are frequent. Because of the favorable returns, farming systems are generally built around peanuts as the major cash crop. Almost every farmer grows some peanuts, generally in a 3-year rotation with corn and cotton or soybeans. On farms that have tobacco allotments the acreage in tobacco is usually the amount that can be grown under the tobacco program. There has been considerable competition between peanuts and cotton but in recent years more favorable returns have usually come from peanuts. Feed crops have been fitted into the farm organization to utilize the remaining resources and to provide food for the home and feed for livestock. Hog production is important as hogs are used to clean up the peanut fields.

**Georgia-Alabama-Florida region.**—Large tracts of soils in the Coastal Plain region in South Carolina, Georgia, Alabama, and Florida, are suitable for peanuts. Commercial production has been concentrated in areas where cotton yields have been low because of climate, boll weevil, and other conditions. Production is centered mainly in subregion 41 and parts of subregion 38. Minor differences in physical production conditions are found in the Georgia-Alabama-Florida part of the region. Soils in southeastern Alabama are somewhat mixed, particularly in the westerly direction and on the edges of the Black Belt, but the predominant soils are the same as in the peanut parts of Georgia and Florida except for the Georgia Red Belt section. On most of the peanut farms, except in the Georgia Red Belt, the principal soils are of Norfolk, Ruston, or Tifton series, which are similar in many of their characteristics and are well suited for both Runner and Spanish peanuts. The soils in the southwestern Coastal Plain area of Georgia and Florida are sandy to a greater depth. Runner peanuts make up a larger proportion of the output. The Greenville, Magnolia, and Faceville soils, which predominate in the Georgia Red Belt section, are somewhat heavier in texture than soils in other sections. These heavier soils, although well adapted to Spanish peanuts, are not so well suited for hogging off as the Norfolk, Ruston, or Tifton soils.

The agriculture as a whole, of the part of this production area located in the southeastern Coastal Plain of Alabama, the southwestern Coastal Plain of Georgia, and the Coastal Plain Red Belt of Georgia, has long been based on a cash-crop economy. During the last 40 years, however, the emphasis has been shifted from almost a complete reliance on cotton to major reliance on peanuts

as a source of income. Just before World War II, cotton and harvested peanuts were about equal in importance in the farming system. During the war period the peanut acreage increased greatly, and in 1944 a little more than 3 acres of peanuts were picked and threshed for each acre of cotton. In 1954 the ratio of peanuts to cotton was 1.1 to 1.

Farms here can be classified as peanut-cotton types. Corn is the chief feed crop but considerable acreages of peanuts are hogged off. Commercial livestock is limited chiefly to hogs especially on the larger farms. The competitive position of cotton here is apparently stronger than in the Virginia-North Carolina region. That is, it requires a smaller shift in the relative prices of the two crops to cause a shift between the acreage of the two crops.

Farming systems on farms growing peanuts in the Coastal Plain of Georgia and northern Florida differ from those discussed above. Because the soils are sandy to a greater depth, Runner peanuts predominate. Runner peanuts are not wanted as much by the edible trade; before World War II they sold at considerably lower prices. Cotton and tobacco were the chief cash crops there and most of the peanuts were hogged off.

During the war many substantial shifts occurred in the farming of this area. Increased demands for peanuts and favorable prices made it more profitable to harvest Runner peanuts for sale. The acreage of harvested peanuts was greatly expanded except on farms that grew tobacco. Acres in cotton decreased as well as acres in corn for, on many farms, the old practice of planting peanuts with corn was supplanted by the planting of peanuts alone.

Hog production is one of the major enterprises in this part of the region and on other farms in the area where sizable acres are hogged off. Probably the most usual method of production is to carry the hogs through the spring and summer on a maintenance ration of corn and range grazing. Sometimes special grazing crops are planted to provide feed for the pigs. Some buying and selling of feeder pigs takes place as the season progresses and the farmers are able to estimate their prospective feed supplies more accurately. When peanuts are ready for grazing, the hogs are turned into the fields. They remain there until they reach a finish weight, or until the feed supply is exhausted. Consequently, many hogs are marketed at a light weight or are sold as feeders to farmers elsewhere. Some of the late-farrowed pigs may be carried through the winter to be fattened on the peanut crop of the following year. Breeding stocks, and pigs and shoats not sold, are carried through the winter by allowing them to glean the fields and are fed a maintenance ration of corn.

**Oklahoma-Texas region.**—Commercial peanut production in the Southwestern region is found almost entirely in Oklahoma and Texas. Considerable tracts of sandy soils suitable for peanuts occur in many parts of the States in this section but climatic and other conditions have restricted peanuts in several of them. Before World War II, commercial production was limited primarily to the Rio Grande Plain and West Cross Timbers area in Texas and to Bryan County in the Coastal Plains of Oklahoma. Wartime demand brought a rapid increase in the acreage in the eastern and central parts of Oklahoma and Texas.

In terms of total acreage and production, the Cross Timbers is the leading peanut-producing section in Oklahoma, but the proportion of the cropland used for the crop is small. Since this region includes a wide diversity of physical conditions, there is a considerable variation in size and type of farm and in crops grown. On some farms where soils are not well suited for crops, the system of farming is based largely on livestock. Although operating units vary from small part-time units to large cattle ranches, about half of the farms are between 70 and 180 acres in size. Approximately one-fifth of the cropland is used for small grains. These crops are grown largely on the prairie section rather than on the sandy soils.



Cotton and corn are the dominant crops on the sandy locations. Peanuts are limited more to the sandier soils. For the region as a whole, the average acres of peanuts per farm is small, but they are an important enterprise on farms where grown.

Production areas in Texas vary considerably within the State. Some peanuts are grown in the northeast Texas Sandy Lands area, located in the northeastern corner of the State. The upland soils are sandy and only moderately productive. The agriculture is characterized by small farms, irregular shaped fields, and simple tools. The basic cropping system centers around cotton and corn, supplemented in many parts by many special crops, including vegetables, small fruits, and nursery plants. Farmers have been inclined to plant peanuts on land that is not well adapted to other crops and this meant growing peanuts on the poorer soils.

Peanut production methods here resemble those in the Southeast in that acreages are small, power and equipment units are small, and much hand labor is used in digging and stacking. Almost every farmer who grows peanuts also grows a substantial acreage of cotton. Peanuts do not compete favorably with cotton except on the better soil types. The acreage of peanuts grown depends mainly upon the relation between prices for peanuts and for competing crops and the extent to which farmers use technological improvements to reduce costs and increase returns.

The West Cross Timbers area of Texas is the most important area of peanut production in the Oklahoma-Texas region. The agriculture of the area has changed greatly in the last 40 years. Before World War I, cotton occupied about two-thirds of the cropland and was the major source of cash income. Peanuts have almost completely replaced cotton on the sandy soils and are now the principal cash crop in the area. Climate, topography, and size of farms, have been favorable to the mechanization of production. At present, most of the farms are highly mechanized in regard to this crop.

The soils of the West Cross Timbers area are not very homogeneous. In some parts, considerable rough, shallow, stony soils are found. They are used primarily for grazing. The sandy soils used for peanuts are largely brown and fine sandy loam, low in organic matter and in some essential nutrients. They are of low to moderate inherent fertility and have sandy clay subsoils.

There are a number of livestock farms here located on the rougher land and soils unsuited for peanuts. The larger peanut farms have a very high proportion of their land in the crop which probably has been encouraged by the mechanized method of production. On smaller peanut farms a higher proportion of the cropland is devoted to cotton, truck, or miscellaneous crops. On the more suitable soils returns are particularly favorable to peanuts. However, to plant land continuously to peanuts, or in short rotations, quickly reduces the fertility. To maintain profitable production on many of the peanut farms, increased emphasis must be placed on developing suitable rotations and corrective practices to check water and wind erosion and the loss of soil fertility.

A third production area in Texas is in the Rio Grande Plains area and includes most of the counties of Frio and Atascosa and parts of the counties of Medina, LaSalle, and Wilson. Here, agriculture is characterized by a wide diversity of products. Livestock farming and cattle ranching are of some importance. Peanuts, grain sorghums, cotton, watermelons, and truck crops are among the most important crops. Cotton yields are low and the cotton acreage is rapidly declining. Cropland acreages per farm are large and crop production, particularly for grain sorghum and peanuts, has been highly mechanized. The climate, topography, and location of suitable soils, are all favorable to mechanized production of peanuts.

Much of the Rio Grande Plains area is used for grazing except for locations where irrigation is practicable. Farm organization varies considerably from farm to farm. The major competition for the use of land occurs between peanuts and feed crops such as grain sorghum. Peanuts are the dominant crop. Feed crops (such as grain sorghums and corn) are grown and fed primarily to cattle. Watermelons and broomcorn are depended upon as cash crops on some farms but returns from watermelons fluctuate widely depending on prices and marketing conditions. The speculative nature and the high labor requirements tend to restrict acreages of watermelons and truck crops to a small proportion of the cropland.

#### TRENDS IN ACRES, YIELD, AND PRODUCTION

The trends in acres, yield, and production of peanuts have been different in the different regions. The expansion of the crop during World War II was much greater in the Oklahoma-Texas and the Georgia-Alabama-Florida regions than in the North Carolina-Virginia region. This made necessary more adjustments in the farming systems of these regions as reduction has taken place in the acres grown. In presenting the material in this part of the report, the data for minor States have been grouped with the major regions. Acreage and production in Tennessee are included in the North Carolina-Virginia region; acreage and production in Mississippi are included in the Georgia-Alabama-Florida region; and data for Arkansas, Louisiana, and New Mexico are included in the Oklahoma-Texas region.

**Acreage.**—Acres of peanuts picked and threshed in 1910 are estimated at 464,000 acres (see Figure 20). Of these, 66 percent was in the North Carolina-Virginia region, 23 percent in the Georgia-Alabama-Florida region, and 11 percent in the Oklahoma-Texas region. From 1910 to 1913 there was a gradual expansion in the acres of peanuts picked and threshed, with a rapid expansion during each of the war periods.

The trend in acreage in the three regions from 1910 to 1955 has not been the same. The acreage in the North Carolina-Virginia region was only slightly higher at the end of the period than it was at the beginning and did not increase a great deal during either war period. In the Georgia-Alabama-Florida region, acreage increased rather rapidly after 1914 and reached a peak of 1,904,000 acres in 1943. This region has led in acreage since 1917. Acreage in the Oklahoma-Texas region declined after World War I to almost what it was before the war. Acreage began to increase again about 1927 but the most rapid increase came after 1941. The peak acreage was reached in 1947 when peanuts from 1,187,000 acres were picked and threshed.

In addition to peanuts that are grown to be picked and threshed, a considerable acreage in the United States is hogged off each year. This practice is not very common in the North Carolina-Virginia region; 95 percent or more of the acreage grown alone each year is picked and threshed (see Figure 21). In the other two major regions only about three-fourths or less of the total crop grown alone is picked and threshed. The proportion so harvested in the Oklahoma-Texas region has increased greatly since 1935. This change was probably brought about partly by the increase in mechanization of production in that area which made picking and threshing relatively more profitable. The decrease in percentage picked and threshed since 1950 was probably due to the very low yield during this period. In the Georgia-Alabama-Florida region, peanuts are interplanted with some other crop, mainly corn, on about 200,000 acres each year. Peanuts on this land are also usually hogged off.

PEANUTS PICKED AND THRESHED: ACREAGE, YIELD PER ACRE, AND PRODUCTION, BY AREAS, UNITED STATES, 1910-1955

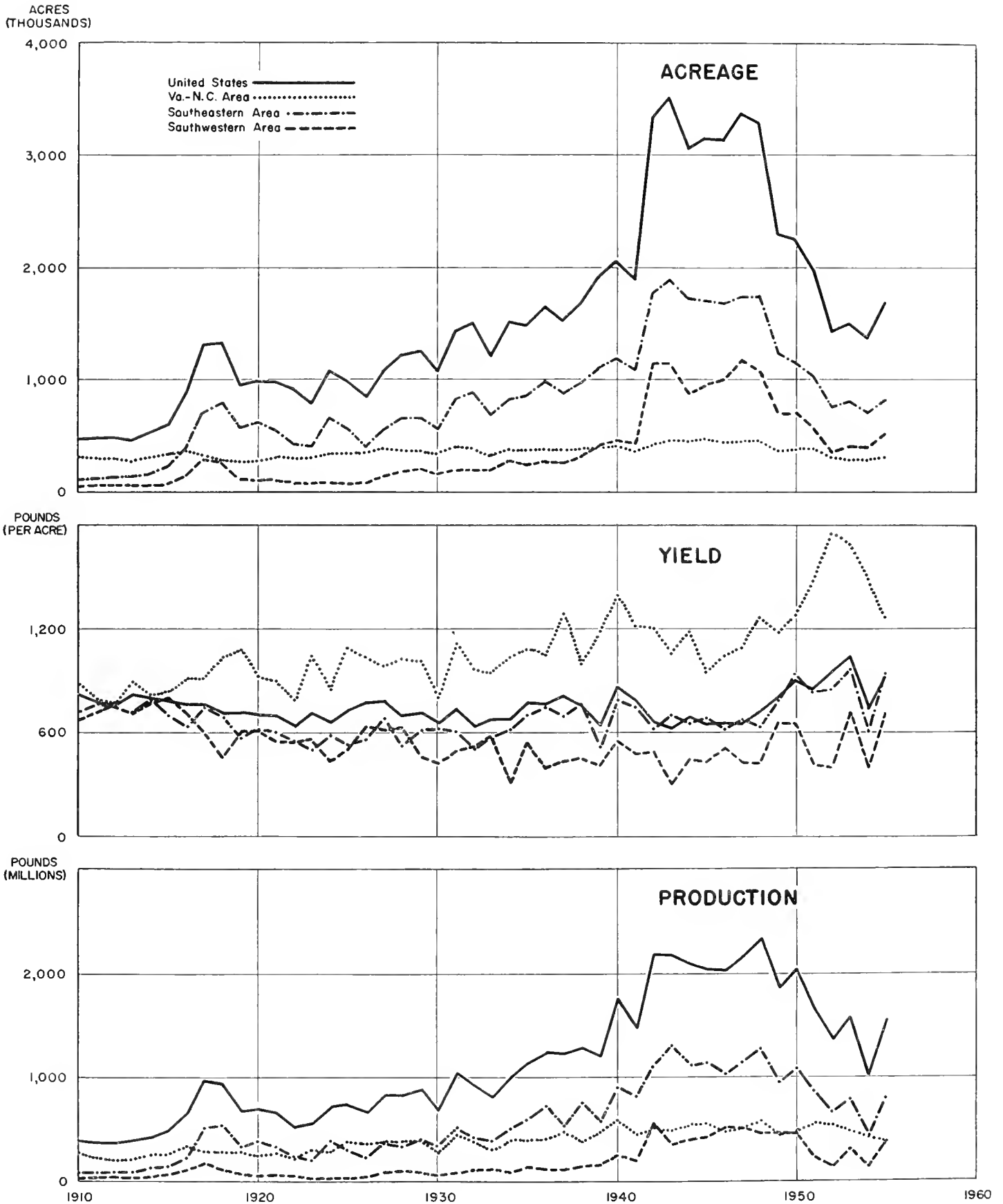


FIGURE 20

**PEANUTS: PER CENT ACREAGE PICKED AND THRESHED IS OF TOTAL ACREAGE GROWN ALONE FOR ALL PURPOSES, BY AREAS AND FOR UNITED STATES, 1926-1955**

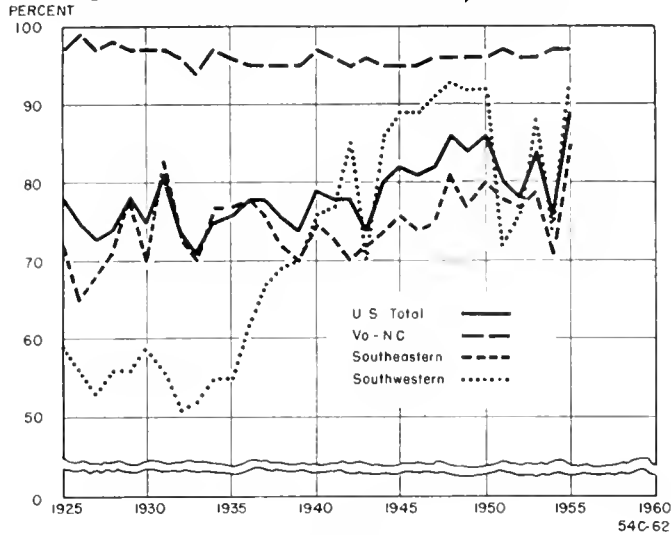


FIGURE 21

**Yield.**—Unlike most other crops, the yield per acre of peanuts has not shown much increase from 1910 to 1955. It decreased during both of the war periods. This decline was due primarily to the relative greater acreage expansion in the lower yielding areas of the West and the influence of new and inexperienced growers. As the acreage has decreased since 1948, yield per acre has increased. Normally, yield per acre in the North Carolina-Virginia region is about 50 percent more than in the Georgia-Alabama-

Florida region and 2 to 3 times as great as in the Oklahoma-Texas region.

**Production.**—Peanuts picked and threshed rose from 384 million pounds in 1940 to a record high of 2,336 million pounds in 1948. This was a sixfold increase. Up to 1949 the increase in production was somewhat proportionate to the increase in acres, except during war periods when yield per acre declined. Since 1949, total production has not declined as much as acreage has decreased for there has been an upward trend in yield per acre. Because of the very favorable yield in 1955, the total production was 67 percent of the peak production in 1948, although the 1955 acreage was only 51 percent of the 1948 acreage.

During the last 5 years, 1951 to 1955, 49 percent of the peanuts harvested were produced in the Georgia-Alabama-Florida region, 34 percent in the North Carolina-Virginia region, and 17 percent in the Oklahoma-Texas region. Production in the Oklahoma-Texas region during this period was lower than it would normally have been because of a fairly low yield per acre in 3 of the 5 years.

**DISPOSITION OF SUPPLIES**

The major concern in agricultural program and price policy is the problem of adjusting the quantity produced to the quantity consumed. This has been a problem for the peanut crop during the last few years, although during the war considerable effort was made to get producers to increase production.

The uses of peanuts in the United States have increased along with production (see Figure 22). The peak in domestic disappearance was reached in the year beginning September 1944 when 2,173 million pounds (farmers' stock basis) were used. This compared with an average of only 424 million pounds during the 1910-14 period. Although exports were fairly limited before 1945, large quantities have been exported in several years since that time.

**PEANUTS: SUPPLY AND DISPOSITION, UNITED STATES, 1910-1955**

POUNDS (BILLIONS)

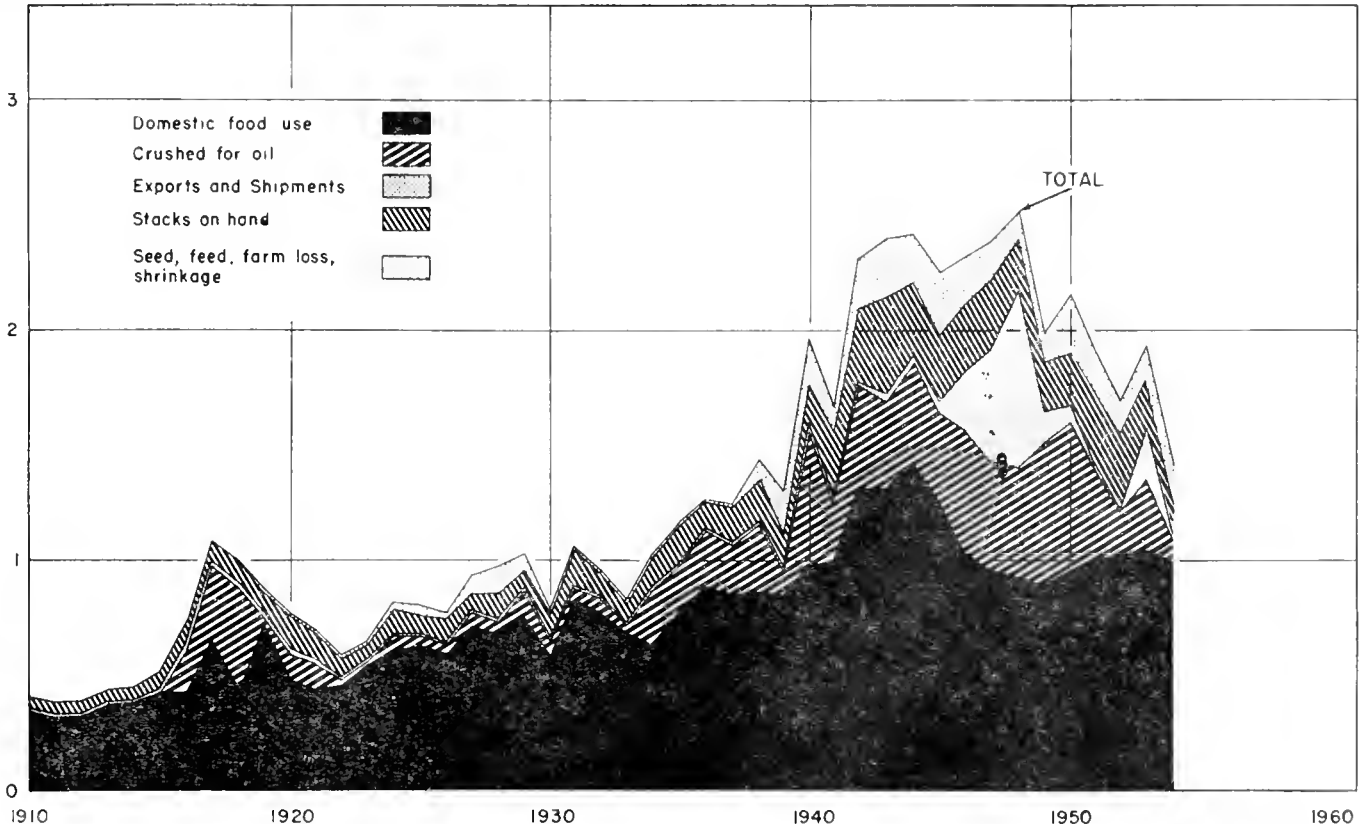


FIGURE 22

Picked and threshed peanuts are used in the United States for edible products, for crushing, and for seed. A small quantity is fed to livestock on farms. Domestic disappearance during the 5-year period, 1950-54, averaged 1,495 million pounds (farmers' stock basis) per year. Of this quantity, domestic food uses accounted for 1,003 million pounds, or 67 percent; and crushing, 331 million pounds, or 22 percent.

**Trends in consumption.**<sup>4</sup>—From 50 to 75 percent of the domestic consumption of peanuts is represented by food products, chiefly peanut butter, candy, salted nuts, and roasted in the shell. The commercial food use of peanuts has increased steadily since 1920. Food consumption reached an all time high of 1,428 million pounds (farmers' stock basis) in 1944, which was about 3 times the 482 million pounds consumed in 1920 (see Table 33). Consumption of cleaned (roasted-in-the-shell) peanuts has been relatively constant since 1920. Use in peanut butter has more than doubled, and use in candy making and in salting has increased considerably. In recent years, makers of peanut butter have taken about half of the shelled nuts used in edible products. Use in candy and as salted nuts, each has taken about one-fourth of the total. These shifts in the proportions of peanuts going into the different uses have had an effect on the demand for peanuts grown in the various areas.

The civilian per capita consumption of peanuts for food uses reached an all-time high of 9.1 pounds (farmers' stock basis) in 1945 (see Table 33). This compared with 6 pounds in 1954 and 3.6 pounds in 1910. The large increase in per capita consumption during the war is believed to reflect mainly the substitution of peanut products for other foods in short supply such as butter, cheese, sandwich meats, jams and jellies, candy, and imported nuts.

TABLE 33.—DOMESTIC FOOD USE OF PEANUTS FOR THE UNITED STATES: 1910 TO 1954

Year beginning Sept. 1	Domestic food use			Year beginning Sept. 1	Domestic food use		
	Military	Civilian	Civilian per capita		Military	Civilian	Civilian per capita
	Million pounds	Million pounds	Pounds		Million pounds	Million pounds	Pounds
1910		345	3.6	1945	14	1,243	9.1
1915		426	4.2	1946		1,036	7.2
1920		482	4.5	1947	3	951	6.5
1925		627	5.4	1948	6	914	6.2
1930		588	4.8	1949	7	892	5.9
1935		770	6.0	1950	14	947	6.2
1940		970	7.2	1951	10	991	6.4
1941	74	928	6.9	1952	10	1,008	6.4
1942	146	1,170	8.9	1953	10	1,034	6.5
1943	223	1,092	8.4	1954 <sup>1</sup>	9	984	6.0
1944	288	1,110	8.7				

<sup>1</sup> Preliminary figures.

Source: United States Department of Agriculture, Agricultural Marketing Service.

Since 1946, per capita consumption of peanuts has averaged slightly below the level of the 1936-41 period. Thus the long-time trend in increase in per capita consumption, which averaged approximately 1.9 ounces<sup>5</sup> per year (farmers' stock basis) for the period 1920-41, has not been maintained since the war. The failure of the upward movement to continue suggests that the demand for edible peanuts has slackened off and the industry has passed the period of continued expansion, except that which may be due to the increase in total consumption resulting from increase in population.

<sup>4</sup> For a more complete discussion of this subject see "Peanuts and Their Use for Food" by Banna, Antoine, Armore, Sidney J., and Foote, Richard J., United States Department of Agriculture Publications, Marketing Research Report No. 16, 1952.

<sup>5</sup> Freund, Rudolf, "What is Wrong With the Peanut Market," unpublished manuscript, North Carolina Agricultural Experiment Station.

<sup>6</sup> Downing, James C., Council, James C., and Grigsby, S. Earl, "Balancing Labor and Land Resources for Wartime Production," FM39, United States Department of Agriculture, Bureau of Agriculture Economics, January 1943.

<sup>7</sup> If the quantity left in the ground was 130 to 150 pounds, each pound of gain would require 2.9 pounds of peanuts.

<sup>8</sup> Unpublished data, Florida Agricultural Experiment Station.

The per capita expenditures for peanut products used in homes tend to increase as income increases. But based on analysis for 1920-40 and 1946-50, the demand for both cleaned and shelled peanuts at the wholesale level is relatively inelastic.<sup>4</sup> A 1-percent change in the wholesale price, on the average, has been associated with a change of 0.3 percent in the opposite direction in per capita consumption of cleaned peanuts and 0.4 to 0.5 percent in per capita consumption of shelled peanuts. A 1-percent change in disposable income, on the average, resulted in a change of 0.6 percent in the same direction in per capita consumption of cleaned peanuts and 0.4 to 0.6 percent in that of shelled nuts.

**Crushing for oil.**—Very few peanuts were crushed for oil before World War I. In 1916, however, there was an estimated crush of about 177 million pounds (farmers' stock basis) and the quantity rose to 441 million pounds in the 1918-19 crop year. Very few peanuts were crushed between 1919 and 1934. Beginning with 1934, Government programs were instituted which encouraged the use of peanuts for crushing and substantial quantities were so used. The peak before World War II was reached in 1940 when 601 million pounds were crushed; the all-time high came in 1950—642 million pounds.

Before Government programs were begun, the quantity of peanuts crushed depended upon the quality of the crop and the relative profitability of shelling and crushing. Each year, a few low-grade farmers' stock peanuts and a small percentage of the kernels, from shelling operations, that were not suitable for food uses, were crushed. Beginning in August 1947 and continuing to the 1951 crop, the Commodity Credit Corporation was permitted to buy surplus production largely in the form of No. 2 grade shelled peanuts, rather than as farmers' stock peanuts. This resulted in a substantial increase in the crushing of farmers' stock peanuts.

**Feed, seed, farm loss, and shrinkage.**—Of the total supply of peanuts picked and threshed, feed, seed, farm loss and shrinkage account for only about 10 percent of the disposition each year. This means that on farms where peanuts are grown, very few nuts that are picked and threshed are fed directly to livestock. However, not included in the statistics on disposition is the amount of peanuts eaten by the hogs that are run on peanut fields after the nuts are harvested and, also, the amount of peanuts hogs eat in fields that are hogged off.

Many Runner peanuts usually are left in the ground after digging. It has been estimated that in many instances there are enough peanuts to produce 50 pounds<sup>6</sup> of pork to the acre from gleanings.<sup>7</sup> There is no estimate on the acreage of peanuts gleaned each year, but, if the amount were only as much as 400,000 acres, this would be enough peanuts to produce 20 million pounds of pork.

The amount of pork produced per acre on peanuts that are hogged off varies depending on the yield per acre, the condition of the peanut crop, and whether or not the hogs have access to a mineral mixture and are fed protein supplements. Experiments in Florida by Pace and Glasscock showed that hogs which received a complete mineral mixture produced 466 pounds of pork per acre of peanuts grazed, while those grazing peanuts alone and not receiving a mineral mixture produced only 258 pounds of pork per acre.<sup>8</sup> For the 5-year period 1951-55, the amount of peanuts grown in the southeastern section and not picked and threshed averaged 378,000 acres per year. If this amount was hogged off and the amount of pork produced per acre was only 200 pounds, this would be enough feed to produce 75,600,000 pounds of pork.

From these data it is evident that peanuts make an important contribution to the production of pork in the peanut areas, a fact which is not evident from the statistics on disposition.

**Exports.**—In the period 1910–42 only about 1 percent of the domestic production of peanuts was exported. About 90 percent of the quantity exported was for edible use in Canada. During the 1930's most of the export market in Canada was lost because of competition with lower-priced peanuts from the Far East. Beginning with 1943, exports to Canada increased substantially, as Far Eastern peanuts were no longer available. Because of the world shortage of fats and oils immediately after the end of World War II, large quantities of peanuts from this country were exported to Europe for crushing. Total exports of peanuts from the United States rose from 63 million pounds (farmers' stock basis) in 1945 to 252 million pounds in 1946 and reached a peak of 762 million pounds in 1948 (see Figure 22). The principal countries to which shipments were made were France, Italy, Germany, and Japan. With the improvement in the world's supply of fats and oils and the decline in production of peanuts in this country (with the exception of 1953), very few peanuts have been exported since 1950. Exports in 1953 amounted to 227 million pounds (farmers' stock basis). Increase in exports in 1953 were due mainly to activities relating to the price-support program.

#### PROGRAMS AND POLICIES, 1933–55

In each year since 1933, with the exception of 1936–37, the United States Department of Agriculture has had a program in effect to support the price received by producers for peanuts. Details of the programs have varied from year to year, reflecting changes in production trends, and in the relative demands for peanuts for direct use in edible products and for crushing for oil and meal. These programs are noteworthy because of the influence they have had on the supply and utilization of peanuts and because somewhat similar programs may be continued in the future.

An outline of the stages through which the programs have passed and a brief appraisal of the effects of governmental programs on the disposition of commercial peanut supplies since World War II are desirable. Selected statistical data relating to the programs are given in Table 34.

The several peanut programs can be divided into three phases. The first phase became effective on January 27, 1934, and was made applicable to the 1933 crop. Processors of peanuts entered into marketing agreements in which they agreed to pay minimum prices to growers of \$65 per ton for Southeastern and Virginia-North Carolina Spanish-type peanuts, \$60 for Virginia-type<sup>9</sup> and for Southwestern Spanish, and \$55 for Runner type. These prices represented about twice the season average price for the 1932 crops and proved to be too high to be practical. Processors stopped buying peanuts but they continued to process for farmers on a toll basis. The marketing agreement was terminated in the fall of 1934 at the request of the majority of the millers.

The next phase of the peanut program began with the 1934 crop after peanuts were designated as a basic agricultural commodity. The measure adopted did not guarantee minimum prices but an effort was made to increase the incomes of peanut growers by diverting peanuts from the edible trade to be crushed for oil and by adjusting production. In 1934 growers could obtain up to \$20 per ton for diverting up to 20 percent of their production to oil. They could also receive an adjustment payment of \$8 per ton on peanuts harvested in 1934, if they agreed to limit their 1935 acreage of peanuts picked and threshed to the average of 1933 and 1934. Payments were also made to processors to buy and crush farmers' stock peanuts. During the 1934 season approximately 154 million pounds of farmers' stock peanuts were diverted to crushing for oil. The diversion program for peanuts grown in 1935 was essentially the same as in 1934.

<sup>9</sup> Later changed to \$65 per ton for Virginia type.

TABLE 34.—PEANUTS: ACREAGE, SUPPORT LEVEL, PRICE RECEIVED BY FARMERS, QUANTITY PLEDGED FOR PRICE SUPPORT LOANS, AND QUANTITY PURCHASED UNDER PRICE SUPPORT PROGRAMS: 1935 TO 1955<sup>1</sup>

Crop year	Acreage			Support level <sup>2</sup>		Average price per pound received by farmers	Quantity pledged for price support loans	Quantity purchased under price support programs <sup>3</sup>
	Allotment	Picked and threshed	Percentage of allotment	Percentage of parity on Aug. 1	Per pound			
				Per cent	Cents			
1935	1,497	1,497	100	90	11.6	3.1	73	
1936	1,660	1,660	100	90	11.6	3.7	—	
1937	1,538	1,538	100	90	11.6	3.3	173	
1938	1,692	1,692	127	90	11.6	3.3	243	
1939	1,968	1,968	142	90	11.6	3.4	26	
1940	2,052	2,052	136	90	11.6	3.3	59	
1941	1,900	1,900	118	68	4.3	4.7	379	
1942	1,610	3,355	208	90	6.6	6.1	899	
1943	1,610	3,528	219	90	7.1	7.1	297	
1944	3,068	3,068	140	90	7.3	8.0	251	
1945	3,160	3,160	88	90	7.5	8.3	309	
1946	3,141	3,141	103	90	8.6	9.1	400	
1947	3,377	3,377	105	90	10.0	10.1	383	
1948	3,296	3,296	84	90	10.8	10.5	483	
1949	2,629	2,308	88	90	10.5	10.4	345	
1950	2,200	2,262	103	90	10.8	10.9	552	
1951	1,889	1,982	105	88	11.5	10.4	253	
1952	1,706	1,443	84	90	12.0	10.9	107	
1953	1,679	1,515	90	90	11.9	11.1	457	
1954	1,610	1,387	86	90	12.2	12.2	14	
1955	71,731	1,691	98	90	12.2	11.6	298	

<sup>1</sup> Source: United States Department of Agriculture, Agricultural Marketing Service.

<sup>2</sup> Farmers' stock basis.

<sup>3</sup> From 1937 through 1940, the Commodity Credit Corporation made nonrecourse loans to peanut cooperatives to finance, purchase, storage, and diversion of sale of farmers' stock peanuts by these cooperatives in order to facilitate a surplus-removal program of the Department of Agriculture.

<sup>4</sup> Under the Agricultural Conservation program.

<sup>5</sup> Support level originally announced at 85 percent of parity, or 6.2 cents per pound, but revised Oct. 3, 1942, before a substantial movement of eligible peanuts took place.

<sup>6</sup> Marketing quotas and acreage allotments under Agricultural Act of 1938 suspended.

<sup>7</sup> The original 1955 allotment of 1,610,000 acres was increased by 7.5 percent in May 1955.

The Supreme Court's decision in the Hoosac Mills case on January 6, 1936, invalidated the production control and processing-tax provision of the Agricultural Adjustment Act. Under the provisions of a new law (the Soil Conservation and Domestic Allotment Act, passed by Congress in February 1936) the two principal means of supporting the price of peanuts were continued. Peanuts continued to be diverted from edible use to be crushed. Instead of paying farmers to reduce the acreage of peanuts grown, payments were made for diverting land from soil-depleting uses to soil-conserving and soil-building uses. A base acreage was established for each farm on the basis of acreage picked and threshed in previous years. On the 1936 crop, growers received \$25 per ton of the normal yield per acre up to 20 percent of the base acreage used for non-soil-depleting crops.

The program for the 1936 crop was continued much on the same basis through the 1940 crop. In 1937, penalties were adopted for harvesting more than base acreages. These penalties were in forms of a stated deduction per ton on the normal yield per acre harvested in excess of the base acreage. These payments and penalties, which applied only to the farmers who participated in the agricultural conservation program, probably kept participating growers from expanding their acreage of peanuts picked and threshed. However, participating growers did have an incentive to increase yields, and nonparticipants brought about an expansion of acreage particularly in the Southwest. In 1940 a slightly increased acreage and a record yield resulted in a production 37 percent higher than in any previous year. As a result, diversion of peanuts to crushing for oil rose to a new peak; for the 1940–41 crop it was more than twice that in any previous year.

The third phase of the peanut-support program followed the large crop in 1940. New legislation was enacted on April 3, 1941, which amended the Agricultural Adjustment Act of 1938 to

authorize marketing quotas for peanuts and reestablish peanuts as a "basic commodity." Growers voted for marketing quotas to be applied in 1941, 1942, and 1943. Nuts produced in excess of quotas were subject to a penalty of 3 cents per pound. Participation in the program was broadened; whereas in 1940 allotments were made in only 6 leading States, in 1941 they were made in 14 States. Acreage in 1941 was 7 percent less than in 1940 and production declined 15 percent.

The entry of the United States into war in December 1941 made it imperative to increase the output of oils and fats from domestic materials. The peanut program became one of expanding rather than restricting production. The Government offered price guarantees of 90 percent parity to the growers of soybeans, cottonseed, and peanuts, at the same time the prices of oils and fats were kept low by means of price controls. Marketing quotas were suspended in 1943. To bridge the gap between relatively high prices to growers, and artificially low prices to consumers, the Commodity Credit Corporation became the sole buyer of farmers' stock peanuts in 1943, 1944, and 1945, and supervised the allotment of supplies to different areas in line with various wartime regulations.

The exclusive authority of the Commodity Credit Corporation to buy and sell peanuts was discontinued with the 1946 crop. But the wartime price guarantee for peanuts was extended through the year 1947 in order to protect farmers against an expected decline in the demand for their products. The supports were supplied through a system of purchases and loans. In 1946 a program was begun to increase the diversion of No. 2 shelled peanuts to oil, to encourage the use of inferior peanuts in the production of oil and meal, and the use of No. 1 shelled peanuts for edible use only. As it turned out, the demand especially for vegetable oils was so extremely strong during 1946 and 1947 that peanut prices would probably have stayed fairly high even without price guarantees and supports.

Beginning with the 1948 crop, the Government and the growers thought it advisable to adjust future supplies to lower levels. Since peanuts were a basic commodity, growers could vote for acreage allotments and marketing quotas. On October 9, 1947, peanut growers voted in favor of marketing quotas to be effective for the 1948, 1949, and 1950 crops. The Secretary of Agriculture, however, suspended quotas for the 1948 crop in view of the critical world shortage of food fats and oils. Acreage allotments and marketing quotas have been in effect for peanuts since the 1949 crop.

Under the allotment program, the acreage of peanuts picked and threshed declined each year from 1949 to 1954 but the decline in supplies was not quite as large. For the 1949 and 1950 crops, growers could "overplant" their allotted acreage by a certain percentage and sell the production from this excess acreage through an agency designated by the Secretary of Agriculture at oil-stock prices. Peanut yields have tended to increase which has caused productions to decrease less than acreage.

In reviewing the phases of the peanut program it is of interest to realize that production trends continued upward prior to the war. A decrease in production was not necessarily the aim of the program but a real consideration is whether production expanded more rapidly than consumption for edible purposes. Between 1933 and 1941, acreage of peanuts harvested increased from 1.2 million acres to 1.9 million, or about 60 percent. During the same period, production increased more than 100 percent but consumption for edible purposes increased only about 40 percent.

The program followed since 1947 has resulted in a reduction in both acreage and production, but production has not declined as much as acreage has been reduced because of an increase in yield per acre. Average acres harvested during the 2 years, 1954

and 1955, was 54 percent less than the acreage harvested in 1947 and 1948. But production decreased only 43 percent. Support programs have tended to reduce the proportion of the crop that would normally go to the edible trade. The proportion of the total supply used for edible purposes was 40 percent in 1947 and 70 percent in 1954. Under normal competitive conditions it is estimated that about 80 percent of the supply is used for edible purposes.<sup>10</sup> The long-time upward trend in per capita consumption of peanuts has not continued in the postwar years. Then, too, a shift in consumption trends between uses has affected the market for some types of peanuts more than others. Relatively higher prices for peanuts have no doubt been a factor in the failure of per capita consumption to continue to increase.

Possible changes in programs to better meet present and prospective conditions in the industry continue to be of interest. Evaluation of seed changes must take into account the present organization of peanut farms, the agricultural economy of the principal peanut-producing regions, and the effects which curtailment of production have on the organization of these farms.

#### NUMBER, RESOURCES, AND CHARACTERISTICS OF SPECIALIZED PEANUT FARMS

For the crops included in the other field-crop group, there is more overlapping in peanut production areas than is true for tobacco. This made it more difficult to select subregions as representative of specialized peanut areas. To show some of the important characteristics of peanut farms and the use of resources, data are presented for subregion 21 as representative of the Virginia-North Carolina peanut area, subregion 41 for the Georgia-Alabama-Florida area, and subregion 96 as representative of the Oklahoma-Texas area.

##### Number and Use of Resources

There were 24,710 farms classified as other field-crop farms in the three subregions summarized. This number accounted for only 0.7 percent of the commercial farms listed in the 1954 Census and was only 16.3 percent of the total number of farms reporting peanuts for all purposes in 1954. The number of other field-crop farms in these areas in 1954 was 54 percent less than the 53,684 listed in 1950.

The decrease in the number of these farms in the selected peanut areas between 1950 and 1954 was due partly to an overall shift in total number of farms of 19 percent, a small increase of acres in cotton to acres in peanuts, and a lower-than-normal yield for peanuts. In 1949, the ratio of acres in cotton to acres in peanuts was 0.7 to 1, but was 0.8 to 1 in 1954. Yields of peanuts were especially low in the Oklahoma-Texas and the Georgia-Alabama-Florida areas, which therefore had reduced cash income from peanuts. As a result of the last two factors, on farms where both peanuts and cotton were grown, a number of farms were classified as cotton farms in the 1954 Census whereas they may have been classified as peanut farms in 1950.

The production of peanuts on the specialized farms in the three subregions summarized was 395 million pounds in 1954 (see Table 35). This amount was only 61 percent of the total production on all commercial farms in these areas. For the United States, the production on these farms was 46 percent of the production on all commercial farms and 45 percent of the total production in that year.

Peanuts are one of the minor cash enterprises from the standpoint of the agriculture of the United States as a whole. A large share of the production is on commercial farms that are not classified as specialized peanut farms. The proportion of the total agricultural resources used by specialized peanut producers is small. In 1954, of the total for all commercial farms specialized

<sup>10</sup> Freund, Rudolf, "What is Wrong With the Peanut Market," unpublished manuscript, North Carolina Agricultural Experiment Station.

TABLE 35.—NUMBER OF FARMS AND RESOURCES FOR ALL COMMERCIAL FARMS AND OTHER FIELD-CROP FARMS IN THE UNITED STATES AND IN SELECTED PEANUT SUBREGIONS: 1954

Item	United States		Total selected regions		Subregion 21 (Virginia-North Carolina)		Subregion 41 (Georgia-Alabama-Florida)		Subregion 96 (Oklahoma-Texas)	
	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms	All commercial farms	Other field-crop farms
Total farms..... number.....	3,327,889	367,733	88,892	24,710	21,912	15,178	42,852	8,138	24,128	1,394
All land in farms.....thousand acres.....	1,032,493	33,685	21,574	2,895	2,336	1,262	8,508	1,337	10,730	296
Total cropland.....do.....	431,585	17,593	7,500	1,428	963	566	3,718	687	2,819	145
Production of peanuts.....million pounds.....	852	499	651	395	310	246	392	129	39	20
Peanuts sold.....million dollars.....	109	58	77	48	40	32	32	13	5	3
Other crops sold.....do.....	11,856	1,406	192	52	52	39	85	13	25	(Z)
All livestock and livestock products sold.....do.....	12,223	126	143	10	18	6	39	3	86	1
Forestry products sold.....do.....	120	1	5	(Z)	1	(Z)	1	(Z)	(Z)	(Z)
All farm products sold.....do.....	24,299	1,597	387	110	111	77	160	29	116	4
Total capital.....do.....	110,545	4,986	1,786	318	349	206	593	90	844	22
Man-equivalent of labor.....number.....	4,891,965	556,898	127,012	37,232	34,326	23,946	59,094	11,406	33,598	1,880

Z Less than 0.5.

TABLE 36.—PROPORTION THAT NUMBER OF FARMS, RESOURCES USED, AND GROSS SALES ON COMMERCIAL FARMS IN SPECIFIED PEANUT AREAS WERE OF THE TOTAL FOR ALL COMMERCIAL FARMS IN THE UNITED STATES: 1954

Item	Number of farms	All land in farms (thousand acres)	Acres of cropland (thousands)	Total capital invested (million dollars)	Man-equivalent of labor (number)	All farm products sold (million dollars)	Peanuts sold (million dollars)	Production of peanuts (million pounds)
United States.....	3,327,889	1,032,493	431,585	110,545	4,891,965	24,299	100	852
Percent of United States total								
United States:								
All commercial farms.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other field-crop farms.....	11.1	3.3	4.1	1.5	11.4	6.6	5.3	58.6
Other commercial farms.....	88.9	96.7	95.9	98.5	88.6	93.4	11.7	41.4
Total, three areas:								
All commercial farms.....	2.8	2.0	1.8	1.6	2.6	1.7	76.9	76.4
Other field-crop farms.....	.7	.2	.3	.3	.7	.4	48.0	46.3
Other commercial farms.....	2.1	1.8	1.5	1.3	1.9	1.3	28.9	30.1
Virginia-North Carolina (subregion 21):								
All commercial farms.....	.7	.2	.2	.3	.7	.5	40.2	36.4
Other field-crop farms.....	.5	1.1	.1	.2	.5	.3	31.9	28.9
Other commercial farms.....	2	1	1	1	2	2	8.3	7.5
Georgia-Alabama-Florida (subregion 41):								
All commercial farms.....	1.4	.8	.9	.5	1.2	.7	31.7	35.4
Other field-crop farms.....	2	1	2	1	2	1	13.5	15.1
Other commercial farms.....	1.2	.7	.7	.4	1.0	.6	18.2	20.3
Oklahoma-Texas (subregion 96):								
All commercial farms.....	(Z)	1.0	(Z)	8	(Z)	5	5.0	4.6
Other field-crop farms.....	(Z)	(Z)	(Z)	5	(Z)	7	2.6	2.3
Other commercial farms.....	.7	1.0	7	8	7	5	2.4	2.3

Z 0.05 percent or less.

peanut farms in the areas summarized used 0.7 percent of all labor resources, 0.3 percent of the total capital employed, and 0.3 percent of the cropland (see Table 36). They had 0.4 percent of the gross farm income.

Table 37 gives a comparison on a per-farm basis of specialized peanut farms with all commercial farms in the United States and other commercial farms in the peanut areas. Specialized peanut farms are operated fairly intensively. They have less cropland per farm, employ less capital and have a smaller gross income than all commercial farms in the United States. However, the amount of labor per farm is about the same as on all commercial farms.

There are distinct differences in specialized peanut farms in the three production areas. Farms in the Virginia-North Carolina area have the smallest number of acres of cropland but they have higher average receipts from the sale of peanuts and also a higher gross income than farms in the other two areas. From the standpoint of acres of cropland, average capital and gross receipts, specialized peanut farms in the Virginia-North Carolina and the Georgia-Alabama-Florida area do not vary too much from other commercial farms. In the Oklahoma-Texas area, other commercial farms operated about 30 percent more cropland,

TABLE 37.—NUMBER OF COMMERCIAL FARMS AND SPECIFIED CHARACTERISTICS PER FARM FOR THE UNITED STATES AND FOR SELECTED PEANUT SUBREGIONS: 1954

Item	United States, all commercial farms	Subregion 21 (Virginia-North Carolina)		Subregion 41 (Georgia-Alabama-Florida)		Subregion 96 (Oklahoma-Texas)	
		Other field-crop farms	Commercial farms	Other field-crop farms	Commercial farms	Other field-crop farms	Commercial farms
Number of farms.....	3,327,889	15,178	6,734	8,138	34,714	1,394	22,734
Specified characteristics per farm							
Land in farms.....acres.....	310	83	160	164	206	213	459
Total cropland.....acres.....	130	39	55	84	89	104	130
All farm products sold.....dollars.....	7,302	5,101	4,950	3,547	3,789	2,700	4,941
Peanuts sold.....dollars.....	30	2,090	1,234	1,654	526	1,839	106
Man-equivalent of labor.....number.....	1.47	1.58	1.54	1.40	1.67	1.35	1.40
Investment in—							
Land and buildings.....dollars.....	25,437	8,168	10,560	6,121	7,561	9,805	23,904
Livestock.....dollars.....	3,154	716	1,522	811	1,298	1,045	3,326
Machinery.....dollars.....	4,291	2,113	2,748	2,064	2,160	3,196	4,036
Total.....dollars.....	32,882	10,997	14,830	9,026	11,019	14,146	31,263

TABLE 38.—NUMBER OF COMMERCIAL FARMS IN THE UNITED STATES AND DISTRIBUTION OF OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Area	Number of farms	Percent distribution of farms by economic class					
		I	II	III	IV	V	VI
United States, all commercial farms.....	3,327,889	4.0	13.5	21.2	24.4	22.9	14.0
Virginia-North Carolina (subregion 21).....	15,178	.3	6.7	28.3	39.6	18.8	6.3
Georgia-Alabama-Florida (subregion 41).....	8,138	.7	4.4	16.4	33.9	30.7	13.9
Oklahoma-Texas (subregion 96).....	1,394	.4	1.6	9.0	23.3	40.6	25.1
Total, 3 areas.....	24,710	.5	5.6	23.3	36.8	23.9	9.9

had more than twice the capital investment and received almost twice the gross income in 1954 as specialized peanut farms. Gross income on peanut farms in this area in 1954 was probably lower than normal because of the very low yield of peanuts.

#### Distribution of Number and Selected Resources by Economic Class of Farm

From the standpoint of distribution of income, a smaller proportion of the specialized peanut farms than for all commercial farms fall in the higher income group in the United States. In 1954, only 0.5 percent of the peanut farms were in Economic Class I compared with 4 percent for all commercial farms in the United States (see Table 38). However, only 10 percent of the peanut farms were in Economic Class VI compared with 14 percent for all commercial farms. As indicated previously, the proportion of farms in the Oklahoma-Texas area in Economic Class VI in 1954 was probably higher than normal because of the low peanut yield there.

Table 39 shows how selected resources of specialized peanut

TABLE 39.—SELECTED RESOURCES ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS AND DISTRIBUTION AMONG VARIOUS ECONOMIC CLASSES OF FARMS: 1954

Item	All farms		Percent of total in various economic classes of farms					
	Unit	Total	I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)								
Number of farms.....	Number	15,178	0.3	6.7	28.3	39.6	18.8	6.3
All land in farms.....	Thousand acres	1,262	2.7	17.7	33.4	31.9	11.4	2.9
Acres of cropland.....	Thousand	596	2.2	18.3	35.0	31.4	10.9	2.2
Production of peanuts.....	Million pounds	246	2.0	22.0	36.2	29.8	8.6	1.4
Gross sales.....	Thousand dollars	77,424	2.1	18.4	39.8	31.0	7.6	1.1
Total capital.....	Million dollars	206	2.3	18.2	36.3	30.8	9.9	2.5
Man-equivalent of labor.....	Number	23,946	.8	10.4	32.2	37.3	14.9	4.4
Georgia-Alabama-Florida (subregion 41)								
Number of farms.....	Number	8,138	0.7	4.4	16.4	33.9	30.7	13.9
All land in farms.....	Thousand acres	1,337	7.1	16.2	22.2	28.7	18.0	7.8
Acres of cropland.....	Thousand	687	5.4	15.4	23.4	30.0	19.3	6.5
Production of peanuts.....	Million pounds	129	6.3	19.7	26.5	28.8	15.3	3.4
Gross sales.....	Thousand dollars	28,869	6.6	16.9	28.0	30.9	14.8	2.8
Total capital.....	Million dollars	90	6.5	14.5	25.0	31.2	17.4	5.4
Man-equivalent of labor.....	Number	11,406	5.4	9.3	19.5	31.5	24.5	9.8
Oklahoma-Texas (subregion 96)								
Number of farms.....	Number	1,394	0.4	1.6	9.0	23.3	40.6	25.1
All land in farms.....	Thousand acres	296	.7	4.4	14.9	27.7	36.8	15.5
Acres of cropland.....	Thousand	145	.7	3.3	16.5	31.0	34.3	14.1
Production of peanuts.....	Million pounds	20	4.8	8.2	22.6	28.3	27.8	8.3
Gross sales.....	Thousand dollars	3,764	4.3	7.7	22.5	30.5	27.0	8.0
Total capital.....	Million dollars	22	1.0	4.3	17.2	28.8	34.3	14.4
Man-equivalent of labor.....	Number	1,880	.8	2.0	10.2	24.0	38.1	24.9

farms are distributed among the various economic classes of farms. Farms in Classes I and II are the larger farms. In proportion to the number of farms in these classes, they operate a much larger proportion of the farmland, have more capital, produce a larger share of the peanuts, and receive a larger proportion of the gross farm income. These farms also have a larger proportion of the labor supply but the increase in labor is much less than the difference in production.

In the Virginia-North Carolina area, 7 percent of the farms are in Classes I and II but 21 percent of the peanuts are produced on these farms; in the Georgia-Alabama-Florida area, 5.1 percent of the farms that are in Classes I and II produce 25 percent of the peanuts; and in the Oklahoma-Texas area, 23.6 percent of the peanuts are produced by the 2 percent of the farms that are in Classes I and II.

#### Variation in Types of Farming in Specified Peanut Areas

For the three subregions included in this study, only in the Virginia-North Carolina area was the majority of farms classed as other field-crop farms (see Table 40). In the Georgia-Alabama-Florida region, only 19 percent of the commercial farms were classed as other field-crop farms; 44 percent were classified as cotton farms. Peanuts are grown extensively only in parts of the Oklahoma-Texas area. Only 6 percent of the farms in this area were classified as other field-crop farms compared to 49 percent classified as livestock farms other than poultry or dairy.

#### Tenure of Operator

Color of operator and percent tenancy is quite different in the various peanut regions. In the Virginia-North Carolina region in 1955, only 44 percent of the operators were white and 63 percent of all operators were classified as tenants. In the Georgia-Alabama-Florida region, 62 percent of the operators were white and 57 percent were tenants. In the one peanut subregion in the Oklahoma-Texas region for which data were summarized, all of the operators were white and 38 percent were classified as tenants.

In the two regions with nonwhite operators, the proportion of nonwhite increased as gross farm income decreased. In all regions, there was no consistent relationship between amount of gross income and farm tenancy.

TABLE 40.—NUMBER OF COMMERCIAL FARMS AND PROPORTION OF FARMS IN VARIOUS TYPE CLASSIFICATIONS IN SPECIFIED PEANUT SUBREGIONS: 1954

Type of farm	Subregion 21 (Virginia-North Carolina)	Subregion 41 (Georgia-Alabama-Florida)	Subregion 96 (Oklahoma-Texas)	Total, 3 subregions
Number of commercial farms.....	21,912	42,852	24,128	88,892
Percent of commercial farms classified as:				
Field-crop farms, other than vegetable and fruit-and-nut, total.....	78.7	64.5	20.6	56.0
Other field-crop.....	69.3	19.1	5.8	27.8
Cash-grain.....	2.7	1.3	5.3	2.7
Cotton.....	6.7	44.1	9.5	25.5
Vegetable farms.....	.2	.5	.5	.4
Fruit-and-nut farms.....	(Z)	.3	.3	.2
Dairy farms.....	.3	.8	10.6	3.3
Poultry farms.....	.5	1.2	5.0	2.1
Livestock farms other than dairy or poultry.....	7.7	12.2	48.6	21.0
General farms, total.....	12.0	19.2	14.0	16.1
Primarily crop.....	8.2	12.7	4.4	9.4
Primarily livestock.....	.2	.1	1.5	.5
Crop and livestock.....	3.6	6.4	8.1	6.2
Miscellaneous.....	.6	1.3	.4	.9
All farms.....	100.0	100.0	100.0	100.0

Z 0.05 percent or less.



PRODUCTION CONDITIONS ON PEANUT FARMS BY ECONOMIC CLASS OF FARM IN SELECTED PEANUT AREAS

Data are presented on a per-farm basis for some of the important characteristics of farms producing peanuts. It should be kept in mind that these data are subject to the same limitations as enumerated for the tobacco subregions on page 22. In these peanut subregions, there probably was more overlapping of crops included in the other field-crop classifications than was true for the tobacco subregions. As a result, the proportion of other field-crop farms that are specialized peanut farms may be lower for the peanut subregions than the proportion of such farms that were specialized tobacco farms in the tobacco subregions.

TABLE 41.—COLOR AND TENURE OF FARM OPERATORS ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Total number of operators.....	15,178	52	1,011	4,296	6,003	2,855	961
Percent of operators:							
White.....	44	81	85	50	40	32	25
Nonwhite.....	56	19	15	50	60	68	75
Owners, part owners, or managers.....	37	75	53	29	33	47	56
Croppers.....	38	12	17	44	44	29	26
Other tenants.....	25	13	30	27	23	24	18
Georgia-Alabama-Florida (subregion 41)							
Total number of operators.....	8,138	57	359	1,339	2,758	2,497	1,128
Percent of operators:							
White.....	62	100	93	82	64	50	47
Nonwhite.....	38		7	18	36	50	53
Owners, part owners, or managers.....	43	100	76	48	36	39	44
Croppers.....	31		8	27	36	32	29
Other tenants.....	26		16	25	28	28	27
Oklahoma-Texas (subregion 96)							
Total number of operators.....	1,394	6	22	126	325	565	350
Percent of operators:							
White.....	100	100	100	100	100	100	100
Nonwhite.....							
Owners, part owners, or managers.....	62	17	77	72	74	54	59
Croppers.....	1					3	1
Other tenants.....	37	83	23	28	26	43	40

**Size of farm.**—The average size of other field-crop farms was 83 acres in the Virginia-North Carolina peanut area (see Table 42). This was about half the size of similar farms in the Georgia-Alabama-Florida area and only 40 percent of the average size in the Oklahoma-Texas area. In each area approximately half of the total acres was in cropland. Both total acres and crop acres increased as the amount of gross farm income increased. The difference between number of crop acres on Classes I and VI farms was greater in the Virginia-North Carolina area than either of the other two areas.

TABLE 42.—NUMBER AND SIZE OF OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Number of farms.....	15,178	52	1,011	4,296	6,003	2,855	961
Total acres per farm.....	83	616	222	98	67	51	38
Total crop acres per farm.....	39	255	107	49	31	23	14
Percent of total acres in cropland.....	47	39	48	50	46	45	37
Georgia-Alabama-Florida (subregion 41)							
Number of farms.....	8,138	57	359	1,339	2,758	2,497	1,128
Total acres per farm.....	164	1,661	663	221	139	97	92
Total crop acres per farm.....	84	658	294	121	75	53	40
Percent of total acres in cropland.....	51	40	49	55	54	55	43
Oklahoma-Texas (subregion 96)							
Number of farms.....	1,394	6	22	126	325	565	350
Total acres per farm.....	213	386	582	351	252	193	132
Total crop acres per farm.....	104	180	218	191	139	88	59
Percent of total acres in cropland.....	49	47	37	54	55	46	45

TABLE 43.—PERCENT DISTRIBUTION, BY SIZE OF FARM, OF OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Total acres per farm	Percent distribution for each economic class of farm						
	All farms	I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Under 10 acres.....	3				2	6	20
10 to 29 acres.....	25	10	1	11	29	37	40
30 to 69 acres.....	36	10	12	43	37	34	29
70 to 139 acres.....	21		26	27	21	17	6
140 to 259 acres.....	10	10	31	13	8	5	3
260 to 499 acres.....	4		24	5	2	1	2
500 acres and over.....	1	70	6	1	1		(Z)
Total.....	100	100	100	100	100	100	100
Georgia-Alabama-Florida (subregion 41)							
Under 10 acres.....	2			(Z)	(Z)	2	7
10 to 29 acres.....	10		1		5	16	26
30 to 69 acres.....	31		1	18	35	40	30
70 to 139 acres.....	26		6	31	31	21	19
140 to 259 acres.....	17		25	28	16	12	12
260 to 499 acres.....	9	9	29	17	9	5	3
500 acres and over.....	5	91	38	6	4	1	3
Total.....	100	100	100	100	100	100	100
Oklahoma-Texas (subregion 96)							
Under 10 acres.....	1						3
10 to 29 acres.....	1					9	3
30 to 69 acres.....	6				2		10
70 to 139 acres.....	24			4	9	27	44
140 to 259 acres.....	40	83		24	46	45	31
260 to 499 acres.....	25		68	63	41	15	9
500 acres and over.....	3	17	32	9	2	3	
Total.....	100	100	100	100	100	100	100

Z 0.5 percent or less.



TABLE 46.—AVERAGE ACREAGE PER FARM FOR SPECIFIED USES OF LAND ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Use of land	Average acres per farm by economic class of farm						
	All farms	I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Cropland harvested.....	35.9	217.2	96.9	44.9	28.8	20.4	12.0
Cropland pastured.....	1.9	27.4	8.4	2.1	1.2	1.0	.5
Cropland not harvested and not pastured.....	1.4	10.7	2.1	1.6	1.1	1.4	1.2
Total cropland.....	39.2	255.3	107.4	48.6	31.1	22.8	13.7
Woodland pastured.....	4.0	30.8	12.2	5.0	2.8	2.3	1.7
Woodland not pastured.....	36.4	324.1	93.7	40.7	30.4	22.8	19.4
Improved pasture.....	.6	11.2	2.1	0.8	.4	.3	.2
Not improved pasture.....	1.0	9.7	2.4	1.2	.5	.9	.2
Other land.....	1.9	14.9	4.1	1.7	1.7	1.4	3.0
Total.....	83.1	646.0	221.9	98.0	66.9	50.5	38.2
Georgia-Alabama-Florida (subregion 41)							
Cropland harvested.....	66.1	497.8	214.6	95.5	61.7	42.0	26.2
Cropland pastured.....	8.0	85.5	42.5	12.6	5.9	3.7	2.2
Cropland not harvested and not pastured.....	10.3	74.3	36.9	12.5	7.0	7.1	11.3
Total cropland.....	84.4	657.6	294.0	120.6	74.6	52.8	39.7
Woodland pastured.....	29.3	268.2	122.2	37.9	25.1	15.6	17.5
Woodland not pastured.....	39.5	566.9	143.2	43.7	31.3	24.0	29.7
Improved pasture.....	3.3	108.8	20.6	4.7	1.6	.7	.5
Not improved pasture.....	4.9	38.3	16.1	10.1	3.8	2.0	2.4
Other land.....	2.8	21.1	7.0	4.1	2.5	1.6	2.2
Total.....	164.2	1,660.9	603.1	221.1	139.2	96.7	92.0
Oklahoma-Texas (subregion 96)							
Cropland harvested.....	78.5	161.8	170.7	151.3	104.9	65.7	41.1
Cropland pastured.....	15.8	18.3	40.5	27.7	20.6	13.1	9.7
Cropland not harvested and not pastured.....	10.0	-----	6.4	11.5	13.2	9.6	7.8
Total cropland.....	104.3	180.1	217.6	190.5	138.7	88.4	58.6
Woodland pastured.....	48.4	-----	55.2	96.9	44.9	51.6	29.4
Woodland not pastured.....	4.9	141.2	-----	4.6	10.9	2.0	2.3
Improved pasture.....	3.1	-----	7.5	3.1	3.4	3.9	1.4
Not improved pasture.....	45.6	62.5	294.6	44.2	47.1	41.3	35.5
Other land.....	6.3	2.0	7.5	11.9	7.1	5.8	4.4
Total.....	212.6	385.8	382.4	351.2	252.1	193.0	131.6

was in peanuts but slightly more than 40 percent of the cropland harvested in the Oklahoma-Texas area was used for peanuts. The proportion of cropland devoted to this crop in the Oklahoma-Texas area is probably at a maximum if soil fertility is to be maintained.

Cropping systems vary somewhat for farms in the different economic classes. In the Virginia-North Carolina area more soybeans are grown on the larger farms. In the Georgia-Alabama-Florida area, the quantity of small grain increased as size of farm increased. In the Oklahoma-Texas area, cotton was more important on the larger farms.

Variation in acres of peanuts per farm is shown in Table 48. In the Virginia-North Carolina area, 17 percent of the farms had less than 5 acres in peanuts and only 7 percent had more than 25 acres. In the Georgia-Alabama-Florida area, 5 percent of the farms had less than 5 acres but 30 percent had more than 25 acres. In the Oklahoma-Texas area only 1 percent of the farms had less than 5 acres and 70 percent had more than 25 acres. In each area, the proportion of farms in the groups of larger acreage increased as the gross income from the farms increased.

**Livestock.**—The number of livestock on farms vary considerably by peanut areas. In all areas milk cows are kept mainly to supply milk for home use. Only 29 percent of the farms in the Virginia-North Carolina and 53 percent in the Georgia-Alabama-Florida

TABLE 47.—AVERAGE ACREAGE OF SELECTED CROPS GROWN ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Crop	All farms	Average acres per farm by economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Total cropland harvested.....	35.9	217.2	96.9	44.9	28.8	20.4	12.0
Selected crops:							
Peanuts:							
Grown for all purposes.....	10.6	59.7	28.9	12.9	8.8	6.1	3.3
Harvested for picking and threshing.....	10.6	59.6	29.1	12.9	8.8	6.1	3.3
Corn for grain.....	13.8	88.8	37.8	17.2	11.0	7.6	5.3
Cotton.....	3.1	21.0	4.8	4.0	2.9	2.3	1.2
Tobacco.....	2.4	5.6	3.6	3.6	2.2	1.1	.5
Small grain for grain.....	.5	7.1	3.1	.4	.2	.3	.1
Soybeans for beans.....	2.6	16.6	9.4	3.5	1.7	1.1	.6
All hays.....	.4	8.7	1.2	.3	.3	.3	.3
Georgia-Alabama-Florida (subregion 41)							
Total cropland harvested.....	66.1	497.8	214.6	95.5	61.7	42.0	26.2
Selected crops:							
Peanuts:							
Grown for all purposes.....	21.9	148.4	78.0	30.9	20.4	13.5	9.0
Harvested for picking and threshing.....	20.0	145.2	75.2	28.1	18.4	12.2	8.0
Corn for grain.....	25.2	167.2	70.3	34.0	24.2	17.8	12.0
Cotton.....	5.7	20.6	17.7	8.9	5.9	3.6	1.7
Tobacco.....	1.2	8.3	2.0	1.9	1.4	.7	.3
Small grain for grain.....	2.2	53.1	15.1	4.6	1.0	.4	.1
Soybeans for beans.....	(Z)	.4	.2	(Z)	(Z)	(Z)	-----
All hays.....	.5	15.8	2.7	.8	.3	.1	(Z)
Oklahoma-Texas (subregion 96)							
Total cropland harvested.....	78.5	161.8	170.7	151.3	104.9	65.7	41.1
Selected crops:							
Peanuts:							
Grown for all purposes.....	43.8	56.0	69.0	90.9	60.8	36.2	21.5
Harvested for picking and threshing.....	41.5	54.3	69.6	89.2	56.3	33.5	21.5
Corn for grain.....	2.6	10.0	.5	2.6	2.3	2.3	3.2
Cotton.....	6.6	50.8	23.2	9.8	9.1	5.4	3.3
Tobacco.....	-----	-----	-----	-----	-----	-----	-----
Small grain for grain.....	4.6	1.3	9.5	13.1	6.6	3.5	1.3
Soybeans for beans.....	-----	-----	-----	-----	-----	-----	-----
All hays.....	2.7	25.3	16.8	1.1	3.0	1.9	3.0

Z 0.05 percent or less.

areas reported milk cows (see Table 49). In the Virginia-North Carolina area there are many hogs on all farms but beef cattle are found only on the larger farms. The hogs are run on the peanut fields after the nuts are harvested.

In some parts of the Georgia-Alabama-Florida area it is a common practice to "hog off" peanuts. Hogs are also grazed on peanut fields. The number of hogs per farm is slightly less than in the Virginia-North Carolina area and accordingly there are only about half as many hogs per acre of peanuts. Beef cattle are more important in the Georgia-Alabama-Florida than in the Virginia-North Carolina area but not as important as in the Oklahoma-Texas area. Hogs are not of much consequence on farms in the Oklahoma-Texas area.

The number of livestock in all areas increased as gross farm income increased but the pattern was similar except the larger farms had more beef cattle.

**Labor used.**—The labor force for peanut farms is made up mostly of the farm family. In the specialized peanut areas, hired labor was relatively unimportant in 1954 except on the Classes I and II farms (see Table 50). The amount of unpaid family labor was less and the amount of hired labor more in the Georgia-Alabama-Florida area than in either of the other two areas. The number of crop acres per man-equivalent was 25 in the Virginia-North Carolina area, but it was 77 in the Texas-Oklahoma area.

Total number of man-equivalents of labor per farm increased as size of farm increased. The increase was due mainly to an increase in hired labor.

TABLE 48.—DISTRIBUTION OF FARMS REPORTING, BY ACRES OF PEANUTS HARVESTED, FOR OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Farms reporting peanuts harvested number.....	14,517	52	996	4,245	5,768	2,615	841
Percent distribution by acres of peanuts grown alone and harvested for picking or threshing:							
Under 5 acres.....	17	1	5	15	31	68	
5 to 9 acres.....	40	10	11	34	46	50	30
10 to 24 acres.....	36	10	32	53	38	19	2
25 to 49 acres.....	6	11	43	8	1	(Z)	
50 to 99 acres.....	1	63	12	(Z)			
100 acres and over.....	(Z)	6	1				
Total.....	100	100	100	100	100	100	100
Georgia-Alabama-Florida (subregion 41)							
Farms reporting peanuts harvested number.....	7,619	52	352	1,280	2,628	2,271	1,036
Percent distribution by acres of peanuts grown alone and harvested for picking or threshing:							
Under 5 acres.....	5	1	2	4	6	12	
5 to 9 acres.....	19	6	9	14	21	48	
10 to 24 acres.....	46	2	3	31	49	62	35
25 to 49 acres.....	21	16	38	29	10	4	
50 to 99 acres.....	7	25	44	19	4	1	
100 acres and over.....	2	73	30	1	(Z)		
Total.....	100	100	100	100	100	100	100
Oklahoma-Texas (subregion 96)							
Farms reporting peanuts harvested number.....	1,349	6	22	126	315	540	340
Percent distribution by acres of peanuts grown alone and harvested for picking or threshing:							
Under 5 acres.....	1				1	1	
5 to 9 acres.....	7				2	27	
10 to 24 acres.....	22			4	3	26	40
25 to 49 acres.....	32	17	23	16	26	45	25
50 to 99 acres.....	31	83	45	32	63	26	7
100 acres and over.....	7		32	48	8		
Total.....	100	100	100	100	100	100	100

Z 0.5 percent or less.

The time spent in off-farm work varies for farm operators in the three areas. In the Virginia-North Carolina area, 76 percent of the operators reported that they did not work off the farm and the majority of those that did, reported less than 100 days. In the Oklahoma-Texas area, 44 percent of the operators reported off-farm work. The percentage of operators reporting off-farm work did not vary much by economic class of farm in the Virginia-North Carolina area. In both the Georgia-Alabama-Florida and the Oklahoma-Texas areas, the percentage of operators reporting off-farm work tended to decrease as the gross farm income increased.

**Farm mechanization and home conveniences.**—The level of mechanization is not very high on peanut farms (see Table 52). Only about half of the farms in the Virginia-North Carolina and the Georgia-Alabama-Florida areas reported tractors as compared with 87 percent in the Oklahoma-Texas area. In all areas the proportion of farms reporting trucks was less than tractors. The level of mechanization increased greatly with size of farms—most of the Class I and II farms reported one or more trucks, tractors, and grain combines.

In regard to home conveniences, electricity was available to most all farm families in each area and in each economic class. The level of other home conveniences was low: 13 percent or less

TABLE 49.—AVERAGE NUMBER OF LIVESTOCK PER FARM ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm						
		I	II	III	IV	V	VI	
Virginia-North Carolina (subregion 21)								
Horses and mules.....	64	1.2	4.1	1.6	1.4	1.1	1.0	0.9
Milk cows.....	29	.5	1.5	.9	.5	.4	.5	.2
Other cattle.....	(NA)	1.4	28.5	7.4	1.6	.7	.5	.3
All hogs and pigs.....	77	16.4	102.7	51.8	20.4	12.3	8.9	5.1
Chickens.....	77	26.9	55.1	42.9	30.7	25.5	20.8	17.9
Georgia-Alabama-Florida (subregion 41)								
Horses and mules.....	55	1.0	5.6	1.7	1.0	1.0	1.0	0.9
Milk cows.....	53	1.2	2.5	1.3	1.5	1.5	1.0	.7
Other cattle.....	(NA)	7.3	129.1	36.1	10.5	5.3	3.1	2.1
All hogs and pigs.....	72	14.8	52.0	40.4	25.2	14.5	9.3	5.6
Chickens.....	78	25.4	231.8	40.3	42.5	22.9	16.7	15.1
Oklahoma-Texas (subregion 96)								
Horses and mules.....	30	0.6	.....	0.5	0.5	0.4	0.5	0.8
Milk cows.....	74	2.2	1.2	2.1	2.7	2.5	1.9	2.0
Other cattle.....	(NA)	11.0	36.3	56.7	23.9	13.4	8.5	5.1
All hogs and pigs.....	50	4.0	1.7	6.4	11.7	4.2	3.5	1.8
Chickens.....	84	48.5	266.7	313.9	53.1	49.6	47.4	27.2

NA Not available.

of all farms reported telephones, 28 percent or less reported television sets, and 24 percent or less reported home freezers. In the Oklahoma-Texas area 57 percent reported piped running water as compared with only 32 percent in the Virginia-North Carolina area.

The level of home conveniences increased with the economic class of the farm. Farms in the low-income groups did not have enough income to meet the necessities of life and to provide home conveniences as well.

Fertilizer was reported as being used on 97 percent of the farms in each of the Virginia-North Carolina and the Georgia-Alabama-Florida areas but on only 76 percent of the farms in the Oklahoma-Texas area (see Table 53). The average amount of fertilizer

TABLE 50.—SOURCE OF LABOR ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Man-equivalent per farm:							
Operator.....	0.89	0.77	0.91	0.93	0.91	0.83	0.84
Unpaid family labor.....	.44	.52	.33	.56	.43	.34	.23
Hired labor.....	.25	2.31	1.24	.31	.15	.08	.03
Total.....	1.58	3.60	2.48	1.80	1.49	1.25	1.10
Georgia-Alabama-Florida (subregion 41)							
Man-equivalent per farm:							
Operator.....	0.88	0.90	0.93	0.90	0.91	0.85	0.86
Unpaid family labor.....	.17	.19	.07	.21	.19	.17	.09
Hired labor.....	.35	9.55	1.97	.55	.20	.10	.04
Total.....	1.40	10.65	2.97	1.66	1.30	1.12	.99
Oklahoma-Texas (subregion 96)							
Man-equivalent per farm:							
Operator.....	0.86	1.00	0.95	0.89	0.86	0.81	0.89
Unpaid family labor.....	.43	.50	.45	.45	.44	.43	.43
Hired labor.....	.06	1.00	.33	.18	.08	.03	.02
Total.....	1.35	2.50	1.73	1.52	1.38	1.27	1.34

TABLE 51.—WORK OFF FARMS BY FARM OPERATORS OF OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Percent of operators reporting for each economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Days of work off farm:							
None.....	76	69	85	79	78	66	75
1 to 99 days.....	18	10	9	19	18	20	25
100 to 199 days.....	2	—	1	1	2	6	—
200 days or more.....	3	10	5	1	2	7	—
Not reporting.....	1	11	—	—	—	1	—
Total.....	100	100	100	100	100	100	100
Georgia-Alabama-Florida (subregion 41)							
Days of work off farm:							
None.....	70	83	79	73	72	64	75
1 to 99 days.....	23	5	14	20	22	27	25
100 to 199 days.....	3	—	2	3	2	5	—
200 days or more.....	4	12	5	4	4	4	—
Total.....	100	100	100	100	100	100	100
Oklahoma-Texas (subregion 96)							
Days of work off farm:							
None.....	56	100	73	56	57	54	57
1 to 99 days.....	34	—	22	40	31	30	43
100 to 199 days.....	6	—	5	—	8	9	—
200 days or more.....	4	—	—	4	4	7	—
Total.....	100	100	100	100	100	100	100

used per acre on crops on which applied was 640 pounds in the Virginia-North Carolina area, 380 pounds in the Georgia-Alabama-Florida area, but only 120 pounds in the Oklahoma-Texas area. Practically no liming material was used on farms in the Oklahoma-Texas area. In the Virginia-North Carolina area, lime was reported as being used on 20 percent of the farms and on 10 percent of the farms in the Georgia-Alabama-Florida area.

TABLE 52.—SPECIFIED FACILITIES AND EQUIPMENT FOR FARMS AND HOMES ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Number per farm:							
Automobiles.....	0.8	1.8	1.2	0.9	0.7	0.6	0.5
Motortrucks.....	0.3	1.2	0.8	0.9	0.3	0.3	0.2
Tractors.....	0.7	3.6	1.9	0.8	0.6	0.5	0.3
Grain combines.....	0.1	0.6	0.3	0.1	(Z)	(Z)	(Z)
Percent of farms reporting:							
Automobiles.....	68	88	88	76	66	57	48
Motortrucks.....	32	60	71	38	28	25	15
Tractors.....	52	79	89	63	48	40	24
Grain combines.....	6	50	26	8	3	4	(Z)
Telephone.....	10	58	38	11	7	1	5
Electricity.....	91	100	99	96	91	85	76
Television.....	28	73	65	33	24	18	12
Piped running water.....	32	65	75	38	28	21	12
Home freezer.....	24	63	60	28	21	15	9
Georgia-Alabama-Florida (subregion 41)							
Number per farm:							
Automobiles.....	0.6	3.2	1.2	0.7	0.6	0.5	0.3
Motortrucks.....	0.5	3.7	1.3	0.8	0.5	0.4	0.3
Tractors.....	0.7	4.8	2.3	1.1	0.7	0.4	0.2
Grain combines.....	0.1	0.8	0.4	0.1	0.1	(Z)	(Z)
Percent of farms reporting:							
Automobiles.....	52	96	81	63	52	50	33
Motortrucks.....	48	96	90	70	50	37	27
Tractors.....	49	100	91	75	55	37	18
Grain combines.....	6	74	34	10	5	1	1
Telephone.....	10	63	31	12	11	6	4
Electricity.....	86	100	100	97	91	77	74
Television.....	8	19	34	9	9	5	3
Piped running water.....	45	100	88	69	46	33	26
Home freezer.....	20	61	55	32	21	14	8

TABLE 53.—SPECIFIED FACILITIES AND EQUIPMENT FOR FARMS AND HOMES ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954—Continued

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Oklahoma-Texas (subregion 96)							
Number per farm:							
Automobiles.....	0.7	1.0	0.3	0.8	0.7	0.7	0.6
Motortrucks.....	0.5	1.0	0.8	0.9	0.7	0.4	0.3
Tractors.....	1.1	2.2	1.6	1.7	1.3	1.0	0.7
Grain combines.....	0.3	0.8	0.3	0.8	0.5	0.2	0.1
Percent of farms reporting:							
Automobiles.....	66	100	27	72	66	70	59
Motortrucks.....	49	100	77	80	68	39	34
Tractors.....	87	100	100	100	100	88	67
Grain combines.....	27	83	32	68	46	18	7
Telephone.....	13	—	9	24	10	12	14
Electricity.....	94	100	77	92	95	96	96
Television.....	16	17	9	44	14	14	10
Piped running water.....	57	—	77	84	71	64	23
Home freezer.....	17	17	32	28	25	13	10

Z 0.05 percent or less.

TABLE 53.—USE OF COMMERCIAL FERTILIZER AND LIMING MATERIALS ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Fertilizer and fertilizing materials:							
Percent of farms using.....	97	98	97	98	97	95	96
Tons per farm reporting.....	10	64	31	13	8	6	3
Acres on which applied per farm.....	32	214	87	39	25	18	11
Pounds used per acre.....	640	600	720	640	620	600	560
Lime and liming materials:							
Percent of farms using.....	16	21	21	17	15	15	14
Tons per farm reporting.....	6	41	17	7	4	4	2
Acres on which applied per farm.....	11	69	20	13	8	7	5
Pounds used per acre.....	1,158	1,184	1,706	1,062	985	1,199	886
Georgia-Alabama-Florida (subregion 41)							
Fertilizer and fertilizing materials:							
Percent of farms using.....	97	100	97	97	97	97	96
Tons per farm reporting.....	13	123	42	20	12	7	5
Acres on which applied per farm.....	67	543	208	100	61	42	26
Pounds used per acre.....	388	455	400	410	389	337	353
Lime and liming materials:							
Percent of farms using.....	10	37	23	22	9	6	2
Tons per farm reporting.....	18	83	33	19	12	10	16
Acres on which applied per farm.....	28	135	47	27	20	17	21
Pounds used per acre.....	1,308	1,238	1,391	1,406	1,190	1,175	1,458
Oklahoma-Texas (subregion 96)							
Fertilizer and fertilizing materials:							
Percent of farms using.....	76	100	77	88	91	76	57
Tons per farm reporting.....	4	6	9	7	5	3	2
Acres on which applied per farm.....	68	108	137	132	82	55	33
Pounds used per acre.....	124	108	124	114	123	124	146
Lime and liming materials:							
Percent of farms using.....	1	—	—	—	2	1	—
Tons per farm reporting.....	14	—	—	—	25	2	—
Acres on which applied per farm.....	22	—	—	—	24	20	—
Pounds used per acre.....	1,227	—	—	—	2,083	200	—

Capital investment.—The average capital investment of specialized peanut farms is low compared to many types of commercial agriculture in the United States. Farms in the Oklahoma-Texas area with an investment of \$16,262 had the highest investment; farms in the Georgia-Alabama-Florida area with an investment of \$10,290 was the lowest (see Table 55). In each area, 70 percent or more of the total investment was in land and buildings. In the Virginia-North Carolina area about 16 percent of the investment was in machinery compared to about 20 percent in the other two areas.

TABLE 54.—CAPITAL INVESTMENT ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Investment per farm (dollars):							
Land and buildings.....	9,962	68,702	27,797	13,000	7,863	5,003	3,805
Livestock.....	716	5,498	2,159	859	539	425	274
Machinery.....	2,113	9,288	5,081	2,512	1,767	1,466	904
Total.....	12,791	83,488	35,037	16,371	10,169	6,894	4,983
Georgia-Alabama-Florida (subregion 41)							
Investment per farm (dollars):							
Land and buildings.....	7,385	85,371	25,403	11,133	7,249	4,372	3,318
Livestock.....	841	8,195	2,937	1,260	747	483	325
Machinery.....	2,064	14,336	6,156	2,976	1,995	1,364	780
Total.....	10,290	107,902	34,496	15,369	9,991	6,219	4,423
Oklahoma-Texas (subregion 96)							
Investment per farm (dollars):							
Land and buildings.....	11,721	16,380	34,939	22,152	13,963	9,889	6,312
Livestock.....	1,045	2,770	4,384	2,139	1,241	831	574
Machinery.....	3,496	7,929	4,884	6,069	4,477	3,119	2,105
Total.....	16,262	27,079	44,207	30,360	19,681	13,839	8,991

In each area the amount of the investment increased as amount of gross sales increased. The average investment on Class II farms was 5 to 9 times the average investment on Class VI farms. However, the proportion of the total investment in various categories of farm capital did not change a great deal as the amount of capital investment increased. The average investment for farms in the same economic class varied substantially between the different peanut areas.

**Production expense.**—Items of specified farm expenditures for farms in the peanut areas are given in Table 55. Expenditures per farm averaged \$1,500 in the Georgia-Alabama-Florida area compared with \$1,374 in the Virginia-North Carolina area, and only \$964 in the Oklahoma-Texas area. On a per crop-acre basis, expenditures of \$30.70 in the Virginia-North Carolina area were almost double the amount in the Georgia-Alabama-Florida area and more than four times that in the Oklahoma-Texas area. The main factors accounting for the differences were the amounts spent for hired labor and for fertilizer and lime.

In each area, the amount of specified expense per crop acre increased as gross income increased. In the Virginia-North Carolina area, expenses that showed the largest increase were hired labor and fertilizer and lime. In the Georgia-Alabama-Florida area, hired labor, gasoline and oil, and fertilizer and lime increased as gross income increased. In the Texas-Oklahoma area, hired labor and gasoline and oil were the expenses that increased most with the increase in size of farm operation.

#### INCOME AND EFFICIENCY LEVELS

**Source of farm income.**—In both the Virginia-North Carolina and the Georgia-Alabama-Florida peanut areas, tobacco was grown on a number of farms. Generally, peanuts were the major

TABLE 55.—SPECIFIED FARM EXPENDITURES ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item of expense	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Amount per farm (dollars):							
Machine hire.....	117	353	200	155	102	80	48
Hired labor.....	366	3,333	1,780	451	215	110	50
Feed for livestock and poultry.....	171	1,361	631	244	96	78	47
Gasoline and other petroleum fuel and oil.....	229	1,162	741	302	173	100	48
Commercial fertilizer and fertilizing materials.....	482	3,173	1,407	615	373	253	131
Lime and liming materials.....	9	67	26	10	7	6	2
Total.....	1,374	9,449	4,785	1,777	966	627	326
Amount per crop acre (dollars):							
Machine hire.....	2.97	1.38	1.86	3.19	3.27	3.50	3.47
Hired labor.....	9.33	13.06	16.57	9.27	6.90	4.84	3.61
Gasoline and other petroleum fuel and oil.....	5.84	4.55	6.90	6.21	5.57	4.38	3.60
Fertilizer and lime.....	12.51	12.69	13.33	12.86	12.22	11.36	9.67
Total.....	30.65	31.68	38.66	31.53	27.96	24.08	20.25
Georgia-Alabama-Florida (subregion 41)							
Amount per farm (dollars):							
Machine hire.....	160	503	305	274	161	114	57
Hired labor.....	390	10,733	2,210	613	222	112	51
Feed for livestock and poultry.....	135	1,916	826	301	77	55	46
Gasoline and other petroleum fuel and oil.....	272	3,265	1,253	451	225	116	55
Commercial fertilizer and fertilizing materials.....	531	6,303	1,708	845	480	276	179
Lime and liming materials.....	12	192	53	27	7	4	2
Total.....	1,500	22,912	6,055	2,511	1,172	677	390
Amount per crop acre (dollars):							
Machine hire.....	1.89	0.76	1.04	2.27	2.16	2.16	1.45
Hired labor.....	4.62	16.32	7.52	5.08	2.98	2.12	1.28
Gasoline and other petroleum fuel and oil.....	3.22	4.97	4.26	3.74	3.01	2.20	1.38
Fertilizer and lime.....	6.43	9.88	5.99	7.23	6.53	5.31	4.57
Total.....	16.16	31.93	18.81	18.32	14.68	11.79	8.68
Oklahoma-Texas (subregion 96)							
Amount per farm (dollars):							
Machine hire.....	179	341	246	232	173	106	
Hired labor.....	115	1,917	548	325	157	58	37
Feed for livestock and poultry.....	230	1,167	1,004	540	290	162	109
Gasoline and other petroleum fuel and oil.....	271	783	631	568	359	228	119
Commercial fertilizer and fertilizing materials.....	169	323	439	329	256	135	65
Lime and liming materials.....	(Z)				1	(Z)	
Total.....	964	4,190	2,963	2,008	1,295	756	436
Amount per crop acre (dollars):							
Machine hire.....	1.71	1.57	1.29	1.67	1.96	1.80	
Hired labor.....	1.11	10.64	2.52	1.71	1.13	.65	.63
Gasoline and other petroleum fuel and oil.....	2.59	4.35	2.90	2.98	2.58	2.58	2.04
Fertilizer and lime.....	1.62	1.79	2.02	1.73	1.86	1.53	1.11
Total.....	7.03	16.78	9.01	7.71	7.24	6.72	5.58

Z \$0.50 or less.

enterprise. But, on a considerable number of these farms tobacco was more important. These farms were included in the other field-crop group. In this analysis there was no way to separate tobacco from peanut farms. Although peanuts were the major

TABLE 56.—SOURCE OF FARM INCOME OF OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Sales per farm (dollars):							
Peanuts.....	2,098	12,374	6,932	2,683	1,580	957	478
Cotton.....	466	2,350	824	619	419	288	125
Tobacco.....	1,753	9,200	2,966	2,810	1,527	589	213
Other field crops.....	328	2,451	1,236	474	213	88	40
Vegetables.....	21	102	116	25	9	10	2
Fruits and nuts.....	1	18	3	1	1	1	-----
Horticultural specialties.....	1	-----	15	-----	(Z)	-----	-----
Total crops.....	4,668	26,495	12,092	6,612	3,749	1,933	858
Dairy products.....	4	9	1	11	1	1	(Z)
Poultry and poultry products.....	15	39	38	17	14	8	9
Cattle and calves.....	38	815	240	38	15	10	4
Hogs.....	362	4,005	1,669	475	207	103	47
Other livestock and livestock products.....	2	-----	5	3	(Z)	1	-----
Total livestock.....	421	4,868	1,953	544	237	123	60
Forest products sold.....	12	190	53	8	8	8	2
Gross sales.....	5,101	31,553	14,098	7,164	3,994	2,064	920
Percent of gross sales from peanuts.....	41	39	49	38	40	46	57
Gross sales per acre of cropland dollars.....	130	124	131	147	128	90	62
Georgia-Alabama-Florida (subregion 41)							
Sales per farm (dollars):							
Peanuts.....	1,655	14,730	7,356	2,662	1,410	831	404
Cotton.....	636	3,078	2,418	1,125	659	338	112
Tobacco.....	563	5,346	1,116	1,021	625	279	79
Other field crops.....	176	2,420	776	335	135	67	26
Vegetables.....	54	730	117	106	51	25	9
Fruits and nuts.....	9	195	31	12	7	4	6
Horticultural specialties.....	-----	-----	-----	-----	-----	-----	-----
Total crops.....	3,113	26,499	11,814	5,261	2,887	1,544	636
Dairy products.....	10	111	(Z)	1	24	2	(Z)
Poultry and poultry products.....	23	435	58	60	15	5	3
Cattle and calves.....	125	4,181	671	166	77	35	12
Hogs.....	249	1,046	950	525	215	115	52
Other livestock and livestock products.....	1	-----	4	1	1	(Z)	(Z)
Total livestock.....	408	5,773	1,683	753	332	157	67
Forest products sold.....	26	1,268	83	29	15	8	8
Gross sales.....	3,547	33,540	13,580	6,043	3,234	1,709	711
Percent of gross sales from peanuts.....	47	44	54	44	44	49	57
Gross sales per acre of cropland dollars.....	42	51	46	50	43	32	18
Oklahoma-Texas (subregion 96)							
Sales per farm (dollars):							
Peanuts.....	1,838	19,819	9,330	4,542	2,230	1,268	644
Cotton.....	259	2,417	1,267	553	409	153	86
Tobacco.....	-----	-----	-----	-----	-----	-----	-----
Other field crops.....	88	2,931	30	379	66	52	18
Vegetables.....	44	-----	59	75	109	24	4
Fruits and nuts.....	20	-----	63	37	43	10	6
Horticultural specialties.....	-----	-----	-----	-----	-----	-----	-----
Total crops.....	2,249	25,167	10,749	5,586	2,857	1,507	758
Dairy products.....	11	-----	-----	41	16	5	4
Poultry and poultry products.....	69	250	593	102	91	58	17
Cattle and calves.....	261	1,338	1,524	551	403	178	60
Hogs.....	97	50	183	397	135	52	20
Other livestock and livestock products.....	13	-----	100	37	29	1	5
Total livestock.....	451	1,638	2,400	1,128	674	294	106
Forest products.....	-----	-----	-----	-----	-----	-----	-----
Gross sales.....	2,700	26,805	13,149	6,714	3,531	1,801	864
Percent of gross sales from peanuts.....	68	74	71	68	63	70	74
Gross sales per acre of cropland dollars.....	26	149	60	35	25	20	15

source of income on the majority of farms in these two areas, they contributed from about 40 to 50 percent of the average gross income on most groups of farms.

In the Virginia-North Carolina area, average gross sales from specified products were \$5,101; of this amount peanuts contributed 41 percent and tobacco 34 percent (see Table 56). Only about 8 percent of the gross sales were from livestock or livestock products. However, the relative importance of livestock increased with the increase in size of farm. Gross sales per crop acre also increased with the size of farm; but farms in Class III had the largest gross sales per acre. On these Class III farms, the average income from tobacco was slightly more than the income from peanuts.

In the Georgia-Alabama-Florida area, average gross sales were \$3,547 per farm or only 70 percent as much as gross sales per farm in the Virginia-North Carolina area. A little over half of the gross income on these farms came from peanuts. Tobacco was of less importance and cotton of more importance in this area than in the Virginia-North Carolina area. Income from livestock and livestock products accounted for about 12 percent of the gross income. The relative importance of livestock increased with size of farm. Beef cattle were important mainly on Classes I and II farms. Gross sales per crop acre increased with size of farm being only \$18 per acre on Class VI farms and \$46 on Class II farms. Average gross sales per acre in this area were only one-third as much as in the Virginia-North Carolina area but about 60 percent more than gross sales per acre in the Oklahoma-Texas area.

Farms in the Oklahoma-Texas area were more specialized than in either of the other two peanut areas. On the average, peanuts contributed 68 percent of the gross income, cotton 10 percent and livestock 17 percent. Beef cattle were more important than hogs on peanut farms in this area. The percent of gross sales from peanuts did not change very much with size of farm.

Gross income above specified expenses.—The amount that gross income exceeded specified expenses averaged \$3,727 per farm in the Virginia-North Carolina area, \$2,047 in the Georgia-Alabama-Florida area, and \$1,736 in the Oklahoma-Texas area (see Table 57). The net above specified expenses increased as the amount of gross sales increased. It will be noticed that approximately one-third of the peanut farms classified as V and VI had incomes above specified expenses averaging under \$1,500. For each economic class of farm, the net above specified expenses was less in the Georgia-Alabama-Florida area than in either of the other two areas.

TABLE 57.—GROSS INCOME OF OPERATOR AND FAMILY ABOVE SPECIFIED EXPENSES ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Amount per farm (dollars):							
Gross sales.....	5,101	31,553	14,098	7,164	3,994	2,064	920
Specified expenses.....	1,374	9,449	4,785	1,777	966	627	326
Gross sales minus specified expenses.....	3,727	22,104	9,313	5,387	3,028	1,437	594
Georgia-Alabama-Florida (subregion 41)							
Amount per farm (dollars):							
Gross sales.....	3,547	33,540	13,580	6,043	3,234	1,709	711
Specified expenses.....	1,500	22,912	6,055	2,511	1,172	677	390
Gross sales minus specified expenses.....	2,047	10,628	7,525	3,532	2,062	1,032	321
Oklahoma-Texas (subregion 96)							
Amount per farm (dollars):							
Gross sales.....	2,700	26,805	13,149	6,714	3,531	1,801	864
Specified expenses.....	964	4,190	2,963	2,008	1,295	756	436
Gross sales minus specified expenses.....	1,736	22,615	10,186	4,706	2,236	1,045	428

Z 50 cents or less.

These data do not measure net income. The specified expenditures do not include any fixed costs, nor all operating costs.

**Efficiency levels of farm operation.**—Various data on size of farm, capital investment, amount of labor, gross sales and specified expenses, although inadequate for a complete analysis, provide information on the differences in efficiency of farm operation for peanut farms in various areas and also for different size of farms. Both gross sales and gross sales minus specified expenses per man-equivalent were higher in the Virginia-North Carolina area than in either of the other two peanut areas (see Table 58). There was not a great deal of difference in investment per man-equivalent in the Virginia-North Carolina and Georgia-Alabama-Florida areas; the investment in the Oklahoma-Texas area was about 50 percent more than in either of these two areas.

The investment per crop acre was more than twice as much in the Virginia-North Carolina area as in either of the other two areas. On the other hand crop acres per man-equivalent was only one-third as great in the Virginia-North Carolina area as in the Oklahoma-Texas area. Average yield of peanuts per acre in the Virginia-North Carolina area was almost twice the yield in the Georgia-Alabama-Florida area and more than four times the yield in the Oklahoma-Texas area. As indicated before, yield of peanuts in the Oklahoma-Texas area was especially low in 1954. Low yields reduced average income per farm and also the relative efficiency of farms for this area.

In each of the peanut areas, as the gross farm income increased the investment per man-equivalent increased. This same relationship existed for crop acres per man-equivalent. This means that on the larger farms more capital was associated with a unit of labor. A unit of labor was also able to handle a larger unit of

TABLE 58.—SELECTED MEASURES OF EFFICIENCY ON OTHER FIELD-CROP FARMS IN SPECIFIED PEANUT SUBREGIONS, BY ECONOMIC CLASS OF FARM: 1954

Item	All farms	Economic class of farm					
		I	II	III	IV	V	VI
Virginia-North Carolina (subregion 21)							
Gross sales per man-equivalent...dollars...	3,228	8,765	5,685	3,980	2,681	1,651	836
Net sales per man-equivalent...dollars...	2,359	6,140	3,755	2,993	2,032	1,149	542
Gross sales per \$1,000 invested...dollars...	464	553	493	504	452	350	216
Investment per \$100 of gross sales...dollars...	216	181	203	198	221	285	464
Total investment per man-equivalent...dollars...	6,971	15,868	11,553	7,908	5,951	4,730	3,868
Investment per crop acre...dollars...	280	224	266	292	284	258	311
Crop acres per man-equivalent.....	25	71	43	27	21	18	12
Pounds of peanuts per acre.....	1,521	1,601	1,853	1,599	1,383	1,203	1,097
Georgia-Alabama-Florida (subregion 41)							
Gross sales per man-equivalent...dollars...	2,534	3,149	4,588	3,640	2,488	1,512	718
Net sales per man-equivalent...dollars...	1,463	998	2,542	2,128	1,586	913	324
Gross sales per \$1,000 invested...dollars...	393	486	518	466	367	303	182
Investment per \$100 of gross sales...dollars...	254	206	193	214	272	330	550
Total investment per man-equivalent...dollars...	6,440	6,476	8,862	7,805	6,781	5,005	3,929
Investment per crop acre...dollars...	107	105	89	107	118	108	99
Crop acres per man-equivalent.....	60	62	99	73	57	47	40
Pounds of peanuts per acre.....	793	979	944	912	736	650	483
Oklahoma-Texas (subregion 96)							
Gross sales per man-equivalent...dollars...	2,000	10,722	7,599	4,416	2,558	1,418	646
Net sales per man-equivalent...dollars...	1,286	9,046	5,887	3,095	1,620	823	320
Gross sales per \$1,000 invested...dollars...	187	1,102	298	242	197	144	116
Investment per \$100 of gross sales...dollars...	535	91	336	412	509	695	862
Total investment per man-equivalent...dollars...	10,711	9,740	25,593	18,193	12,972	9,871	5,578
Investment per crop acre...dollars...	138	135	203	146	129	142	127
Crop acres per man-equivalent.....	77	72	126	125	100	70	44
Pounds of peanuts per acre.....	354	3,013	1,100	413	316	301	226

production. Both labor and capital were used more efficiently on the larger farms. The capital investment per \$100 of sales was less than half on the large farms as on the small farms. Both gross sales and net sales per man-equivalent were much greater on the large farms than on the small farms.

#### SUMMARY AND PROBLEMS

Specialized peanut farms vary considerably in volume of business and size in the various production areas. There are fewer small peanut farms than tobacco farms. About 25 percent in the Virginia-North Carolina region, 45 percent in the Georgia-Alabama-Florida region, and 66 percent in Oklahoma and Texas were Classes V and VI farms. These farms had sales of less than \$2,500 in 1954. About 35 percent of the farms in Virginia-North Carolina were in Classes I, II, and III having sales of over \$5,000 in 1954. In Georgia-Alabama-Florida area only 22 percent had sales of \$5,000 or more.

In the Virginia-North Carolina area the average size of farm in 1954 was 83 acres compared to 164 acres in the Georgia-Alabama-Florida area and 213 acres in the Oklahoma-Texas area. In each area about half of the total land area was in cropland.

In the Virginia-North Carolina area in 1954, 17 percent of the farmers had less than 5 acres of peanuts and only 7 percent had more than 25 acres. In the Georgia-Alabama-Florida area, 5 percent of the farmers had less than 5 acres, and 30 percent had more than 25 acres. In the Oklahoma-Texas area, only 1 percent of the farmers had less than 5 acres in peanuts, and 70 percent had more than 25 acres.

Peanut farms are diversified. Although peanuts were the main source of income on the majority of the farms in the two areas, they contributed less than 50 percent of the average gross income on most groups of farms. Peanut farms tend to be operated intensively with a high percentage of the cropland in row crops. Corn is the most important crop acreage-wise in the Virginia-North Carolina and the Georgia-Alabama-Florida areas.

In both the Virginia-North Carolina and Georgia-Alabama-Florida peanut areas, tobacco was grown on a number of farms. On some farms, tobacco contributed more than 50 percent of the gross income so these farms were included in the other field-crop group. In this analysis there was no way to separate tobacco from peanut farms in these areas.

Cotton is important in all of the areas. About one-fourth of the harvested cropland in the Virginia-North Carolina and Georgia-Alabama-Florida areas is devoted to peanuts compared to slightly more than 55 percent in the Oklahoma-Texas area.

Hogs are an important enterprise on peanut farms in the Virginia-North Carolina and Georgia-Alabama-Florida areas, but not on farms in the Oklahoma-Texas area. Beef cattle are important on most of the farms in Oklahoma-Texas area. They tend to be important only on the larger farms in the other two areas.

With the exception of the larger farms, the labor force on peanut farms is made up mostly of family labor. The proportion of operators working off farms varies by areas. Of the peanut farmers working off the farm the majority worked less than 100 days per year.

Color of operator and percent tenancy also vary by areas. In the Virginia-North Carolina area in 1955, only 44 percent of the operators were white and 63 percent of all operators were classified as tenants. In the Georgia-Alabama-Florida area, 62 percent of the operators were white and 57 percent were tenants. There were no nonwhite operators in the one peanut subregion summarized in the Oklahoma-Texas area; 38 percent of the operators were classified as tenants.



The level of living as measured by home conveniences is also low, electricity is the only home convenience item reported as available on most of the peanut farms. In the 3 peanut areas, 13 percent or less of the specialized farms reported telephones, 28 percent or less television sets and 24 percent or less home freezers. Fifty-seven percent of the farmers in the Oklahoma-Texas area reported piped running water, but only 32 percent in the Virginia-North Carolina area.

Average gross receipts of peanut farms are not high. Gross sales from specified products average \$5,101 in the Virginia-North Carolina area of which peanuts contributed 41 percent, tobacco 34 percent and livestock and livestock products 8 percent. Gross sales in the Georgia-Florida-Alabama area averaged \$3,547; of the total, peanuts contributed 47 percent, cotton 18 percent, tobacco 16 percent and livestock and livestock products 12 percent. Farms in the Oklahoma-Texas area were more specialized than in either of the other two areas. Of the average gross income of \$2,700, peanuts contributed 68 percent, cotton 10 percent and livestock and livestock products 17 percent.

The level of mechanization is not very high on peanut farms. For example, only about half of the farms in the Virginia-North Carolina and Georgia-Alabama-Florida areas reported tractors and 87 percent in the Oklahoma-Texas area.

The peanut farmer, like other farmers, is faced with the continuing problem of adjusting to changes in technology. Increases in mechanization make it possible for one man to operate a larger acreage, but on some farms it raises difficult problems. Even though capital is available it is not always possible to acquire additional land in the amount and place desired. Often it is difficult for the farmer to accumulate or acquire additional capital. Thus, many farmers may continue to operate their land with inefficient equipment because they cannot acquire the most modern machinery or having the machinery they may operate inefficiently for the lack of sufficient land. Inadequate knowledge and lack of capital may also be factors in the slowness of adoption of improved farm practices.

The capital investment on peanut farms is low compared to many other types of farming in the United States. However, the average size of farm is increasing and proportionally there has been a large increase in the amount of capital invested. Table 59 shows Census data for acres per farm and value of land and buildings for selected counties in the peanut areas for 1940, 1945, 1950, and 1954. During this period the average size of farm increased from a third to more than double; the value of land and buildings, while the figure was low in 1940, increased from two and

one-half to as much as five times in the various counties. Although data are not available for machinery and equipment, the relative increase in investment was probably greater than for land and buildings.

Adjusting peanut production to bring supplies in line with current needs is a problem for peanut producers. The demand for the crop during the war years resulted in a large expansion of acreage but the increase was different in the various areas. During recent years there also have been shifts in consumption trends between uses that have affected the market for some types of peanuts more than others. The varieties grown are not the same in all the areas and they supply different uses. These factors make it difficult to develop a control program that will yield a supply of peanuts in line with current needs and at the same time not be difficult to administer between areas.

The peanut farmer also faces a problem of conservation and improvement of the soil. In all of the peanut areas, a high percentage of the cropland is planted in row crops. During the war years much of the suitable cropland was planted too intensively to peanuts. Erosion has been and is a problem on those soils that are susceptible. Measures for conservation and improvement of all farmland need to be emphasized.

TABLE 59. AVERAGE SIZE AND VALUE OF LAND AND BUILDINGS PER FARM, SELECTED COUNTIES IN PEANUT AREAS: 1940 TO 1954

County	1940	1945	1950	1954
Average size of farm (acres)				
Southampton County, Va .....	111	101	126	141
Northampton County, N. C. ....	74	72	77	94
Early County, Ga .....	89	72	138	185
Henry County, Ala .....	112	104	132	171
Jackson County, Fla .....	100	98	123	144
Bryan County, Okla .....	134	146	181	226
Comanche County, Tex .....	177	185	236	250
Average value of land and buildings per farm (dollars)				
Southampton County, Va .....	3,204	4,364	7,600	14,141
Northampton County, N. C. ....	3,181	3,280	6,224	7,505
Early County, Ga .....	2,047	2,562	5,295	7,825
Henry County, Ala .....	2,468	3,035	5,873	6,089
Jackson County, Fla .....	1,845	2,633	4,063	6,035
Bryan County, Okla .....	2,537	3,098	6,966	12,080
Comanche County, Tex .....	3,172	5,322	12,380	16,861













