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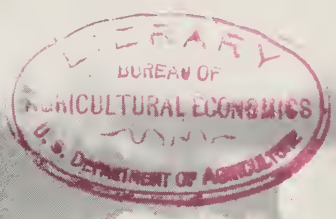
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WESTERN GRASS

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL ADJUSTMENT ADMINISTRATION

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The Range is an important source of national wealth.

WESTERN GRASS

Three and a half centuries ago, the range industry was born in the great Southwest when Spanish conquistadors brought horses, cattle, and sheep from old Mexico across the Rio Grande into Texas. Rugged longhorns, descendants of stock raised by the Moors for a thousand years on the plains of Spain and northern Africa, these cattle flourished under Texas climate and range conditions.

By the 1870's Texas ranges were well stocked, but, mainly because of inadequate transportation, the southwestern beef had difficulty reaching markets. Meanwhile, Texas cattlemen began driving their surplus cattle north to meet transcontinental railroads then pushing westward.

Operators of the old wagon trains learned that their oxen thrived on the short grasses of the West. Likewise, the improved flesh of Texas trail herds after months on the trail made very apparent the value of the native range grasses.

The result was that in addition to the thousands of cattle driven to Kansas for shipment to eastern markets, thousands more went north to graze on the plains of Wyoming, Montana, the Dakotas, and even Canada. In the decade from 1870 to 1880, the range industry spread over the entire short-grass area from the Rio Grande north to the valley of the Missouri in Montana and the Dakotas and west to the foothills of Colorado and Wyoming. Capital from the East and from Europe added impetus to the expansion.

During the 1880's, the boom reached its climax. First, a period of drought swept the northern ranges. Then fol-

The western range covers approximately 728 million acres in 17 States.



lowed years of severe winter storms which caused heavy losses. But more far reaching was the great expansion of dry-land farming in the western United States beginning in the latter part of the 19th century. Liberal homestead laws and stories of rich lands brought a surge of farmers eager to turn grassland into cropland. In competition with the rangemen, they struggled for land. When the homesteading had passed its peak, the stockmen found the "day of the open range" gone, and a new method of ranching emerging as rangemen and farmers shared the one-time vast public domain with Federal withdrawals and preserves and State and county lands.

The Western Range: What It Is Today

Before white settlement, the virgin range comprised the western two-thirds of the United States. Explorers pressing through this unknown wilderness found an immense region of rolling grassland, parched deserts, and rugged mountains.

As it is now known, the western range area covers about 728 million acres, nearly 40 percent of the total land area of the continental United States. It is bounded on the east by a line running roughly north and south through the middle of the Dakotas down through the middle of Texas. Excluding heavy timber, crop and irrigated land, wasteland, and Indian land, the grazeable range includes about 658 million acres.

Seventeen States are cut out of the land it covers: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska,

For centuries cattle grew fat on the nutritious grass of the range.



Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming.

Two characteristics of the western range, low rainfall and geologically new soils, combine to give the native vegetation certain qualities which are the very basis of the range livestock industry.

Many plants on the range become dormant during cold or dry weather, resuming growth when favorable weather returns. The plants may go through this process several times in a season. During dormant periods, the range plant's value as forage is by no means lost. In more humid climates forage plants deteriorate very rapidly in nutrient value when growth stops, but many range grasses and browse plants retain their nutrient value even through the winter.

In much of the region, rainfall is far below 15 inches. In many areas, in 3 or more years out of every 10, rainfall is at least 25 percent below normal. However, when the mellow porous surface soil is interpenetrated with roots, it is capable of effectively absorbing scant rainfall for forage.

Through the years, as the livestock industry expanded, numerous problems developed to threaten the productivity of the range.

Weather cycles continued, as they had in the past, to interfere with forage growth. To rangemen who depended upon range vegetation for support of their herds, droughts meant loss of income and frequently far-reaching damage to range cover.

When drought and low prices come simultaneously, as they frequently do, rangemen have little hope of getting

Not only beef, but countless other products come from the range.





The range needs grass to protect soil, to hold water, to enrich the land.

back even their production costs, let alone enough for carrying out range-conserving and range-building practices which require investments of time and money.

In the development of the West, early national land policies more often hindered than aided progress toward conservation because of the diversified ownerships and interests that were developed. The policies were based largely on experiences in the East. One result in the western area, which had entirely different land characteristics, was the creation of many small units economically incapable of conserving their resources. Another result was the extension of cultivation into areas where grass is vitally needed to protect the soil.

As the plant cover of the range has thinned out, many valuable forage species have virtually disappeared, while other palatable plants have been replaced by foreign plants, many of them nearly worthless or even poisonous.

About 80 percent of the entire range area is eroding to some degree. Nearly half of the eroding range is pouring silt into major western streams and reservoirs, damaging irrigation, power, and municipal water projects. Floods, many of which strike into agricultural sections farther east,

Water is precious in this land of little rain—water for grass, stock.



are increasing in frequency, number, and destructiveness.

The Nation, through Congress, first recognized its responsibility in protecting land resources in this western area when it created the Forest Service in the 1890's to supervise the national forests. In 1934, the Taylor Grazing Act brought other public lands under Government protection. But not until 1936 did the Nation take definite steps for the protection of private range resources, through the Range Conservation Program authorized by the Soil Conservation Act of 1936.

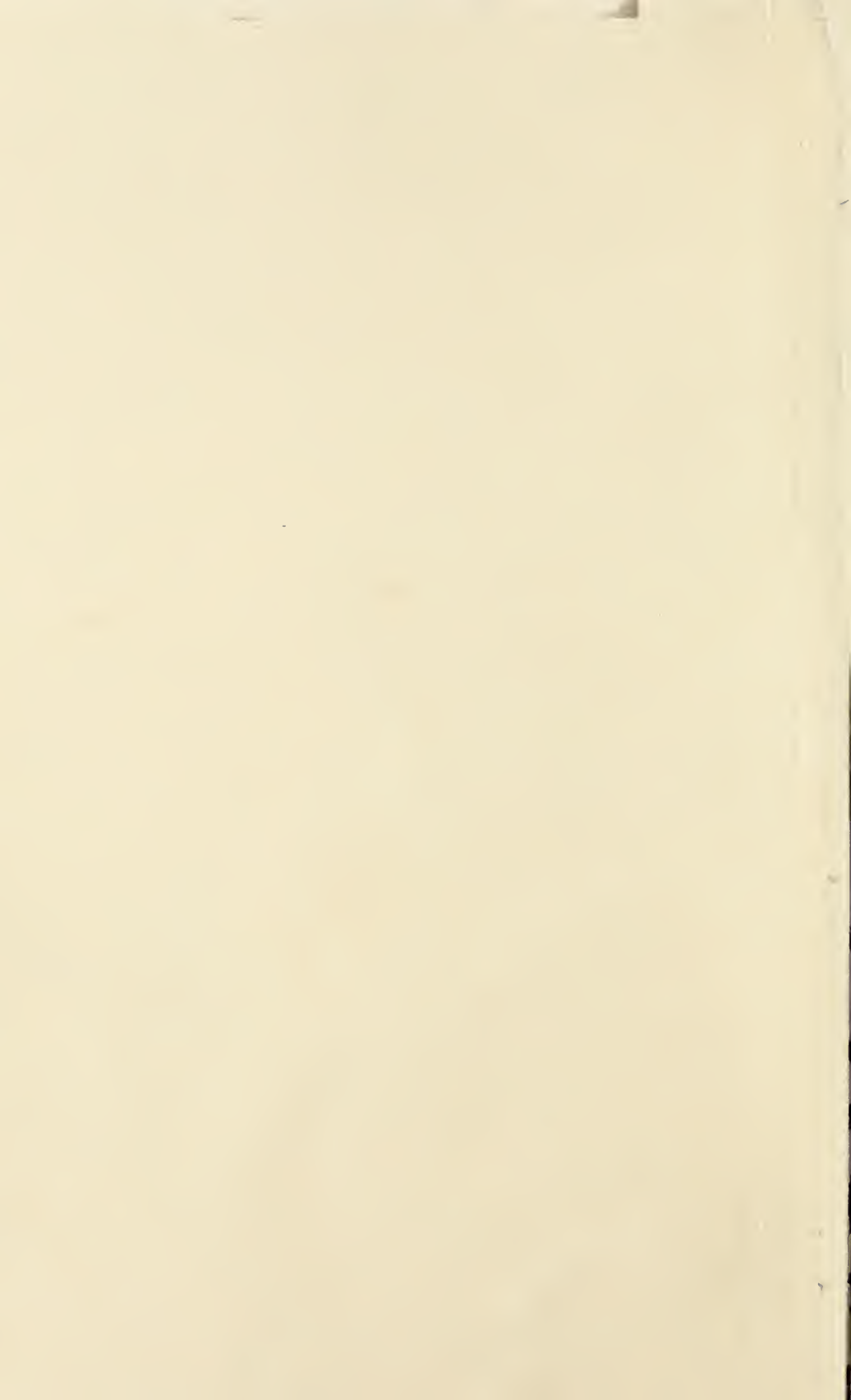
The Western Range: A Program for Its Conservation

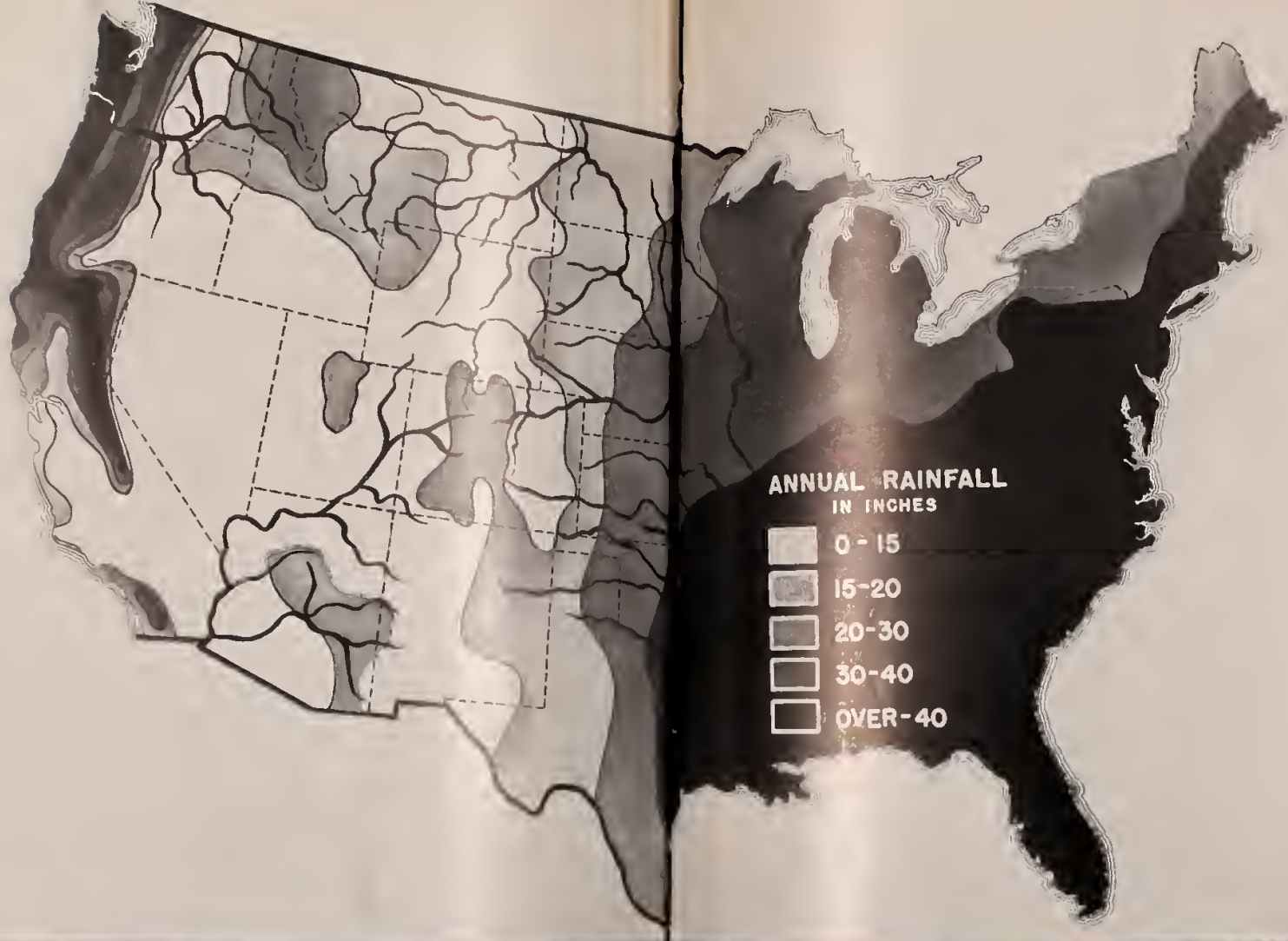
The Range Conservation Program is designed to help range operators carry out range-building practices which research and actual use have shown to be valuable in retarding soil losses and in maintaining and restoring grass on the range.

The program is developed around the grazing capacity of each participating ranch. The grazing capacity, which is the number of mature animals that the range can support without injury to grass, tree growth, or watershed, is determined by a scientific appraisal of the range forage. On the basis of grazing capacity and the number of acres of rangeland in the ranch, a range-building allowance is set up. The range operators may earn this allowance by carrying out practices at rates of payment established by the program.

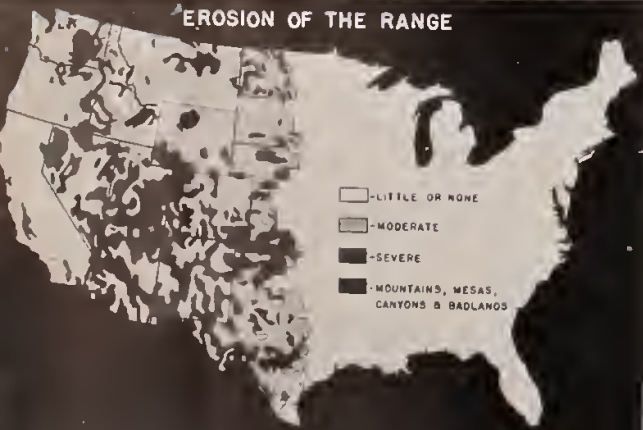
Without grass the soil of the range is exposed to the ravages of erosion.







EROSION OF THE RANGE

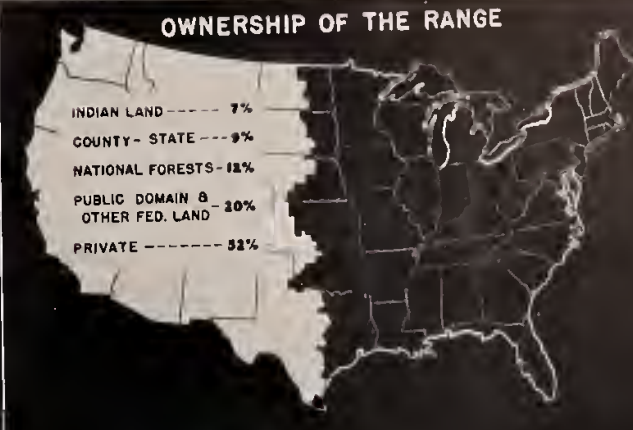


A large part of the western United States gets less than 15 inches of rainfall annually. This moisture must be conserved to combat drought and erosion on the range and floods along major midwestern streams.

Left.—About 80 per cent of the range is eroding to some extent.

Right.—About half the range area, or 376 million acres, is privately owned.

OWNERSHIP OF THE RANGE



The grazing capacity appraisals serve another purpose. They furnish the operator with scientifically gathered information about his range and his range forage. The information assists him in preventing overstocking and he thereby has a better chance of getting a sustained, continued yield of forage and a gradual restoration of the more desirable range plants.

Range-building practices which are approved under the program enable the range operator to increase and to protect the forage growth on the range. In offering a variety of practices, the program recognizes that not all practices are needed or advisable on each participating ranch, and, also, that practices listed for payment may not include all needed on individual tracts. Only those practices are offered which have a wide application and which are generally accepted as being worthwhile wherever nature or past developments already have not fulfilled conservation needs. To meet specific local problems, supplemental practices may be required along with the deferred-grazing practice as a condition of payment.

Rates established for range practices vary from one-half to two-thirds of the out-of-pocket cost to the operator, thus insuring a practical program in which each operator has enough time and money invested so that he will do his best to make the practice accomplish its intended purpose. Range operators themselves are encouraged to supplement these with management practices which will round out an effective attack upon the basic problems.

Restoration of grass through natural reseeding by deferred grazing is among the most important practices

Grass is reseeded artificially, or naturally by deferred grazing.



encouraged in the Range Conservation Program. The operator who carries out this practice keeps his livestock off a part of his range from the beginning of forage growth in the spring until after seed maturity. In this way the plants can grow unhampered through the summer and reseed naturally.

By observing the deferred-grazing practice, the operator builds up an allowance which he may earn by carrying out such supplementary local practices as may be required.

Where the range does not have a sufficient growth of desired forage to obtain satisfactory natural reseeding, approved grasses may be seeded artificially. This practice, however, is limited to areas where soil and climatic conditions make artificial seeding practicable.

Practices designed to bring about a better distribution of livestock on the range are closely related in purpose with the regrassing practices. When a range has few watering places or when the watering places are located in one section of the range, the livestock tend to concentrate in these areas. As a result the grass in the vicinity of the watering places is grazed off first and often the nearby grass is badly trampled.

More watering places provide better distribution of stock on the range.



Past experience forms the basis for AAA range-building practices.



To promote uniform distribution of his livestock the operator may develop additional and better located watering places.

Through the program, the range operator may construct earthen tanks or reservoirs. In rough and broken areas where these are impracticable and where use of the masonry dams for irrigation is not feasible, concrete or rubble-masonry dams may be constructed.

In addition to dams, the operator may develop such natural watering places as springs or seeps, or he may dig wells.

Supplementing efforts to encourage growth of grass and other natural cover, another group of practices, including contour furrowing and water spreading devices, protects the soil by controlling erosion and water run-off.

Contour furrowing serves to hold a maximum of precipitation on the land where it falls. Spreader dams and terraces spread floodwaters over a wider area of rangeland helping them seep in rather than rush off down hillsides creating gullies.

Two practices are included in the program to protect range grass from destruction by competitive plants of low palatability and by fire.

Nature uses weeds and nonpalatable shrubs to protect soil from erosion in the absence of grass. However, these plants often prevent more palatable forage from reviving. The program encourages elimination of certain undesirable species where this can be done without reducing vegetative cover to a degree that would increase erosion.

As a protection against fire, construction of fireguards is encouraged.

Springs and seeps are developed to provide watering places.



The Western Range: A Part of the National Economy

The soil of the range and the forage which it produces are an important source of food and clothing for the Nation. Industry looks to the people of the range for many of its markets. Midwestern and southern agriculture have a special interest in the range, both as a source of feeder-cattle, and as an outlet for products.

Forty-three percent of the Nation's beef cattle are in range States. However, a number of cattle usually credited to other States originate on the western ranges and move to other areas for finishing before being shipped to slaughter points. Probably 60 percent of the breeding cows of the beef type are found in the range States.

Seventy-one percent of the Nation's sheep are found in range States. Most of these are bred, matured, and shipped directly from these States to slaughter points. From 30 to 60 percent of the range lambs are slaughtered direct from the range. A large percentage of the remainder is finished in the irrigated farming areas of these States.

By fattening range livestock, Corn-Belt farmers have opportunity to better their income by converting raw materials, such as hay, corn, and other grain, into finished products. In turn ranchers of the West buy large quantities of shelled corn, oats, and small grain from the Midwest and cottonseed cake, meal, and other products from the South.

The huge meat-packing industry in the United States is based in large part upon the range industry. This important

Spreader dams divert water from gullies to nearby rangelands.



industry, with a capitalization of nearly \$900,000,000, and an annual pay roll exceeding \$250,000,000, during 1937 processed about \$3,000,000,000 worth of products.

The productivity of the range and the security of the western livestock industry is of vital importance to the West, the Midwest, the South, the East, and the Nation. A program which will protect the wealth of the range is of equal importance. Through the AAA Range Conservation Program the operator, county committeemen, and qualified rangemen join in wise planning for each individual ranch. The program offers opportunities for widespread cooperation and financial assistance needed for effective and permanent conservation of the western range.

Your county AAA committee will be glad to furnish information to you on how you may improve your ranch under the Range Conservation Program.

Water is held where needed by contour furrowing of range slopes.



THREE YEARS OF THE RANGE PROGRAM

	1936	1937	1938
Number of applications.....	12,410	37,455	45,168
Acres in program.....	49,039,000	154,553,362	189,851,257
Money earned.....	\$1,810,000	\$8,765,000	\$12,090,000

PRACTICES SHOW STEADY INCREASE ¹



Deferred grazing (acres).....	Not listed	12,841,184	28,077,076
Artificial reseeding (acres)...	36,847	80,860	265,000



Contour furrowing (acres)...	12,016	60,068	158,032
Spreader terraces (lin. ft.)....	1,900,000	3,252,741	7,712,821



Tanks and reservoirs.. (cu. yd.).....	7,163 5,230,151	27,553 31,383,372	21,195 35,416,924
Spring developments	3,437	11,640	4,660

Wells.....	953	1,311	5,904
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Elimination of destructive plants (acres).....	Not listed	1,677,400	2,432,850
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Fireguards (lin. ft.).....	565,862	13,094,488	19,039,086
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¹ Principal practices are shown.

