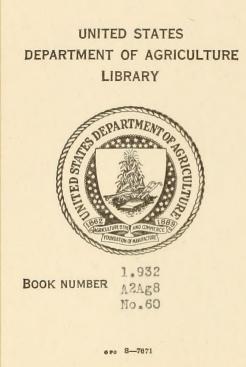
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Frozen Locker Storage Developed Here

Investigation of Preservation Of Fruits and Vegetables By Freezing Conducted in Valley be used for acid fruits. Wire mesh baskets with covers are convenient for scalding vegetables. Slicers, pul-pers and juicers aid in the prepara-tion of certain products. A can sealer is needed for sanitary cans. Thermo-

Dealer Catrid Fablication To. 3163

EDITOR'S NOTE: Investigation of the freezing preservation of Tex-es fruits and vegetables is being conducted co-operatively in the Lower Rio Grande Valley by the Texas Agricultural Experiment Station, on crop production, and the U. S. Fruit and Vegetable Products Laboratory, on processing and freezing. This informal discussion of the preparation of these crops for frozen locker storage was present-ed at the Texas Annual Farmers' Short Course. College Station, July

BY J. L. HEID United States Department of Agri-culture, Bureau of Agricultural Chemistry and Engineering. Fruit and Vegetable Pro-ducts Laboratory

Frozen locker storage has been deloped primarily for meat products. However, when space is not filled, suitable varieties of fruits and vegetables, whole, sliced, pulped or in the form of juice, may be advantageously preserved, efficiently utilizing lock-ers and extending the season during licttuce. citrus fruits, cucumbers and cent sugar syrup for freezing. Heavury of fresh fruits and vegetables at and vegetables, and advice relating times when they are not available to varieties suitable for planting in

in flavor, appearance and food value. To accomplish this purpose it is ne-cessary to prevent injury by enzy-mes, spoilage organisms, oxidation, drying or contamination by odors Fruits should be fully mature in col-



J. L. HEID

home use, including knives, kettles, a store, a supply of clean cold water, and a sink and drain. Kettles should be enamelled, aluminum or stainless steel. Galvanized utensils should not be used for acid fruits. Wire mesh baskets with covers are one of dwanters one of the sector of the meters, scales and cup, quart and gallon measures are convenient, when available

Preparation Explained

trimming, peeling, shelling, coring, ed containers. Transparent rubber. fancy quality.

water, or dilute salt brine immear as soon as prepared.

Peeled and sliced fruits which darken as a result of enzyme action, when in contact with the air, are usually covered with 40 to 60 per

from the escape vent.

ages for storage in limited space. Tub percent). diately after peeling or slicing. Pulps lids may be sealed with melted par-subject to rapid browning (peaches, affin; and a coating of melted par-etc.) should be mixed with 25% su-offin may be applied to the outside brush.

Freezing and Storage

freezer prior to packaging by spread- cooking fresh products. ing on wire or sheet metal trays plac-Vegetables are scalded from 1 to 8 and promptly returned to lockers for

pletely filled, as space should be al-lowed to accomodate for expansion coarse saw dust, wood shavings, etc. For freezing, the center shoot is or boiling water. If corn is to be (1 1-4 inch in jars, ½ inch in cans) The degree of insulation which is perfectly nipped when it appears, frozen on the cob, the scalding should during freezing. Friction top and slip needed varies with the length of time and side shoots, harvested upon be for 8 minutes, followed by rapid Preliminary preparation includes top cans afford a degree of protection required for transportation and upon such operations as cleaning, sorting, approaching that of hermetically seal- atmospheric temperatures.

Allow Fruit to Thaw slicing, pulping and juicing. Wash-ing, grading and trimming should be vide considerable protection. Paper thaw overnight in refrigerators or boiling water, pack dry, or with 2% in cans or other containers for freezadequate to insure clean products of and cardboard, coated with paraffin packages may be thawed rapidly in bring, for freezing storage. are slightly porous at low tempera- 30 to 90 minutes by placing cans or Peeling, shelling and slicing re-tase enzymos and permit penetra-tion of yeasts, molds, and spores, con-sequently, after these operations, pre- $tion = 10^{-10}$ Combination packages consisting of tore should not exceed to b a thinkter by placing calls of<math>tore should not exceed to b a thinkter by placing calls of<math>tore should not exceed to b a thinkter by placing calls ofthe sequentity after these operations, pre-transfer these operations, pre-transfer these operations, pre-transfer the sequent to the sequent to the sequence of the sequence of the sequence of the security of the sequence of the sequsequently, after these operations, pre-paration for freezing should be com-pleted without delay. Fruits subject to browning should be covered with cold syrup, 2% citric acid solution. Combination packages consisting of lacquered cellophane bags enclosed in waxed cartons or tubs, or in bags of kraft paper, glassine of asphalt-laminated paper are convenient pack-to browning should be covered with cold syrup, 2% citric acid solution.

affin may be applied to the outside surface of tubs by means of a paint brush. adapted to the outside thawing and the cooking time is before mixing with peas. The mix-ture is then prepared for freezing as en vegetables is ordinarily 25-50 per described for peas. Products may be frozen in the sharp cent shorter than that required for Cauliflower: Uniform color and ten- Laxton. Glacier. Teton, Laxton's Pro-

Specific Vegetables Listed

ers and extending the season during which desirable products may be corved in prime condition. A study of locker facilities. in relation to State which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-will probably reveal advantageous which have been tested are listed un-should be precopled before ufe. Versetables are scalded from 1 to 8 times when they are not available from local gardens. The purpose of freezing storage in flavor, appearance and food value. To accomplish this purpose it is ne-to accomplish this purpose it is ne-stage, usually approximating the best creating to generating from the first flow of steam may be stated as the preservation of inflavor, appearance and food value. To accomplish this purpose it is ne-to accomplish this purpose it is ne-to accomplish this purpose it is ne-creating to generating from the first flow of steam may be stated as the preservation of inflavor, appearance and food value. To accomplish this purpose it is ne-to accomplish this purpose it is ne-to accomplish this purpose it is ne-creating to containing one inch of the first flow of steam may be stated as the preservation of inflavor, appearance and food value. To accomplish this purpose it is ne-creating to food the fully mature in col-truits and vegetables for free stage, usually approximating the best tor free stage organisms, oxidation, that it affords protection against (preferably steam) cooled and packed undependable and these varieties are for table use. Scald 1. to 11/2 minutes tred from the first flow of steam curated by a fan. Still all is a poor bush, New Wonder. For theory and of desirable varieties for the feast of the feast of the feast should be free from woody fibre. Insufficient scalding may result in packages before freezing, if the air packages before freezing if the air pac plug or caming quality are not im-portant in selecting varieties which have been for treezing preservation, because it-marks and waster being preservation. A mixture preferably in steam, harvesting, and must be kept from, the fueld within the twee relations and vegetables and the set of marks and waster being preservation. A mixture preferably in steam, harvesting, and must be kept from, the fueld within the twee relations and vegetables and by the concell array in the convert or steam. Arrest scaling all vegetables and water, and may be pack the concell array in the convert or steam. Arrest scaling all vegetables and water, and may be pack the concell array in the convert or steam. Arrest scaling all vegetables and water in the scale and present dor freezing torong the fueld within the the convert or steam. Arrest scaling all vegetables and water in the scale and present dor freezing torong the concell array in the scale and present dor freezing torong the concell array in the scale and present dor freezing torong the fueld within as title and water in the scale and present dor freezing torong the concell array in the scale and present dor freezing torong the concell array in the scale and present dor freezing torong the concell array in the scale and present dor freezing torong the concell array in the scale and present dor freezing torong the concell array in the concell array in the scale and present dor the freezing torong and

Section Four

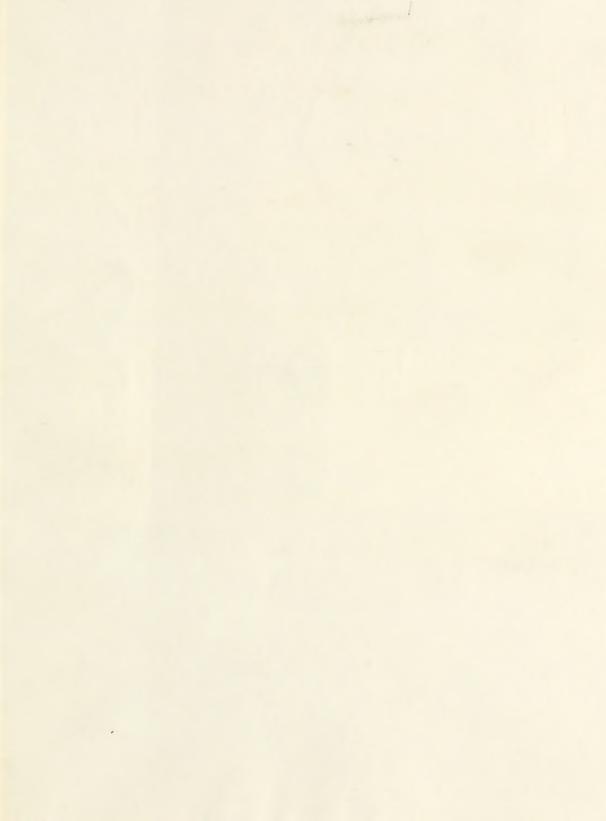
Brussell Sprouts: Firm compact

peas may be frozen.

Corn deteriorates rapidly after harvesting and unless chilled below 40 Broccoli: Italian Sprouting broc- F. should be prepared for freezing sparagus style pack. Scald 3 to 5 minutes in steam or bagged for storage or may be filled ing storage.

If corn is to be cut from the cob.

calding. Canning and field varieties fall months. Dark Podded Thomas der texture are characteristic of de-sirable varieties. Prepare as for table ord, Early Gradus. Improved Gradus.



New York

id from Page 0) FROZEN ğ

der Mexican Fruit Fly quarantine regulations. Freezing preservation investiga-tions have not been conducted on fruits other than berries and citrus in our laboratory, and the suggestions outlined here are based upon obser-vations made in other sections of the

writons made in other sections of the volume. Turking more and canning However, sliced uppers, projecting and canning However, sliced uppers, and canning However, and particularly peeled after available. The exception of these three strains is predicted at the varieties, which the exception of these three strains is predicted at the varieties, which the exception of the strain of the st

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