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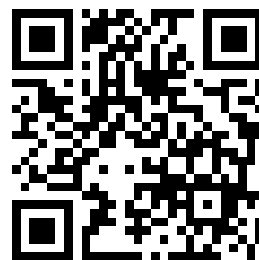
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Number 4.

June, 1922.

Bibliographical Contributions.

Bibliography
on the
Preservation of Fruits and Vegetables
in Transit and Storage,
with Annotations.

Contributed by the Library of the Bureau of Markets and Crop Estimates.

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Bibliographical Contributions.

- No. 1. A check list of the publications of the Department of Agriculture on the subject of plant pathology, 1837-1913.
Prepared in the Bureau of Plant Industry Library. 1919.
- No. 2. Check list of publications of the state agricultural experiment stations on the subject of plant pathology, 1876-1920.
Prepared in the Bureau of Plant Industry Library. 1922.
- No. 3. Check list of publications issued by the Bureau of Plant Industry, United States Department of Agriculture, 1901-1920 and by the divisions and offices which combined to form this bureau, 1862-1901. Prepared in the Bureau of Plant Industry Library. 1921.
- No. 4. Bibliography on the preservation of fruits and vegetables in transit and storage with annotations. Prepared in the Bureau of Markets and Crop Estimates Library. 1922.

BIBLIOGRAPHY ON THE PRESERVATION OF FRUITS AND VEGETABLES
IN TRANSIT AND STORAGE, WITH ANNOTATIONS.

Compiled by Katharine G. Rice.

In assembling this bibliography an attempt has been made to cover rather completely the publications issued prior to July 1, 1920, that have a bearing on the preservation of fruits and vegetables in transit and storage. The successful marketing of perishable products depends to a large extent on harvesting and transporting or storing them in such a way that they will reach the consumer in a satisfactory condition at the time he wants them.

Special attention has been given to investigational and historical material. Bulletins and articles of a popular nature which deal with the practical application of the results of investigations and with commercial practices have also been included. It is hoped that the annotations will be useful in giving some idea of the extent and character of the material included in the references.

This bibliography was planned and begun by Mr. Edwin Smith, who was formerly connected with the Division of Preservation of Fruits and Vegetables in Transit and Storage of the Bureau of Markets. It was then turned over to Miss Caroline B. Sherman, at that time Librarian of the Bureau of Markets, who delegated Miss Katharine G. Rice to complete the work. The outline prepared by Mr. Smith and the references which he had selected were found very useful. Before the bibliography was completed, Miss Sherman and Miss Rice were transferred to the Division of Market Information and because of the pressure of other work it was laid aside. At the request of the present librarian it has been completed recently.

A few references to material published in foreign languages are included. The titles have been translated into English but the annotations indicate the language in which the articles are written.

The call numbers shown at the right hand side of the pages are those used in the Library of the Department of Agriculture and, of course, will be useful only in connection with work carried on in that particular library.

Mary G. Lacy,
Librarian, Bureau of
Markets and Crop Estimates.

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COLD STORAGE

FRUITS

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|----------------|---|---------------|
| Bailey, E. W. | Local cold storage problems for southern Illinois. Ill. Hort. Soc., Trans., new ser., vol. 50, 1916, p. 523-540.
Temperature is the important factor in successful fruit marketing. Cold storages and precooling. Discussion. | 81 *
I16 |
| Barnard, H. E. | Cold storage. Sci. Amer. Sup., vol. 71, no. 1851, June 24, 1911, p. 398.
A general article on cold storage practice. | 470
Sci25C |
| Beach, S. A. | New York apples in storage. N. Y. Exp. Sta., Bul. 248, 1904, p. 83-152.
Results of experiments showing life in storage of 205 varieties of apples. Discussion of results regarding coloring, maturity, cellar storage, mechanical and ice cold storage, size of apples, scald. | 100
N48 |
| Benson, A. H. | Cold storage of fruits. New South Wales Agr. Gaz., vol. 4, pt. 41, Nov. 1893, p. 870-877.
A system of cold storage which affords a nearly even temperature with a constant influx of cold air, 41.7 degrees. Period of storage for various fruits. | 23
N472 |
| Blair, J. C. | Fruit storage experiments. Ill. Exp. Sta., Cir. 44, 1902, 18 pp.
Details of construction for a fruit cold storage house and cellar. | 100
I16S |
| Blake, M. A. | Cold storage test with peaches. N. J. Exp. Sta., Rept. 1911, p. 72-73.
Cold storage test of peaches at 28 and 32 degrees. | 100
N46S |
| Boodle, L. A. | Cold storage of fruits and vegetables. Kew Roy. Gardens, Bul. Misc. Inform. 1914, no. 1, p. 11-16.
A review of Hill's investigations at Cornell regarding ventilation. | 89
K51B |
| Brown, B. S. | Modern fruit marketing. New York, 1916. 233 pp.
A complete discussion of the harvesting, packing, storing, transporting and selling of fruit. | 93
B81F |
| Cairns, A. D. | Cold storage fruit notes, 1907. West Aus. Dept. Agr., Jour., vol. 15, pt. 12, Dec. 1907. p. 902-906.
Keeping qualities of several varieties of apricots, peaches, plums, nectarines, apples and pears. | 23
W52J |

* These symbols refer to the call numbers used in the Library of the U. S. Department of Agriculture.

- Carter, W.F.Jr. Apple storage. Ice and Refrig., vol. 54, no. 2, 295.8
Feb. 1918, p. 73-74. Ic2
Immediate delivery to cold storage is important.
Equipment: Reinforced concrete structure most
satisfactory; brine system of cooling.
- de Castella, F. Storage test of shipping grapes. Victoria Dept. 23
Agr., Jour., vol. 9, pt. 8, Aug. 1911, p. 531-532. V66J
Variety test in cold storage of grapes packed
in cork.
-
- Storage test of shipping grapes. Victoria Dept. 23
Agr., Jour., vol. 10, pt. 12, Dec. 1912, p. 715-717. V66J
Continuation of variety tests begun in 1911.
- Clark, V. A. Cold storage on the farm. Mechanical cold storage 1
for fruit. Keeping qualities of apples. U. S. Ag34F
Dept. Agr., Farm, Bul. 119, 1900, p. 9-18.
Suggestions for cold storage on the farm. Behavior
of different fruits and vegetables in a mechanical
cold store. Relative keeping qualities of 23
varieties of apples.
- Clemence, G. L. Cold storage for farm products. Mass. St. Bd. 2
Agr., Rept. 1896, p. 226-236. M38R
A popular article on cold storage on the farm
and the construction and management of cold
storage houses.
- Cold storage. Garden and Forest, vol. 7, no. 341, Sept. 1894, 80
p. 352-353. G161
Historical. The influence of the refrigerator
car and cold storage upon the fruit and vege-
table supply of New York City. "Experimental
attempts at cold storage began in this city
eighteen years ago (1876), and developed into
a commercial industry three years later."
- Cold storage for apples. Ice and Refrig., vol. 48, no. 5, May, 1915, 295.8
p. 288. Ic2
Description of a small cold storage for apples to
be located near the orchard.
- Cold storage for fruit. Cape of Good Hope Dept. Agr., Agr. Jour., 24
vol. 23, no. 5, Nov. 1903, p. 520-531. Ag8
Correspondence about methods of commercial practice
as observed in the United States.

- Cold storage for fruit. West Indian Bul., vol. 5, 1904, p. 117-134. 8
Interviews with cold storage operators, railroad 4522
steamship company officials in the United States.
- Cold storage of fruits. Amer. Gardening, vol. 24, no. 443, Aug. 80
1, 1903, p. 324-326. Am3
Temperatures, methods and formulae for the
preservation of exhibition specimens.
- Cooper, Madison. Practical cold storage. Chicago, 1905, 600 pp. 295
2nd ed. 1914, 816 pp. C78P
Short historical sketch; theory, design and con-
struction of buildings and apparatus; application
of cold storage to dairy products, fruits, fish;
use of ice; ice houses. The second edition in-
corporates more exact data on design, construction,
and insulation. "A standard authority on modern
cold storage practice."
- Bouane, M. Utilization of refrigeration processes for the 14
conservation, storage and transportation of fruits. P218
Bul. Mens. Off. Rens. Agr. vol. 16, 1917, p. 229-51.
A report to the French Commission containing sug-
gestions for the organization and development of
the fruit industry. (French)
- Eustace, H. J. Cold storage for Iowa grown apples. Iowa Exp. 100
Sta., Bul. 103, 1909, p. 394-414. 109
Discussion of experimental results concerning the
relation between the handling of fruit, the oper-
ation of the storage and the behavior of the fruit
in storage. Covers many points in The Apple in Cold
Storage by G. Harold Powell.
- Faville, E. E. Cold storage for fruit. Kans. Exp. Sta., Bul. 84, 100
1899. 31 pp. K13S
The results of tests in commercial cold storage
and the practical handling of products in cold
storage.
- Ferretti, U. Refrigeration and the cold storage industry. Rocca 295
San Casciano, Italy, 1909. 442 pp. F371
An extended treatise on the cold storage industry.
Bibliography.
- Fruit storage experiments. Ill. Exp. Sta., Cir. 67, 1903, p. 3-10. 100
Results of the use of ice cold storage for one 116S
season.

- Fulton, S. H. The cold storage of small fruits. U. S. Dept. Agr., Bur. Plant Indus., Bul. 108, 1907. 28 pp. 1 P69B
Results of investigations covering three years, relative to the factors including soil, climate, harvesting, packages, storage temperatures and varieties, which affect the keeping of small fruits in cold storage.
- Garcia, Fabian. Hatch Projects. N. M. Exp. Sta., Rept. 1914-15, p. 60. 100 N465
Results of a preliminary test on the keeping qualities of Bartlett pears.
- Gourley, J. H. Notes on storing apples. Amer. Soc. Hort. Sci., Proc. 9th meet., 1912, p. 41-44. 81 Sol2
An experiment to determine the relative value of open and closed packages for the storing of apples. Discussion.
- Greene, L. Apple storage problems. Ind. Hort. Soc., Trans. 1915, p. 72-96. 81 In2
A paper on the author's work in Iowa. Influence of moisture, freezing, maturity, color and size. Discussion.
-
- Cold storage for Iowa grown apples. Iowa Exp. Sta., Bul. 144, 1913, p. 357-373. 100 Io9
Results of freezing apples on the tree and in cold storage. Picking, packing, time of storage, culture, variety tests.
- Hall, F. H. Keeping quality of apples. N. Y. Exp. Sta., Pop. Bul. 248, 1904. 11 pp. 100 N48
Variety tests. A popular treatment of the material contained in N.Y. Exp. Sta., Bul. 248, See Beach, S. A., New York Apples in Storage.
- Hollsinger, F. Cold storage for fruit. Amer. Hort., vol. 5, no. 12, Dec. 1895, p. 180. 80 Am38
Historical.
- Jørgensen, I. Cold storage of food. Sci. Amer. Sup., vol. 83, Sept. 6, 1919, p. 150-151. Cont. Sept. 20, p. 178. 470 Sci25C
When fruit is kept in cold storage, there is a change in the chemical state but not in the physical. Ripening, equation representing relation between respiration and temperature. Respiration number, an index to keeping possibilities. Other factors besides temperature, humidity, light, and movement of air vary for different species and varieties.

- Kapadia system of preservation. Cold Storage and Prod. Rev., vol. 19, no. 220, July 20, 1916, p. 154-155. 295.8
0672
Conservation through the presence of an inert gas. Excellent for delicate fruits.
- Kirk, T. W. Cold storage of fruit. New Zealand Dept. Agr., Jour., vol. 5, no. 5, Nov. 1912, p. 503-515. 23
N48J
Plans and cost of a plant for 4000 cases of fruit.
- Knight, J. Experiments in cold storage of fruit. Victoria, Dept. Agr., Jour., vol. 5, pt. 2, Mar. 1905, p. 158-159. 23
V66J
Notes on keeping quality of apples and pears.
- Latchford, F. R. Cold storage for fruit and other productions. Ontario Fruit Grow. Assoc., Rept., 32d meet., 1900, p. 31-39. 82
On8
A popular discussion of ice cold storage.
- Lemson, H. H. Storage of apples. N. H. Exp. Sta., Bul. 79, 1900, p. 25-29. 100
N45
Report of biological study concerning the storage of apples.
- Loiseau, Leon. Preservation of fruits by cold storage. Paris, 1903. 29 pp. 295
L83
Keeping peaches and other fruits in cold storage and their shipment to New York.
- de Loisy, C. The conservation of fruits by cold storage. Rev. Soc. Sci. Hyg. Aliment. vol. 6, no. 3, 1908, p. 79-80. 389.9
Sol
Refrigeration does not inhibit the ripening processes going on in the interior of fruit. Storage temperatures recommended for peaches, oranges, lemons, grapes, and tomatoes. (French)
- McKay, G. H. Cold storage. N. J. Hort. Soc., Proc. 1907, p. 127-135. 81
N42
Some suggestions concerning the profit of careful fruit storage in New Jersey. Discussion.
- Mason, R. P. Cold storage for apples. Amer. Cultivator, vol. 57, no. 46, Nov. 16, 1895, p. 1. 6
Am32
A brief article giving the proper temperatures.
- Mauco, I. Application of cold in the agricultural industry. Agr. Mod., vol. 19, no. 25, 1913, p. 270, 271. 16
Ag23
The conservation of strawberries. (Italian)

- Memorandum respecting cold storage and the utility collecting stations. 295
Ontario Govt., By order Leg. Assem., 1900, p. 1-12, On3
14-16.
Cold storage is advantageous to successful marketing
and maintaining trade. The collecting station -
erection and control.
- Moody, J. F. Cold storage of fruit. West. Aus. Dept. Agr. and 23
Indus., Bul. 31, 1912. 7 pp. W52B
Discussion of cold storage.
- Powell, G. Harold. The apple in cold storage. U. S. Dept. Agr., Bur. 1
Plant Indus., Bul. 48, 1903. 64 pp. P69B
Description of a comprehensive series of exper-
iments on various varieties of apples from several
States when held in cold storage. Culture of fruit,
maturity, packages, size of fruit, temperatures
and scald.
-
- Cold storage investigations by the U. S. Department 81
of Agriculture. Ill. Hort. Soc., Trans., new ser., 116
vol. 36, 1902, p. 363 - 368.
A discussion of maturity, decay in storage, temper-
ature, wrapping and packages for the storage of
pears, peaches and apples.
-
- Cold storage with special reference to the pear and 1
peach. U. S. Dept. Agr., Bur. Plant Indus., Bul. P69B
40, 1903. 28 pp.
Discussion of results of experiments with picking
and packing pears and peaches for storage; temperatures.
-
- Relation of cold storage to commercial apple culture. 1
U. S. Dept. Agr., Yearbook, 1903, p. 225-238. Ag84Y
The apple industry in 1903. Markets, marketing,
cold storage development and the proper harvesting
and handling of apples.
- Pratt, B. B. Does wood of the box affect the flavor of apples? 80
Better Fruit, vol. 8, no. 3, Sept. 1913, p. 25. B46
The results of tests in cold storage using boxes of
different kinds of wood.
- Preservation of grapes by freezing. Pure Products, vol. 10, no. 7, 388.8
July 1914, p. 355. P97
Description of a process used in Holland for pre-
serving grapes as when taken from the vine. Six
hundred pounds showed only 1 per cent loss in weight.

- Quinn, G. Further experiments in the cold storage of fruit. 23
South Aus. Dept. Agr., Jour., vol. 10, nos. So84
2 and 3, Oct. 1906, p. 75-78.
Accounts of the cold storage of plums, apples and
pears for different lengths of time.
- Ramsey, H. J. The handling and storage of apples in the Pacific 1
Northwest. U. S. Dept. Agr., Bul. 587, 1917. 32 pp. Ag84B
Methods of harvesting and storage. Storage life of
various varieties of northwestern apples.
- Rane, F. W. Notes on cold storage. Amer. Gardening, vol. 19, 80
no. 194, Sept. 1898, p. 634-635. Am3
Essentials for successful storage. Taken from a
paper presented to Society for Promotion of
Agricultural Science, 1897.
- Reynolds, J. B. Cold storage of pears and apples. Ontario Agr. 101
Coll. and Exp. Farms, Bul. 123, 1902. 8 pp. On8B
Discussion of methods for handling pears and
apples in cold storage. (Summary in Canada
Hort., vol. 25, no. 10, Oct. 1902, p. 404-405)
- Ruddick, J. A. Cold storage and the cold storage act. Canada 44.9
Dept. Agr., Dairy and Cold Stor. Com., Bul. C16B
23, 1910, p. 3-27.
The cold storage of apples and other fruits.
Warehouses. Ice storages on farms. (Eggs and
dairy products included).
-
- The cold storage of food products with some notes 44.9
on insulation and warehouse management. Canada C16B
Dept. Agr., Dairy and Cold Stor. Com., Bul. 44,
1915. 23 pp.
Methods and proper temperature for cold storage.
(Includes suggestions for storage of dairy products
and furs.)
-
- Refrigeration in relation to fruit growing in Canada. 82
Nova Scotia Fruit Grow. Assoc., Rept. 48th meet., N85
1912, p. 33-42.
Popular address.
- Selfe, N. Cold storage and the preservation of fruit from an 23
engineer's point of view. Tasmania Coun. Agr., T18A
Jour. July, 1895, p. 68-71.
A popular article in the nature of a review with
suggestions.

- Smith, E. Precooling, shipment and cold storage of tender fruit. Canada, Dept. Agr., Dairy and Cold Stor. Com., Bul. 48, 1916. 35 pp. 44.9
C16B
Results of warehouse precooling; time required for precooling; storage life; the effect of rapid vs. gradual precooling on cherries, peaches, plums, pears.
- Stetefeld, R. Cold storage for fruits and vegetables. Gartenflora, vol. 54, 1905, p. 231-245. 80
G19
Discussion of results of experimental work in the United States and Europe. (German)
- Stubenrauch, A. V. Cold storage, precooling and shipping deciduous Fruit. Oreg. Hort. Soc., Proc. 25th meet., 1910, p. 31-38. 81
Or32
General discussion of factors influencing the keeping of fruit in storage and transit.
-
- Factors governing the successful storage of California table grapes. U. S. Dept. Agr., Bul. 35, 1913. 31 pp. 1
Ag84B
Investigations from 1906 to 1912. Description of test work. Satisfactory methods for packing grapes for storage. Transportation.
-
- Fruit and vegetable transportation and storage investigations by the Department of Agriculture. Amer. Warehousemen's Asso., Proc. 23d meet., 1913, p. 116-142. 297.9
Am32
Results of experimental work on grapes, pears, apples, pineapples, and celery. Discussion.
-
- Report on grape shipment experiments. Calif. Fruit Grow., vol. 40, no. 1115, Nov. 29, 1909, p. 1-4. 80
C12
Experiments of the Bureau of Plant Industry in California relating to the storage and transportation of table grapes.
-
- Storage and refrigeration of fruits and vegetables. Stan. Cyclopaedia of Hort., vol. 6, 1917, p. 3245-3259. 90
C995
Systems of cold and common storage; insulation; temperatures for fruits and vegetables; maturity and methods of handling fruits and vegetables for storage.
-
- Storage and transportation investigations with citrus fruits and grapes. Ice and Refrig., vol. 36, no. 1, Jan. 1909, p. 8-9. 295.8
Ice
Valencia oranges, lemons and table grapes.
- Taylor, W. A. The influence of refrigeration on the fruit industry. U. S. Dept. Agr., Yearbook 1900, p. 561-580. 1
Ag84Y
The historical development of cold storage. Effect of cold storage and the refrigerator car upon the development of the fruit industry.

- Valvassori, V. The preservation of fruits and vegetables. Rev. Soc. Sci. Hyg. Alimen. vol. 1, no. 5, 1904, p. 592. 389.9 Sol
A summary of data regarding the length of time fruit and vegetables may be kept in cold storage. (French)
- Waugh, F. A. A model cold storage house. Coun. Gent., vol. 76, no. 3074, Dec. 30, 1911, p. 7, 27. 6 C833
Description of fruit storage house at Massachusetts Agricultural College.
- Wilcox, E. V. Cold storage for tropical fruits. Hawaii Exp. Sta., Press Bul. 47, 1914. 12 pp. 1 Ex63H
Storage tests of the Star appls, avocado, fig, papya, pineapple, and mango were made at 32 degrees, 36 degrees and 45 degrees.
- _____ Miscellaneous investigations. Hawaii Exp. Sta., Rept. 1914, p. 23. 1 EX63H
Experiments on the adaptability of cold storage to various tropical fruit.
- Wright, W. P. Cold storage of fruit. Gt. Brit. Bd. Agr., Jour., vol. 6, no. 1, 1899, p. 85-87. 10 G79J
A report of experiments with sort fruits at temperatures of 30 and 32 degrees and with apples at 36 degrees.

VEGETABLES.

- Aldrich, P. H. The winter storage of roots. Vt. Exp. Sta., Bul. 203, 1917. 9 pp. 100 V59
Concerning the loss in weight and the decay of roots in various forms of storage and packing mediums.
Edibility of stored vegetables.
- Close, C. P. Irish potato investigations. Md. Exp. Sta., Bul. 132, 1909, p. 151-173. 100 M36S
Cold storage of seed potatoes has little advantage over ordinary storage.
- Cold storage onions. Pacif. Rural Press, vol. 57, no. 21, May 27, 1899, p. 321. 6 P112
Experiments showing that it is feasible to overcome the sprouting propensity of onions.
- The keeping of asparagus in cold storage by canning establishments. Pure Products, vol. 6, no. 6, June 1910, p. 312-313. 389.8 P97
No appreciable change takes place after storing for period of four weeks.

- Morse, F. W. Experiments in keeping asparagus after cutting. Mass. Exp. Sta., Bul. 172, 1917, p. 297-307. 100 M384
Analysis and physiological study of asparagus under refrigeration.
- Parisot, F. Temperature in relation to storing potatoes. Jour. Agr. Prat., new ser., vol. 3, no. 50, 1904, p. 763-765. 14 J82
Abstract in Rev. Hort., vol. 77, no. 1, 1905, p. 8.
A temperature of 3°C. is found best for potatoes.
(French*)
- Price, J. C. C. Harvesting and storing sweet potatoes. Ala. Exp. Sta., Bul. 197, 1917. 22 pp. Issued also as Bul. 197, pop. ed. 111S
Tests with sweet potatoes stored in cold stores, banks and pits, show that cold storage is to be preferred.
Plans for store house.
- Thompson, H. C. Celery storage experiments. U. S. Dept. Agr., Bul. 579, 1917. 26 pp. 1 Ag84B
Results of experiments 1912-1916. Description of crates, effect of height of crates in storage room.
- _____ Preliminary report on celery storage investigations. 81
Soc. Hort. Sci., Proc. 11th meet., 1914, p. 10-18. Sol2
Temperatures in transit, type of crate and temperature in storage as related to decay.
- White, T. H. Irish potato investigations from 1909 to 1913. Md. Exp. Sta., Bul. 172, 1913, p. 105-120. 100 M36S
Showing the advantage in holding seed potatoes in cold storage.

COMMON STORAGE.

FRUITS.

- Brayton, A. W. Keeping apples in common storage. Ill. Hort. Soc., Trans., new ser., vol. 50, 1916, p. 412-416. 81
Handling a storage house. Discussion. 116
- Clark, V. A. Storing apples without ice. U. S. Dept. Agr., Farm. Bul. 119, 1900, p. 5-9. 1
Storage pits and houses. Specifications. Ag34F
- Concrete structures for storing fruit and vegetables. Ice and Cold Stor., vol. 20, no. 236, Nov. 1917, p. 145-146. 295.3
Construction of a concrete storage cellar for use without ice. Cooling and ventilating systems. Plans. 1c22
- Cummings, M. B. Farm apple storage. Vt. Exp. Sta., Bul. 186, 1915, 100
p. 99-130. V59
Studies in apple storage relative to dipping in various solutions and packing in various fillers. Structural character of apples in relation to storage.
- Fagan, F. N. Home storage houses for fruits. Pa. St. Coll. Agr., Ext. Cir. 74, 1918. 18 pp. 275.29
Underground and pit storage. Specifications for storage P38C
house. Twenty-four illustrations.
- Forbush, E. H. Common storage of fruits and vegetables. Mass. St. Bd. Agr., Bul. 5 (3rd ed. rev.), 1918, p. 172-183. 2
Various kinds of storages for small-scale producers. M38B
Suggestions for special care of certain products.
- Grapes and how to store them. Coun. Life, vol. 36, no. 5, 1919, p. 68. 80
Suggestions for storing grapes for domestic use. C332
- Home vegetable and fruit storage. Mass. Agr. Coll., Ext. Bul. 26, 275.29
1913. 7 pp. M381E
The cellar store room. Elementary.
- Hutt, V. N. Air-cooled apple storage houses. N. C. Exp. Sta., 100
Bul. 228, 1914. 31 pp. N81
Materials for a storage. Arrangement for intake of cold air. Management. Plans.
- Construction and use of farm storage house for apples. 81
Ind. Hort. Soc., Trans. 1917, p. 233-247. In2
Description of an air-cooled storage house. Handling the apples for storage. Discussion.

- Kaiser, W. G. A concrete storage cellar for the orchardist. Ill. Hort. Soc., Trans., new ser., vol. 51, 1917, p. 58-69. Description. Discussion regarding relative merits of concrete and brick. 81 I16
- Lewis, C. I. Pear harvesting and storage investigations in Rogue River Valley. Oreg. Exp. Sta., Bul. 162, 1919. 39 pp. Study of increase in size of Bartlett pears. The "Pressure test." Time of picking and type of storage in relation to keeping Bartlett and Bosc pears. Twenty-one tables. Comprehensive. 100 Or3
- Lewis, D. E. The possibilities of a good cheap common storage plant. Better Fruit, vol. 8, no. 4, 1913, p. 14-15. Results of experiments at the Kansas Experiment Station. 80 B46
- Lewis, W. J. Profitable fruit storage cellar. N. Eng. Homestead, vol. 65, no. 8, Aug., 1912, p. 140, 142. Descriptive. Diagrams. 6 N442
- Quick, W. C. Essentials of air-cooled storage houses. Better Fruit, vol. 12, no. 11, 1918, p. 5, 23. Importance of ventilation, insulation, humidity. 80 B46
- Ramsey, H. J. Management of common storage houses for apples in the Pacific Northwest. U. S. Dept. Agr., Farm. Bul. 352, 1917. 23 pp. Description and operation of common storages for apples. 1 Ag84F
- Shear, C. L. Spoilage of cranberries after harvest. U. S. Dept. Agr., Bul. 714, 1918. 20 pp. Storage decays; losses occur because of smothering and fungus rots. Suggestions for harvesting, sorting, storing. 1 Ag84B
- Simpson, R. A. Cool storage for the commercial apple-grower. Ill. Hort. Soc., Trans., new ser., vol. 20, 1916, p. 147-160. Description of a cool storage to be built in the orchard. Discussion. 81 I16
- Smith, E. Farm storages for fruits and vegetables. Brit. Col. Dept. Agr., Bul. 58, 1914. 29 pp. Description of methods of ventilation and insulation of common storages; methods of building pits. Plans. 7 B77
- Taylor, R. H. Some effects of high temperatures and humidity upon the keeping quality of Bartlett pears. Calif. St. Com. Hort., Mo. Bul., vol. 8, no. 3, 1919, p. 113-125. Temperatures ranging from 95 to 110 degrees F. will prolong normal ripening process. Procedure, tables, results. Not valuable for practical application. 2 C12M

- Thayer, P. Storage of grapes. Ohio Exp. Sta., Mo. Bul., vol. 3, 100
no. 10, 1918, p. 315-317. Oh3S
The results of tests conducted on 22 varieties of
grapes to determine which are best for storage.
Handling.
- True, R. H. Some factors affecting the keeping qualities of American 1
lemons. U. S. Dept. Agr., Bur. Plant Indus., Cir. 26, P69C
1909. 17 pp.
Notes on the methods of handling, storing, and curing
California lemons and their decay.
- War vegetable gardening and home storage of vegetables. Nat. War 75
Garden Com., Washington, 1918, p. 24-31. N212
A home storage manual for fruits and vegetables.

See also Cold storage, fruits; Handling, fruits.

VEGETABLES.

- Alwood, W. B. A new plan for the construction of a storage cellar. 100
Va. Exp. Sta., Bul. 58, 1895, p. 161-168. V81S
Suggestions for construction.
- Beal, W. H. Storage of Hubbard squash. U. S. Dept. Agr., Farm Bul. 1
342, 1909, p. 18-19. Ag84F
Factors governing the successful storage of squash
as determined by Prof. W. Stuart of the Vermont Station.
- Beattie, J. H. Home storage of vegetables. U. S. Dept. Agr., Farm. 1
Bul. 879, 1917. 22 pp. Ag84F
Various types of storages with plans. Special methods
for storing different vegetables.
- Beattie, W. R. Celery. U. S. Dept. Agr., Farm. Bul. 282, 1907, 1
p. 22-34. Ag84F
Decays, blanching, handling, storing in trenches,
cellars and storage houses.
- _____ Onion culture. U. S. Dept. Agr., Farm. Bul. 354, 1909, 1
p. 21-29, 31-33. Ag84F
Harvesting, storing, marketing.
- _____ The storage and marketing of sweet potatoes. U. S. 1
Dept. Agr., Farm. Bul. 520, 1912. 16 pp. Ag84F
Harvesting, marketing. Construction of storage houses.
- _____ Sweet potatoes. U. S. Dept. Agr., Farm. Bul. 324, 1
1908, p. 26-35. Ag84F
Harvesting, grading, marketing. Storage houses.

- Brown, B. S. Vegetable storage on the farm. Me. Coll. Agr., Ext. Bul. 120, 1913. 15 pp. 275.29
Field and cellar storage. Directions for storing different kinds of vegetables. M281B
- Butler, Q. Storage of potatoes. N. H. Exp. Sta., Cir. 20, 1919. 100
8 pp. N45
Effects of temperature, aeration, humidity. Pit storage.
- Cance, A. E. Connecticut Valley onion supply and distribution. Mass. 100
Exp. Sta., Bul. 169, 1916, p. 74-77, 83-97. M38H
Harvesting and storing onions in the Connecticut Valley.
- Carpenter, J. W. Sweet potato storage. Miss. Agr. Coll., Ext. Cir. 275.29
18, 1917. 16 pp. M58C
Construction of a storage house; plans. Harvesting, diggers, grading, hauling, filling the storage house. Care of potatoes during the storage. Storage pits.
- Christie, W. Reports of Hedemarken County Experiment Station. 104
1910. 53 pp. N832
Results of storing in-piles shows desirability of having a storage house. (German.)
- Cole, E. W. Sweet potato curing in Texas. Tex. Dept. Agr., Bul. 2
49, 1916, p. 10-25. T312B
Harvesting. Plant of the Nabors Fruit Co. at Winnsboro, Tex.; equipment, methods, costs. Illustrations.
- Conolly, H. M. Illustrated lecture on sweet potatoes. U. S. Dept. Agr., 1
Syllabus 26, 1917, p. 6-12, 15-18. Ex6Fa
Construction and management of storage house. Harvesting. Diseases.
- Dolke, R. M. Potato warehouse plans. N. Dak. Exp. Sta., Bul. 101, 100
1912. 26 pp. N313
Requirements, types, plans. The elevator and loading platform.
- Elliott, J. A. Storage rots of sweet potatoes. Ark. Exp. Sta., Bul. 100
144, 1918. 16 pp. Ar42
Short description of causes and kinds of disease. Kiln drying, curing. Storage houses and bins - specifications and plans.
- Fairfield, W. H. A cheap root cellar. Canada Exp. Farms, Rept. 1914, 101
vol. 2, p. 940. Ex6R
Suggestions for building a small root cellar on the farm.
- Fields, J. Storing sweet potatoes. Okla. Exp. Sta., Rept. 100
1905-1906, p. 36-37. Ok4
Directions for successful storing.

- | | | |
|-----------------|--|----------------|
| Findlay, H. | Practical gardening. New York and London, 1918.
p. 225-236.
Suggestions for storing late vegetables from the
home garden. The storage pit, vegetable cellar,
attic storage. Elementary. | 90
F49 |
| Greig, A. R. | Silos and root cellars for prairie farms. Brit. Col.,
Dept. Lands, Forest Br., Bul. 9, 1915, p. 28-34.
Storing field roots. Specifications for a root cellar. | 99.9
B77B |
| Grubb, E. H. | Potato culture on irrigated farms of the west. U. S.
Dept. Agr., Farm Bul. 386, 1910, p. 9-10.
Storage, marketing. | 1
Ag84F |
| Hayunga, J. | Methods of storing cabbage over winter in Holland.
Mittell. Deut. Landw. Gesell., vol. 26, no. 33, 1911,
p. 517-520.
Description of a cabbage storage house. (German) | 13
D48M |
| Hoffman, G. P. | Bill of materials and building plans for the Clemson
sweet potato storage house. Clemson, S. C. Agr. Coll.,
Ext. Cir. 10, 11, 12, 1918. 4 pp. each.
Plans for buildings with a capacity of 2,000, 1,000
and 500 bushels, respectively. | 275.29
So8E |
| Johnson, S. B. | Sweet potato storage. Ariz. Exp. Sta., Rept. 1917,
p. 441.
Results of two tests carried on at Yuma Date Orchard
by the Division of Horticulture. | 100
Ar4 |
| Lance, E. J. | Saving sweet potatoes for seed. New South Wales Agr.
Gaz., vol. 12, no. 2, 1901, p. 231.
Storing in a box with alternate layers of dry sand. | 23
N472 |
| Laughlin, E. V. | Potato storage house. Farm Eng., vol. 5, no. 4, 1917,
p. 6.
Plan and specifications for a storage house with a
capacity of 25,000 bushels. | 58.8
F224 |
| Lloyd, J. W. | Storage of vegetables for winter use. Ill. Exp. Sta.,
Cir. 231, 1918. 4 pp.
Basement, pit and outdoor cellar storage. Elementary. | 100
IL6S |
| McCall, F. E. | Vegetable storage. S. Dak. St. Coll. Agr., Ext. Cir.
9, 1918. 12 pp.
The outside cellar, house cellar, storage house, storage
pit. The air-cooled cellar, plan of ventilation. Best
storage temperatures for various vegetables. | 275.29
So85 |

- McGinty, R. A. Storing vegetables for home use. Colo. Agr. Coll., Ext. 275.29
Bul., ser. 1, no. 145, 1918. 3 pp. (Reprint of Ext. C71E
Bul., no. 131).
Elementary.
- Macoun, W. T. The potato in Canada. Canada Dept. Agr., Exp. Farms, 101
Bul. 90, 1918, p. 12-14. C33B
Cellar and pit storage on a small scale.
- Merrill, M. C. Storing vegetables for winter. Utah Exp. Sta., Cir. 100
26, 1917. 8 pp. Utl
Requirements and methods.
- Moore, J. G. How to store vegetables for winter use. Wis. Exp. Sta., 100
Cir. 92, 1917. 8 pp. W75
Directions for storing in cellars and pits. The parti-
cular essentials for different vegetables.
- Mooring, D. C. Sweet potatoes. Okla. Exp. Sta., Cir. 25, 1914, 100
p. 8-12. Ok4
Harvesting. Directions for storing and building a
wooden storage.
- Nesbit, D. M. Sweet potatoes. U. S. Dept. Agr., Farm. Bul. 129, 1901, 1
p. 20-27. Ag84F
Harvesting, shipping, storage, desiccation.
- Ormsbee, C. O. Storing celery. Market Grow. Jour., vol. 25, no. 9, 6
1919, p. 178-179. M34
Storage and handling.
- Partial directions for raising, harvesting and storing onions, squashes, 2
cabbages, as applicable to Maine conditions. Me. Dept. M28B
Agr., Quar. Bul., vol. 15, no. 2, 1916, p. 6-7, 11-13,
18-19.
Directions for harvesting and storing on a small scale.
- Potts, A. T. Growing and storing sweet potatoes. Tex. Agr. Coll., 275.29
Bul. B-27, 1916, p. 11-16. T312
Harvesting. Plans for storage house. Care in storage.
- Rosa, J. T. Jr. Storing vegetables. Mo. Coll. Agr., Ext. Cir. 53, 275.29
1918. 8 pp. M69C
Caves, trenches. Methods of storing different
vegetables.
- Schaffnit, E. Winter storage of potatoes. Zeit. Landw. Kammer Brauns., 18
vol. 84, no. 28, Oct. 1915. pp. 245-249. B73
- Schribaux, E. A method of storing potatoes. Jour. Agr. Prat., new 14
ser., vol. 7, 1904, p. 214, 215. J82
Description of storing potatoes in pulverized soil
or sand. (French)

- Smith, F. Potatoes. Cultivation, manuring, varieties, storing and seed supply in Bengal. Bengal Dept. Agr., Quar. Jour., vol. 3, no. 1, 1919, p. 8-12. Experiments with storage methods. 22 B43Q
- Stahl, J. L. Hints on storing and marketing potatoes. West. Wash. Exp. Sta., Mo. Bul., vol. 4, no. 7, 1916, p. 9-10. Storing seed and market potatoes. 100 W272
- Stewart, G. Potato production. Utah Exp. Sta., Cir. 40, 1919, p. 41-54. Digging, grading are factors in storage. Elementary. 100 Utl
- Stuart, W. Potato storage and storage houses. U. S. Dept. Agr., Farm. Bul. 847, 1917. 27 pp. A discussion of factors in potato storage with a presentation in details of methods of constructing and operating pits, cellars and storage houses. 1 Ag84F
- Stuckey, H. P. Sweet potatoes. Ga. Exp. Sta., Bul. 107, 1914, p. 93-99. Fungicides do not prevent decay. Plans and specifications for a storage house. 100 G29S
- Suitable storage conditions for certain perishable food products. U. S. Dept. Agr., Bul. 729, 1913, p. 1-6. Valuable information and data with accompanying chart, for managers of storage warehouses, Federal Reserve Banks, and producers of farm products. (Butter, poultry and fish included.) 1 Ag84B
- Thompson, H. C. Storing and marketing sweet potatoes. U. S. Dept. Agr., Farm. Bul. 543, 1913. 15 pp. Maturity, careful handling, thorough curing and temperatures. Directions and designs for building a storage. 1 Ag84F
- _____ Sweet potato storage. U. S. Dept. Agr., Farm. Bul. 970, 1913. 27 pp. Detailed discussion of factors governing the successful storage of sweet potatoes and methods of construction of pits, cellars and storage. Plans. Specifications. 1 Ag84F
- Woodhouse, E. J. Potato storage work in Bihar and Orissa in 1912. Bihar and Orissa Dept. Agr., Jour., vol. 1, no. 2, 1913, p. 115-137. Notes on storing under sand to prevent damage from the potato moth. 22 In23

See also, Cold storage; Decays and physiological disturbances, vegetables; Handling, vegetables.

DECAYS AND PHYSIOLOGICAL DISTURBANCES.

FRUITS.

- Ames, Adeline The temperature relations of some fungi causing storage rots. *Phytopathology*, vol. 5, no. 1, 1915, p. 11-19. 464.8
Showing the temperatures at which storage rot organisms will germinate and grow. Tables. P56
- Brill, H. C. Copra and coconut oil. *Philippine Jour. Sci.*, sect. A, vol. 12, no. 2, 1917, p. 55-86. 475
Moisture and molds on copra and coconut meat cause loss of weight in transportation. Micro-organisms described. Copra once properly dried does not ordinarily absorb enough moisture to develop growth of mold. Drying methods used in Philippines. P53
- Brooks, Chas. Some apple diseases and their treatment. *N. H. Exp. Sta.*, Bul. 157, 1912. 15 pp. 100
A general discussion of apple diseases prevalent in orchard and storage. N45
-
- Apple rots. Abstract in *Phytopathology*, vol. 4, no. 6, 1914, p. 403. 464.8
List of fungi which have been isolated from market and storage apples and which are capable of producing rot. P56
-
- Apple scald. Abstract in *Phytopathology*, vol. 6, no. 1, 1916, p. 110-111. 464.8
Experiments indicate that humidity is more important than carbon dioxide in determining the amount of apple scald. P56
-
- Apple-scald. *U. S. Dept. Agr., Jour. Agr. Research*, vol. 16, no. 5, 1919, p. 195-217. 1
A report of studies on the nature and control of apple scald including experiments on the relation of orchard and storage conditions to the development of the disease. Tables and graphs. Ag84J
-
- Brown-rot of prunes and cherries in the Pacific Northwest. *U. S. Dept. Agr., Bul.* 363, 1916. 10 pp. 1
Blossom infection. Suggested spraying schedule. Ag84B

- Brooks, Chas. Effect of temperature aeration and humidity on Jonathan-spot and scale of apples in storage. 1
U. S. Dept. Agr., Jour. Agr. Research, vol. 11, Ag84J
no. 7, 1917, p. 287-318.
Results of laboratory experiments. Fairly mature fruit stored under conditions of good aeration show comparatively little spot or scald.
-
- Jonathan spot. Abstract in Phytopathology, vol. 7, 464.8
no. 1, 1917, p. 76. P56
Relation of temperature and humidity in storage to Jonathan spot.
-
- Recent experiments on apple scald. Ice and 295.8
Refrig., vol. 54, no. 1, Jan. 1918, p. 44-45. Ic2
A paper read before a meeting of the American Warehousemen's Association with discussion. Experiments made by the Bureau of Plant Industry; methods, relation of various conditions to development of scald.
-
- Temperature relations of apple rot fungi. U. S. 1
Dept. Agr., Jour. Agr. Research, vol. 8, no. 4, Ag84J
1917, p. 139-164.
Showing rate of growth of apple rot fungi at various temperatures. Twenty-five graphs.
- Clinton, G. P. Apple rots of Illinois. Ill. Exp. Sta., Bul. 69, 100
1902, p. 189-224. I16S
Various fruit rots described. Illustrations.
- Cook, Melville T. The Jonathan spot rot. Phytopathology, vol. 4, no. 2, 464.8
1914, p. 102-105. P56
Investigation of causes of spot rot carried on by bagging apples on trees at intervals. No conclusions.
- Cocns, G. H. The plant diseases of importance in the transportation of fruits and vegetables. 464
Amer. Railway Parish. Freight Asso., Cir. 473-A, 1913. 59 pp. C78
The relation of plant diseases to transportation. The diseases commonly found in shipments of the various kinds of fruits and vegetables; frost injury. Preparation for successful shipping. Illustrations. Diagrams showing recommended loading plans.
- Cruess, W. V. The fermentation organisms of California grapes. 500
Calif. Univ., Pubs. Agr. Sci., vol. 4, no. 1, 1918. C125AG
66 pp.
Refers largely to wine making.

- Essig, E. O. Important dried fruit insects in California. 2
Calif. Dept. Agr., Mo. Bul., vol. 9, no. 3, sup., C12M
1920, p. 119-125.
Moths and beetles infesting dried fruits. Control measures.
- Eustace, H. J. A destructive apple rot following scab. N. Y. 100
(Geneva) Exp. Sta., Bul. 227, 1902, p. 367-389. N43
Pink mold invades the tissue where the epidermis is broken by scab. Greening especially affected.
- Investigations on some fruit diseases. N. Y. Exp. 100
Sta., Bul. 297, 1908, p. 31-43. N43
Apple and peach rots in storage. Sulphur fumigation. The effect of cold storage on the development of the diseases of apples and peaches. Inoculation experiments; blue mold only, developed and caused decay while held in storage for 2 months at 32 degrees.
- Fawcett, G. L. The rot of citrus fruit. Porto Rico Progress, vol. 110
8, no. 1, Dec. 1914, p. 5-7. P33
Rot from *Diplodia Natalensis*, its nature and control. (folio)
- Fawcett, H. S. Stem-end rot of citrus fruits. Fla. Exp. Sta., Bul. 100
107, 1911. 23 pp. F66S
Description and control of the disease. A catalog of rots, spots and blemishes on citrus fruits in Florida is contained in the appendix.
- Fisher, D. F. Factors that influence diseases of apples in storage. 80
Better fruit, vol. 14, no. 3, 1919, p. 3-4. B46
A practical discussion valuable to those engaged in commercial handling.
- Grossenbacher, J. G. Experiments on the decay of Florida oranges. U.S. 1
Dept. Agr., Bur. Plant Indus., Cir. 124, 1913, P69C
p. 17-29.
"Ammoniation" and "melanose". Condition of fruit at maturity, a resultant of the amount of moisture during growing season.
- Halsted, B. D. Decay in the apple barrel. Popular Sci., vol. 43, 470
no. 1, 1893, p. 76-84. P81
Pathology of apple rots as understood in 1893.
- Hawkins, Lou A. Some effects of the brown-rot fungus upon the com- 450
position of the peach. Amer. Jour. Bot., vol. 2, Am36
no. 2, Feb. 1915, p. 71-81.
The pentosan content remains the same, the acid content increases and the total sugar content decreases.

- Link, George K. K. Handbook of the diseases of vegetables occurring under market, storage and transit conditions. U. S. 1
Dept. Agr., Bur. Plant Indus., 1919. 73 pp. P6976H
Designed primarily to aid inspectors of the Bureau of Markets in the detection of plant diseases on the market. Descriptions of diseases and other disturbances apt to affect vegetables upon arrival in the markets. Illustrated with colored photographs.
- Mansfield, A. B. Ripe-rot of stone-fruits. New Zealand Dept. Agr., 23
Jour. Agr., vol. 12, no. 3, Mar. 1916, p. 214-216. N46J
Description and remedies for ripe-rot.
- Martin, Geo. W. Brown blotch of the Kieffer pear. Phytopathology, 464.8
vol. 6, no. 5, May, 1918, p. 234-239. P56
Description.
-
- Orchard experiment with Jonathan spot rot in 1914. 464.8
Abstract in Phytopathology, vol. 4, no. 6, 1914, P56
p. 406.
Experiments carried on in 1914 show results in harmony with those of 1913 described by Melville T. Cook, in "The Jonathan spot rot."
- Morse, W. J. Arsenate of lead as a fungicide for apple scab. Ab- 464.3
stract in Phytopathology, vol. 6, no. 1, 1916, p. 118. P56
Spraying experiments with arsenate of lead gave successful results in four seasons.
- Parker, Wm. B. Control of dried-fruit insects in California. U. S. 1
Dept. Agr., Bul. 235, 1915. 13 pp. Ag84B
The Indian-meal moth and the dried-fruit beetle.
Processing the fruit. Sealed packages.
- Powell, G. Harold. Causes of citrus fruit decay. Calif. Cultivator, 6
vol. 24, no. 15, Apr. 1905, p. 344-345. C12
A preliminary account of the investigations then being carried on by the Bureau of Plant Industry for the control of losses in citrus fruit during transportation and marketing.
-
- The decay of oranges while in transit from California. 1
U. S. Dept. Agr., Bur. Plant Indus., Bul. 123, 1908. P69B
74 pp.
A summary of investigations conducted on a commercial scale and supplemented by laboratory methods when possible which have involved the handling and inspection of large quantities of oranges through all the operations from the trees in California to the markets in the East.

- Reed, H. S. York spot and York skin-crack. Abstract in
Phytopathology, vol. 4, no. 6, 1914, p. 405. 464.8
Both the spot and the skin crack seem to be P56
most abundant on trees under fifteen years of
age.
- Schneider, O. Investigations on the growth and spread of de- 17
cay fungi in storage fruit. Landw. Jahrbuch L23
Schweiz, 25, 1911, p. 225-246.
Relation of temperatures and ripeness to de-
cays. (German)
- Smith, C. O. Sour rot of lemon in California. Phytopathol- 464.8
ogy, vol. 7, no. 1, 1917, p. 37-41. P56
A soft storage decay characterized by a pe-
culiar sour odor. Description, cause.
- Stakman, E. C. A fruit spot of the Wealthy apple. Phytopath- 464.8
ology, vol. 4, no. 4, 1914, p. 333-335. P56
Prevalent in Minnesota. Investigations made but
no definite conclusions reached.
- Stevens, F. L. A destructive strawberry disease. Science, new 470
ser., vol. 30, no. 1017, June, 1914, p. 949-950. Sci2
Investigations at Harmond, indicate that molds
and leaks are caused by the fungi. Botrytis and
Rhizopus.
-
- Some problems of plant pathology in reference to 464.8
transportation. Phytopathology, vol. 5, no. 2, P56
Apr. 1915, p. 108-110.
Pathological problems concerning changes occurring
in fruit in transit are important but not widely
studied.
-
- Some new strawberry fungi. Phytopathology, vol. 6, 464.8
no. 3, 1916, p. 253-267. P56
Descriptions and illustrations.
- Stevens, H. E. Citrus canker. Fla. Exp. Sta., Bul. 128, 1915, 100
20 pp. P66S
Disease affects bark, leaves and fruit. History,
appearance and eradication.
- Stevens, N. E. Some changes produced in strawberry fruits by 464.8
Rhizopus Nigricans. Phytopathology, vol. 7, no. 3, P56
1917, p. 178-184.
The bio-chemical changes brought about by this
fungus on the various constituents of the straw-
berry.

- Stevens, N. E. The effect of endrot fungus on cranberries. 450
 Amer. Jour. Bot., vol. 6, no. 6, 1919, Am36
 p. 235-241.
 A chemical and histological study of the endrot
 fungus. Illustrations.
-
- Rhizopus rot of strawberries in transit. U. S. 1
 Dept. Agr., Bul. 531, 1917, 20 pp. Ag84B
 Description of the rot and factors that accel-
 erate or restrict its development in transit.
- Turley, H. E. New fruit fungi found on the Chicago market. 470
 Science, vol. 50, Oct. 17, 1919, p. 375-376. Sci2
 Description of diseases rather than a study of
 the fungi.
- See also Cold storage, fruits; Handling, fruits; Precooling;
 Ripening and respiration, fruits.

VEGETABLES

- A bacterial rot of onions. West Indies Dept. Agr., West Indian
 Bul., vol. 5, 1904, p. 134-139. 8
 Experiments indicate that keeping onions dry W522
 is the one important point in the prevention
 of bacterial rot.
- Bailey, F. D. Powdery scab of potatoes in Oregon. Science, 470
 vol. 42, Sept. 24, 1915, p. 424-425. Sci2
 Short. First appearance of powdery scab west
 of Rocky Mountains.
- Barre, H. W. Sweet potato rots. S. C. Exp. Sta., Rept. 1911, 100
 p. 49-51. So8
 A report of tests regarding methods of storing
 sweet potatoes to prevent rots.
- Beal, W. H. Storage of sweet potatoes. Rotting of potatoes 1
 in storage. U. S. Dept. Agr., Farm Bul. 273, Ag84F
 1906, p. 9-11.
 Practical measures for preventing storage rots
 of sweet potatoes as determined at the Alabama,
 Maine and Vermont Stations.
- Berry, James B. Diseases of sweet potatoes. Ga. St. Coll. of 276
 Agr., Bul. 161, 1918. 8 pp. G29B
 Harvesting. Field diseases and molds. Storage
 house conditions.

- Carpenter, C. W. Some potato tuber-rots caused by species of *Fusarium*. U. S. Dept. Agr., Jour. Agr. Research, vol. 5, no. 5, Nov. 1915, p. 183-210. Method of testing. Dry rot, jelly-end rot. Inoculation. Eight plates. 1 Ag84J
- Fraser, W. P. Storage rots of potatoes, and other vegetables. Quebec Soc. Protec. Plants, Rept. 6, 1913-14, p. 50-51. Description of rots common to potatoes in storage; measures for protection. 464.9 Q3
- Gussow, H. J. The storage rots of potatoes. Canada Exp. Farms, Rept. 1913, p. 480-492. Description of potato storage rots due to organisms. Suggestions for proper storage methods. 101 Ex6R
- Harter, L. L. The decay of cabbage in storage. U. S. Dept. Agr., Bur. Plant Indus., Cir. 39, 1909. 8 pp. The results of investigations concerning the decay of cabbage in storage; suggestions for control. 1 P69C
- _____ Sweet potato diseases. U. S. Dept. Agr., Farm Bul. 1059, 1919, p. 19-21. Description of the five most important storage rots with some suggestions for control. 1 Ag84F
- _____ Sweet potato storage rots. U. S. Dept. Agr., Jour. Agr. Research, vol. 15, no. 6, p. 337-68. Description of 17 fungi responsible for storage rots in sweet potatoes. Bibliography. 1 Ag84J
- Haskell, R. J. A *Fusarium* tuber and stem rot of potato. Abstract in Phytopathology, vol. 6, no. 1, 1916, p. 106-107. A virulent stem and tuber rot which affects potatoes in storage. 464.8 P56
- _____ Potato wilt and tuber rot caused by *Fusarium Eumartii*. Phytopathology, vol. 6, no. 4, 1916, p. 321-327. Inoculations show that *Fusarium Eumartii* may cause both a vine wilt and a tuber rot. 464.8 P56
- Humbert, J. G. The neck rot of white onions. Ohio Exp. Sta. Mo. Bul., vol. 1, no. 6, 1916, p. 76-180. Control by sanitation and fumigation. 100 Oh3S

- Jamiésen, Clara O. *Phoma Destructiva*, the cause of a fruit rot of the tomato. U. S. Dept. Agr., Jour. Agr. Research, vol. 4, no. 1, 1915. 20 pp. An active ground parasite of green and ripe tomatoes which causes rot. 1 Ag84J
- Link, G. K. K. A physiological study of two strains of *Fusarium* in their causal relation to tuber rot and wilt of potato. Botan. Gaz., vol. 62, no. 3, Sept. 1916, p. 169-209. Experimental infection. Habits of growth and carbon sources of the two organisms. 450 B652
- Lutman, B. F. Some observations on ordinary beet scab. Phytopathology, vol. 5, no. 1, 1915, p. 30-34. The beet scab is caused by the same organism as the potato scab. 464.8 P56
- McAlpine, D. Experimental results in their relation to bitter pit. Bitter Pit Investigation (Australia), Rept. 4, 1914-15. 178 pp. A general summary of the bitter pit investigations in Australia including:
 (1) Development of bitter pit after apples are gathered.
 (2) Bio-chemical researches on bitter pit. For the most part apples become affected while still on the tree.
 (3) Cold storage experiments.
 There are five reports of the Bitter Pit Investigation in which the disease of bitter pit is discussed at some length. 464.06 M11B
- Melchers, L. E. Black spot of pepper. Abstract in Phytopathology, vol. 7, no. 1, 1917, p. 63. Renders fruit unsalable. Sweet peppers are most susceptible than the hot varieties. 464.8 P56
- Melhus, I. E. A *Phoma* rot of Irish potatoes. Abstract in Phytopathology, vol. 4, no. 1, 1914, p. 41. Studies of blight when celery is stored in carlots at 31 to 32 degrees. 464.8 P56
- _____. Silver scurf, a disease of the potato. U. S. Dept. Agr., Bur. Plant Indus., Cir. 127, 1913, p. 15-24. Causes disfiguration and abnormal shrinkage. 1 P69C
- Munn, M. T. Neck-rot disease of onions. N. Y. Exp. Sta., Bul. 437, 1917, p. 365-450. Causes, factors favorable to infection, methods of control. 100 N48

- | | | |
|--------------------|--|-----------------|
| Orton, W. A. | Watermelon Diseases. U. S. Dept. Agr.,
Farm Bul. 821, 1917, p. 6-18.
Description of rots and their control. | 1
Ag84F |
| Osmun, A. Vincent | Ring-spot of cauliflower. Phytopathology,
vol. 5, no. 5, 1915, p. 260-265.
Description, causes. No suggestions for con-
trol. Affects cabbage also. | 464.8
P56 |
| Pethybridge, G. H. | Observations on the cause of the common dry
rot of the potato tuber in the British Isles.
Roy. Dublin Soc., Sci. Proc., new ser., vol.
15, no. 21, 1917, p. 193-222.
Study of fungus causing dry rot. | 501
D85 |
| Ramsey, G. B. | Tuber rot in potato shipment. Me. Coll. Agr.,
Ext. News Letter 95, 1919.
Tuber rot prevalent in 1918 crop. | 275.29
M281E |
| Reddick, D. | Decay of celery in storage. Abstract in Phy-
topathology, vol. 4, no. 1, 1914, p. 45.
Report on a late blight disease which causes
storage rot in celery. | 464.8
P56 |
| Rosenbaum, J. | The origin and spread of tomato fruit rots in
transit. Phytopathology, vol. 8, no. 11,
1918, p. 572-580.
The conclusion is reached that most tomato
rots originate in the field and spread during
transit. | 464.8
P56 |
| Shapovalov, M. | Effect of temperature on germination and
growth of the common potato-scab organism.
U. S. Dept. Agr., Jour. Agr. Research, vol. 4,
no. 2, May 15, 1915, p. 129-133.
Results of experiments on several strains
isolated from diseased potatoes from Maine,
Vermont and Wisconsin. | 1
Ag84F |
| Sherbakoff, C. D. | Buckeye rot of tomato fruit. Phytopathology,
vol. 7, no. 2, 1917, p. 119-129.
Description, cause, control. | 464.8
P56 |
| Stevens, F. L. | Black spot of onion sets. Ill. Exp. Sta.,
Bul. 220, 1919, p. 507-32.
A study of the three types of black spot
which affect onions to the extent of 60 to
80 per cent as shown by examinations in mar-
kets and stores. Illustrations. | 100
116S |

- Stewart, F. C. Blackheart and the aeration of potatoes in storage. 100
N. Y. Exp. Sta., Bul. 436, 1917, p. 321-362. M48
Insufficient aeration causes blackheart; size of
tuber apparently not important. Experiments to
determine how deeply it is safe to pile potatoes.
- Taubenhaus, J. J. Soil stain and pox, two little known diseases of 464.8
the sweet potato. Abstract in Phytopathology, P56
vol. 4, no. 6, 1914, p. 405.
The soil stain is a disease of the epidermis only.
The pox is similar to the scab of white potatoes.
-
- Studies in the control of storage rots of the sweet 464.8
potato. Abstract in Phytopathology, vol. 6, no. 1, P56
1916, p. 106.
The necessity of ventilation, fumigation and the
use of fungicides.
-
- Recent studies of some new or little known diseases 464.8
of the sweet potato. Phytopathology, vol. 4, no. 4, P56
1914, p. 305-317.
Studies on black rot, charcoal rot, Java black rot,
stem rot and ring rot.
- Tolaas, A. G. A bacterial disease of cultivated mushrooms. 464.8
Phytopathology, vol. 5, no. 1, 1915, p. 51-53. P56
Value of mushrooms, not yield, is diminished.
- Walker, J. G. Control of neck rot and Anthracnose of onion sets. 464.8
Phytopathology, vol. 8, no. 2, 1918, p. 70. P56
Prevention of neck rot by artificial drying.
- Wolf, Frederick A. Fruit rots of egg plant. Abstract in Phytopathol- 464.8
ogy, vol. 4, no. 1, 1914, p. 38. P56
Excretion of fungus, *Ascochyta Hortorum*, causes
disintegration of tissues.

See also

Common storage, vegetables; Transportation.

DEHYDRATION.

Bioletti, F. T.	Dried wine grapes. Calif. Bd. St. Viticul. Com., Bul. 15, 1919, p. 6-28. An evaporator for wine grapes. Illustrations.	95.9 C12B
	Saving raisins by sulfuring. Calif. Exp. Sta., Cir. 211, 1919. 4 pp.	100 C12S
	Tests at Kearney Experiment Vineyard. Description of sulfuring hood; plans, specifications, illustrations.	
Bliss, R. K.	Home fruit and vegetable drying. Iowa St. Coll. Agr., Ext. Bul. 65, 1918. 4 pp. Tables showing preparation, temperature, appear- ance of dried product. Description of various simple driers for home use. Elementary.	275.2 I09
Brown, F. R.	The drying of prunes. Oreg. Exp. Sta., Crop Pest and Hort. Rept. 1911-1912, p. 51-58. Tunnel and stack dryers. Description of the process.	100 Or3
Caldwell, J. S.	Evaporation of apples. Wash. Exp. Sta., Bul. 131, 1916. 110 pp. Extensive treatment. Types of evaporators, cost of construction, equipment. Grading and packing the dried fruit. Includes a review of litera- ture relating to the subject.	100 W27E
	Farm and home drying of fruits and vegetables. U. S. Dept. Agr., Farm. Bul. 984, 1918. 61 pp. A discussion of the possibilities, principles, methods and preparation of fruits and vegetables for drying.	1 Ag84F
Christie, A. W.	The University farm evaporator. Calif. Dept. Agr., Mo. Bul., vol. 9, no. 3, sup., 1920, p. 125-131. Description, ground plan. Facts deduced from experiments in treatment of grapes.	2 C12M
Corbett, L. C.	Raspberries. U. S. Dept. Agr., Farm. Bul. 213, 1905, p. 16-35. Harvesting the crop. Curing raspberries by evaporation and sun drying.	1 Ag84F
Cruess, W. V.	The evaporation of vegetables. Calif. St. Com. Hort., Mo. Bul., vol. 3, no. 3, 1919, p. 93-100, Types of evaporators for commercial and domestic uses.	2 C12M
	Evaporators for prune drying. Calif. Exp. Sta., Cir. 213, 1919. 30 pp. Theory of evaporation. Construction and use of various kinds of evaporators for commercial use.	100 C12S

- Cruess, W. V. Types of evaporators. Calif. Dept. Agr., Mo. Bul. 2
vol. 9, no. 3, sup., 1920, p. 104-113. C12M
Discussion of principles. General forms:
Natural draft, forced draft, distillation.
- Dosch, Henry E. Evaporation of fruits. Calif. Fruit Grow., 80
vol. 19, nos. 8 and 9, Aug. 1896, p. 143, 163. C12
Heat and circulation are the great principles.
Economy in labor and fuel. Evaporating prunes,
pears, apples.
- Drying of fruits and vegetables and preservation of vegetables by 7
fermentation and salting. Ontario Dept. Agr., On8C1
Cir. 12, 1918. 23 pp.
Methods, apparatus and storage for domestic
rather than commercial use.
- Gould, H. P. Evaporation of apples. U. S. Dept. Agr., 1
Farm. Bul. 291, 1907. 38 pp. Ag84F
Evaporators and appliances. The process of
drying. Handling and storing the dried fruit.
- Howard, G. L. C. The sun drying of vegetables. Quetta, Fruit 107.5
Exp. Sta., Bul. 8, 1918. 20 pp. Q3
Methods for sun drying vegetables in India and
suggestions for application in the United States.
- Hudson, A. W. The evaporator and rain-damaged prunes. Calif. 2
Dept. Agr., Mo. Bul., vol. 9, no. 3, sup., 1920, C12M
p. 118-119.
An evaporator to be used in an emergency,
auxiliary to sun-drying operations.
- Johnson, M. O. Drying as a method of food preservation in 275.29
Hawaii. Hawaii Exp. Sta., Ext. Bul. 7, 1918. H31
31 pp.
Principles of drying. Three methods: Air dry-
ing, heated-air drying, vacuum drying. Des-
cription of a home-made air drier used in
Hawaii. Effect of drying on the banana,
sweet potato, Irish potato.
- Kirkpatrick, E. L. Drying fruits and vegetables in New York 275.29
State. N. Y. St. Coll. Agr., Cornell Read. N48C
Course for Farm, Les. 132, 1918, p. 187-208.
Kiln evaporator, tower drier, dehydrator. Gen-
eral directions for preparation, processing and
storing various fruits and vegetables.

- Kraeger, F. O.: Home drying of fruits and vegetables in Wash- 275.29
ington. Wash. St. Coll., Ext. Serv. Pub., ser. W27P
1, no. 57, 1919. 31 pp.
Construction and operation of driers. Special
processes. Preparation of various fruits and
vegetables. Tables made up from reports of
the Weather Bureau show the varying conditions
of sunshine, temperature and humidity in differ-
ent parts of the State in order that their rela-
tion to the principles of drying may be studied.
- Macfarlane, M. Preservation of fruits and vegetables for home 101
use. Can. Dept. Agr., Exp. Farms, Bul. 93, C53B
1918, p. 18-20.
Methods, directions and time tables for differ-
ent vegetables.
- Peglion, V. Potato drying. R. Accad. Lincei, Comitato 329.8
Sci. Alimen. Pubblicazioni, no. 5, 1918. 11 pp. R66
Methods and machinery. (Italian)
- Prescott, S. C. Commercial dehydration. Amer. Acad. Polit. and 280.9
Social Sci., Annals, vol. 83, no. 172, May 1919, Am34
p. 42-69.
History of dehydration in America. Systems. Ad-
vantages. Reduction in weight and bulk of various
vegetables. Nutritive value. Desirability as
compared with canned product. Tables.
- Preservation of food. Ohio Agr. Coll., Ext. Bul., vol. 14, no. 1, 275.29
1918-19, p. 12-19. Oh32
Drying, fermentation, salting. Elementary;
home use.
- Razous, P. Theory and practice of industrial drying. 2d. 309
ed. rev., Paris, 1919. 252 pp. R21
Principle of evaporation. Types of hot air
driers, heating systems. Commercial drying of
a variety of materials including fruit and vege-
tables. (French)
- Rutishauser, J. Potato drying. Berne, Ferd Wyss, 1918. 51 pp. 75
Potato drying as carried on in Germany. (German) R93
- Showell, H. Dipping and drying the Sultana. South Aus. 23
Dept. Agr., Jour., vol. 20, no. 8, Mar. 1917, Sc84
p. 667-671.
The fruit, the dip and drying.

Tufts, W. P. The Oregon tunnel evaporator. Calif. Dept.
Agr., Mo. Bul., vol. 9, no. 3, sup., 1920, 2
p. 131-133. C12M
Fundamentals, operation. The favorite type
for prunes.

Wood, Bessie S. Drying and brining fruits and vegetables. Ga. 276
Coll. Agr., Bul. 156, vol. 7, no. 1, 1918. G29B
12 pp.
Drying: Sun, cookstove, kiln. Brining for
domestic use.

See also

Common storage, vegetables; Decays and
physiological disturbances; Handling, fruits;
Packing, packages and grades; Precooling;
Transportation.

HANDLING

FRUITS

- | | | |
|-------------------|---|-------------|
| Ashby, T. H. | How to prevent decay of our citrus fruits. Fla. Agr., vol. 31, no. 39, Sept. 1904, p. 611. Ways of decreasing the enormous losses in the transit of citrus fruit. | 6
F66 |
| Busey, Samuel C. | The gathering, packing, transportation and sale of fresh vegetables and fruits. New York, 1875. 15 pp. Competent inspection and free markets for producers. | |
| Campbell, J. A. | Co-operation, central packing, and cool storage in the fruit industry. New Zealand Dept. Agr., Jour. Agr., vol. 17, no. 6., Dec. 1918, p. 337-344. General discussion of the problems involved in handling fruit from orchard to market. | 23
N48J |
| Careful handling, | precooling, cold storage and transportation investigations. Brit. Col. Dept. Agr., Repts. 8, 9, 1913, 1914, p. 37-38, 84-86. Packing and cutting rhubarb. Shipping strawberries and raspberries. Precooling plant. Cold storage of apples. | 7
B77R |
| Corbett, L. C. | Color as an indication of the picking maturity of fruits and vegetables. U. S. Dept. Agr., Year-book 1916, p. 99-106. Results of experiments conducted by the Department of Agriculture. Apples - colored plates showing various stages of maturity; relation to storage period. Tomatoes - conditions determining storage. | 1
Ag64Y |
| DeOng, E. R. | What hinders dried fruit sales. Calif. St. Com. Hort., Mo. Bul., vol. 8, no. 5, 1919, p. 240-243. Insect infestation of dried fruit. | 2
C12M |
| Dyer, Francis J. | Improved methods of fruit-handling. Amer. Rev. of Rev., vol. 39, no. 3, 1909, p. 305-310. A survey of handling and precooling investigations and general fruit shipping methods up to 1909. | 110
Am32 |
| Farrington, E. I. | When to pick the fruit. Coun. Life, vol. 32, no. 6, Oct. 1917, p. 80. When to pick different varieties for domestic use. | 80
C832 |
| Fawcett, H. S. | Spotting of citrus fruits. Calif. St. Com. Hort., Mo. Bul., vol. 4, no. 9, Sept. 1915, p. 434-435. Careless handling especially during cool, moist weather causes "green spots." | 2
C12M |

Franklin, H. J.	Report of the cranberry substation for 1915. Mass. Exp. Sta., Bul. 168, 1916, p. 5-24. Factors affecting the amount of shrinkage of cranberries in storage and in transportation.	100 M38H
	Report of the cranberry substation for 1916. Mass. Exp. Sta., Bul. 180, 1917, p. 183-239. Results of various methods of hauling and storing cranberries.	100 M38H
Gould, H. P.	Peach growing. New York, 1918. 426 pp. A general treatment of the subject of grow- ing peaches which contains some discussion of picking, packing and transportation.	93 G73
Greene, Laurenz.	Proper handling of frozen apples. Ind. Hort. Soc., Trans. 1917, p. 271-276. Practical experiences show that freezing is not injurious if apples are allowed to thaw slowly. Discussion.	81 In2
Gunderson, A. J.	A trip to the Fort Valley peach district of Georgia. Ill. Hort. Soc., Trans., new ser., vol. 50, 1916, p. 168-171. Picking, packing, marketing. The Georgia Fruit Exchange.	81 I16
Hood, S. C.	A detailed description of a new machine for peeling citrus fruits. U. S. Dept. Agr., Bul. 399, 1916, p. 13-19. Illustrations. Suggestions for operating.	1 Ag84B
Iorns, M. J.	Picking and packing citrus fruits. Porto Rico Exp. Sta., Cir. 8, 1909. 18 pp. Field and packing house operations. Sug- gestions concerning the processes involved from curing to transportation to market.	100 P83C
Kains, M. G.	Do you know when fruit is ripe? Garden Mag., vol. 28, no. 1, Aug. 1918, p. 17-18. How and when to pick various kinds of fruit.	80 G1612
Lewis, C. I.	Harvesting and preparing prunes for evapora- tion. Better Fruit, vol. 14, no. 2, 1919. 6 pp. Methods and time of picking, sorting, brown rot infection, grading, dipping, rinsing.	80 B46
Lewis, I. P.	Using an apple sizing machine. Ohio Exp. Sta., Mo. Bul., vol. 4, no. 7, July 1919, p. 221-224. Types, Operation.	100 Oh3S

- McKay, A. W. Citrus fruit handling and storage. Fla. Hort. Soc., Proc. 26th Meet., 1913, p. 30-45. 81
F66
Relation of careful handling to keeping qualities of citrus fruits as seen in Bureau of Plant Industry tests in Florida.
- McKinstry, S. Sorting out frosted oranges and lemons. Sci. Amer., vol. 111, no. 25, Dec. 19, 1914, p. 512. 470
Sci25
Description of a water separator which determines the specific gravity of fruit so that it is possible to pick out the frozen specimens.
- Mann, C. W. The handling of Porto Rican oranges, grape fruit and pineapples. Porto Rico, Insular Exp. Sta., Bul. 7, 1914. 59 pp. 100
P83
Relation of careful handling to the decay in transit of Porto Rican fruits. Twenty-four illustrations.
- _____ The handling and storage of apples. Me. Dept. Agr., Bul., vol. 17, no. 3, 1918, p. 77-81. 2
M28B
General discussion of factors entering into successful marketing.
- _____ Keeping quality of citrus fruit treated to eliminate frosted fruit. Calif. Cultivator, vol. 38, no. 19, 1912, p. 582, 599, 607. 6
C12
A review of the results of using distillate or kerosene oil and of alcohol in separating frosted fruit as regards flavor and decay.
- Markell, E. L. The handling of plant-ripened pineapples. (Unpublished) U. S. Dept. Agr., Bur. Mar. and Crop Est., files.
Maturity and picking. Demonstration of careful handling and proper refrigeration in successfully marketing hard, ripe pineapples.
- Mason, A. F. Harvesting, packing and marketing the apple crop. Pa. St. Coll., Ext. Cir. 50, 1916. 44 pp. 275-29
P38C
Picking - Time, receptacles. Grading - New York Law, methods, machinery. Packing - Houses, packages. Shipping. Storage. Marketing.
- Meeking, E. Report on experiment in picking, packing, handling, cool-storage, and transportation of peaches. Victoria Dept. Agr., Jour., vol. 14, no. 1, 1916, p. 41-55. 23
V66J
Tabulated results of experiment.
- Newman, C. C. A chemical process of peeling peaches. S. Car. Exp. Sta., Bul. 196, 1918. 8 pp. 100
S08
The process, equipment. Plan for vat. Illustrations.

- Peaches and other fruits in England. U. S. Dept. Agr., Sec. 1
Foreign Mar., Cir. 1, 1895. 2 pp. F75C
Suggestions for harvesting and packing peaches
for the English market.
- Powell, G. Harold. The decay of oranges while in transit from 1
California. U. S. Dept. Agr., Bur. Plant Indus., P69B
Bul. 123, 1908. 79 pp.
The results of investigations covering several
years in connection with field and shipping condi-
tions. Charts showing results of careful handling
and precooling. This publication covers work that
opened a new epoch in fruit transportation.
-
- The handling of fruit for transportation. U. S. 1
Dept. Agr., Yearbook 1905, p. 349-362. Ag84Y
A survey of increased shipments of perishables,
causes of decay, early attempts with refrigeration
in transit and cooling before shipment.
- Ramsey, H. J. Factors governing the successful shipment of red 1
raspberries from the Puyallup Valley. U. S. Dept. Ag84B
Agr., Bul. 274, 1915. 37 pp.
Experiments made in the seasons 1911, 1912, 1913,
with the handling, precooling and shipping of rasp-
berries. Recommendations.
-
- The handling and shipping of fresh cherries and 1
prunes from the Willamette Valley. U. S. Dept. Ag84B
Agr., Bul. 331, 1916. 28 pp.
The results of handling and precooling experiments
with sweet cherries and plums during the seasons of
1911 and 1913.
-
- Handling and shipping citrus fruits in the Gulf 1
States. U. S. Dept. Agr., Farm. Bul. 696, 1915. Ag84F
28 pp.
A practical discussion of the subject, covering
careful handling, precooling, methods of shipment
and cold storage.
-
- Lemon handling. (Unpublished) U. S. Dept. Agr.,
Bu. Mar. and Crop Est., files.
Extensive handling and storage experiments carried
on in California.
- Rogers, J. M. A simple and effective method of protecting citrus 464.8
fruits against stem-end rot. Phytopathology, vol. P56
7, no. 5, Oct. 1917, p. 361-367.
Citrus fruits may be protected to a great degree by
shellacking the stem-end.

- Shamel, A. D. A humidifier for lemon curing rooms. U. S. Dept. Agr., Bul. 494, 1917: 10 pp. 1 Ag84B
Design and operation of a humidifier.
- Sievers, A. F. A preliminary study of the forced curing of lemons as practiced in California. U. S. Dept. Agr., Bureau of Plant Indus., Bul. 232, 1912: 38 pp. 1 P69B
A report on an investigation made to ascertain the effectiveness and control of factors involved in the forced curing of lemons. The investigation concerns the process rather than the effect of the treatment.
- Smith, Edwin. Methods of fruit picking and handling. Brit. Col. Dept. Agr., Hort. Br., Cir. 27, 1912. 7 pp. 82 B77
Injuries to fruit in harvesting and shipping and the reduction of losses by careful handling.
- Methods of handling basket fruits. Canada Dept. Agr., Dairy and Cold Stor. Com., Bul. 52, 1917 44.9 C15B
13 pp.
- Methods in use at the Grimsby precooling plants to reduce the cost of handling fruit in and out of the warehouse.
- Stokes, F. G. The dried pear industry. Calif. St. Com. Hort., Mo. Bul., vol. 6, no. 5, 1917, p. 12-19. 2 C12M
Suggestions for handling pears preparatory to drying.
- A story about sawdust. World's Work, vol. 28, no. 4, 1914, p. 380. 110 W39
Shipping grapes in sawdust.
- Stubenrauch, A. V. Factors governing the successful shipment of oranges from Florida. U. S. Dept. Agr., Bul. 63, 1914. 50 pp. 1 Ag84B
Results of handling, precooling and shipping investigations lasting seven years.
- Fruit handling and precooling investigations. 80 B46
Better Fruit, vol. 7, no. 5, Nov. 1912, p. 59-65.
An article with tables showing results of shipping grapes, oranges, raspberries, cherries and prunes.
- The handling of deciduous fruits on the Pacific Coast. U. S. Dept. Agr., Yearbook 1909, p. 365-374 1 Ag84Y
Description of harvesting and shipping methods.
Precooling.
- The relation of handling to decay in California navel oranges; season of 1910-11. U. S. Dept. Agr., Bur. Plant Indus., Bul. 676, 1911. 7 pp. 1 P69B
The relation of mechanical injuries and natural defects to decay, and the effect of washing, brushing, careful handling, and high packing on decay.

- | | | |
|-----------------|--|-------------|
| Swope, C. A. | Planting, gathering and marketing the cherry.
Kans. Hort. Soc., Trans., vol. 34, 1917, p. 80-83.
Packing. Marketing; need of organization. | 81
K13 |
| Tanner, J. M. | Spraying, harvesting and marketing the peach.
Ill. Hort. Soc., Trans., new ser., vol. 51,
1917, p. 384-388.
Picking, packing, grading. Discussion. | 81
I16 |
| Tenny, Lloyd S. | The decay of Florida oranges while in transit
and on the market. U. S. Dept. Agr., Bur,
Plant Indus., Cir. 19, 1908. 8 pp.
Results of experiments in handling Florida
oranges carried on in 1906-1907. | 1
P69C |
| Walker, Ernest. | Suggestions on the storage of apples. Ark.
Exp. Sta., Cir. 13, 1911. 4 pp.
Handling apples for storage. | 100
Ar42 |
| Waugh, Frank A. | Fruit harvesting, storing, marketing. New
York, 1914. 224 pp.
The fruit market; picking; grading and packing;
the fruit package; fruit storage. | 93
W353F |
| Webber, H. J. | A study of the effects of freezes on citrus in
California. Calif. Exp. Sta., Bul. 304, 1919,
p. 244-321.
The freeze of 1913 in California. Changes that
take place in frozen oranges and lemons. A test
of the efficiency of orchard heating. | 100
C12S |
| Willits, R. L. | Causes of unnecessary decay in lemons. Calif.
St. Com. Hort., Mo. Bul., vol. 5, no. 6, 1916,
p. 213-216.
Handling lemons to avoid decay. | 2
C12M |
| Winslow, R. M. | Careful handling, precooling and cold storage
investigations. Brit. Col. Dept. Agr.,
Rept. 8, 1913, p. 37-38.
Investigations concerning handling and storing
rhubarb, strawberries, raspberries and apples. | 7
B77R |
| Young, W. J. | Handling apples for storage. Wash. Exp. Sta.,
Pop. Bul. 72, 1914. 8 pp.
Pick fruit when hard ripe and place in storage
as soon as possible. | 100
W27E |

See also

Cold storage, fruits; Common storage, fruits;
Transportation.

VEGETABLES

Brehm, C. E.	Harvesting peas. Coun. Gent. vol. 81, no. 21, 1916, p. 1073. Best methods for harvesting peas.	6 C833
	The sweet-corn harvest. Coun. Gent., vol. 81, no. 24, 1916, p. 1198. Some general suggestions for successful harvesting.	6 C833
Butler, O.	Effect of wounds on loss of weight of potatoes. Amer. Soc. Agron., Jour., vol. 11, no. 7, Oct. 1919, p. 304-305. Experiments on uninjured and bruised potatoes stored for 111 days at 8 to 10°C. Tables.	4 Am34P
Carver, Geo. W.	Saving the sweet potato crop. Ala. (Tuskegee) Bul. 10, 1906. 14 pp. Directions for handling sweet potatoes to prevent decay in storage.	100 A115B
Cole, E. W.	Pea curing in Texas. Tex. Dept. Agr., Bul. 18, new ser. 6 pp. Equipment and procedure.	2 T312B
Experiments on the	storage of onions. The Agr. News (Barbados), vol. 10, no. 238, 1911, p. 191. A test on a small scale to determine the value of treating onions with slaked lime, flowers of sulphur, carbon dioxide gas, Bordeaux mixture, 1-1000 corrosive sublimate solution, and sulphur dioxide gas.	8 W525A
Fitch, C. L.	The potato industry of Colorado. Colo. Exp. Sta., Bul. 175, 1910, p. 12-14, 34-42, 45-60. A discussion of all phases of the potato industry in Colorado including quality, protection from frost, diseases. Potato cellar construction and management. Marketing.	100 C71S
Grimes, A. M.	Handling and loading southern new potatoes. U. S. Dept. Agr., Farm Bul. 1050, 1919. 18 pp. "Don'ts" for potato diggers. Grading. Loading the cars.	1. Ag847
Howard, H. M.	The growing and marketing of squashes, melons and cucumbers. Mass. St. Bd. Agr., Bul. 5 (3rd ed. rev.), 1918, p. 116-125. General discussion including suggestions for successful harvesting.	2 M38B
Hull, M.	Harvesting sweet potatoes. La. Agr. Coll., Ext. Cir. H-69, 1919. (Mimeographed). Digging. Crates.	275.29 L93H

- Hull, M. Sweet potato storage house disinfection. 27275.29
La. Agr. Coll., Ext. Cir. H-70, 1919 (Mimeographed). 193H
Application of formaldehyde.
- McKay, A. W. The handling and transportation of cantaloupes. 1
U. S. Dept. Agr., Farm Bul. 1145, 1921. 21 pp. Ag84F
(Revision of Mar. Doc. 9 and 10).
Investigations show that careful handling decreases
mold and decay in cantaloupes. Beneficial results
from picking at proper maturity and from shipping
without wrapping.
- Macoun, W. T. Digging and storing of potatoes. Canada Dept. Agr., 101
Exp. Farms, Pam. 15. 4 pp. C332
Suggestions for digging potatoes. Temporary and
cooperative storage.
- Malpeaux, L. Harvesting and storing potatoes. Vie Agr. Rurale, 14
vol. 6, no. 40, Sept. 1916, p. 238-244. V67
Time and methods of harvesting and storing.
Directions for proper storage conditions. Comparison
of composition of lots stored in pits and in cellars.
(French)
- Maturity of Cauliflower affects shrinkage. Market Grow. Jour., 6
vol. 24, no. 6, 1919, p. 230. M34
Experiments at Oregon Station to determine the re-
lation of time of cutting to loss in weight.
- More, C. T. Commercial handling, grading and marketing of pota- 1
toes. U. S. Dept. of Agr., Farm. Bul. 753, 1917. Ag84F
42 pp.
Special attention is given to sizing, grading, stand-
ardization, containers, brands.
- Newman, C. L. Sweet potato experiments. Ark. Exp. Sta., Bul. 72, 100
1902, p. 40-43. Ar42
Treatment for storage.
- Pittuck, B. C. Cabbage. Tex. Exp. Sta., Bul. 69, 1903, p. 27-28. 100
Cutting. Packing. Suggestions for ventilating T31S
in cars.
- Proper lettuce harvesting. Coun. Gent., vol. 81, no. 9, Feb. 26, 6
1916, p. 452. C833
Careless cutting and packing is the cause of much
loss.
- Round, L. A. Preservation of vegetables by fermentation and salt- 1
ing. U. S. Dept. Agr., Farm. Bul. 881, 1917. 11 pp. Ag84F
Principles, equipment, procedure.

- Stewart, F. C. Formaldehyde gas injury to potato tubers. Abstract in *Phytopathology*, vol. 4, no. 1, 1914, p. 38. 464.8
Conditions under which fumigation with formaldehyde P56
gas results in injury. Formaldehyde injuries show
depressed areas of dead brown tissue.
- Thompson, H. C. Asparagus. U. S. Dept. Agr., Farm. Bul. 829, 1917, 1
p. 9-12. Ag84F
Cutting, packing.
- Treatment of frozen potatoes. *Sci. Amer. Sup.*, vol. 85, no. 2198, 470
Feb. 16, 1918, p. 99. Sci25C
A drying process not practicable on a commercial scale.
- Waid, C. W. Muskmelon culture in Michigan. *Mich. Exp. Sta.*, 100
Spec. Bul. 95, 1919, p. 11-13. M58S
Harvesting, marketing. General discussion.
- Wheeler, Frank. Growing and marketing asparagus. *Mass. St. Bd.* 2
Agr., Bul. 5 (3rd ed. rev.), 1918, p. 159-163. M38B
Cutting, length, bunches, tying machines.
- Young, Robt. A. The dasheen, a root crop for the Southern States. 1
U. S. Dept. Agr., Bur. Plant Indus., Cir. 127, 1913, P69C
p. 31-33.
Harvesting, grading, storage.

ICE HOUSE AND COLD STORAGES

- Blair, J. C. Cold storage on the farm. Amer. Agr., vol. 72, nos. 14, 15, Oct. 1903, p. 268-270; 288, 290. Specifications, construction, plans for a cold storage. 6 Am3
- Bonham, C. M. Precooling and fruit storage investigations. Canada Dept. Agr., Agr. Gaz., vol. 6, no. 2, 1919, p. 141-142. The work at the Grimsby Warehouse in 1918. 7 Cl6G
- Bowen, John T. Ice houses and the use of ice on the dairy farm. U. S. Dept. Agr., Farm. Bul. 623, 1915. 24 pp. 1 Ag84F
How to build insulated and uninsulated ice houses. The farmer's ice house - construction, insulation, drainage, waterproofing. Plans. Written especially for the dairy farmer.
- Central cold storage warehouse, Chicago. Ice and Refrig., vol. 53, no. 4, Oct. 1917, p. 121-126. A description of one of the most up-to-date cold storage warehouses; capacity 3 million cubic feet. Building, insulation, machinery, refrigeration. Plans, illustrations. 295.8 Ic2
- Cold-air refrigeration plant. Power, vol. 42, no. 20, 1915, p. 674. Description of a model packing house on the Pacific Coast in which refrigeration is accomplished by means of the circulation of cold air through air ducts. 290.8 P87
- Cold storage warehouses. Amer. Asso. Refrig., Proc. 1915, p. 71-83. Report of committee of the National Fire Protection Association on manufacturing risks and special hazards. Location, construction, waterproofing, insulation, refrigeration and fire protection of cold storages. 295.9 Am3
- Corbett, L. C. Ice houses. U. S. Dept. Agr., Farm. Bul. 475, 1911. 20 pp. Types and construction of ice houses. Relation of the ice supply to fruit storage. 1 Ag84F

- Fruit and vegetable storage structures. Concrete, vol. 11,
no. 2, Aug. 1917, p. 37-38.
The possibilities of concrete for fruit and
vegetable storage structures. Plans.
- Graham, R. R. Ice cold storage on the farm. Ontario Dept.
Agr., Bul. 207, 1912. 48 pp. 101
On8B
A good description of ice cold storages for
the farm. The storage of ice. Plans.
- Hansen, H. F. A successful cold storage for apples. Minn.
Hort. vol. 44, no. 6, June 1916, p. 243-244. 81
M66
(Published by Minn. Hort. Soc. as Trees,
Fruits and Flowers of Minn.)
Directions for building a farm storage.
- Large apple storage warehouse. Ice and Refrig., vol. 54,
no. 3, March 1918, p. 154-156. 295.8
Ic2
Description of a plant owned by the Winchester
Cold Storage Co. of Winchester, Va.
Dimensions - 120 x 200 feet, 5 stories high.
Construction, elevating system, insulation,
refrigeration.
- Lindvail, N. A. Modern construction of ice and cold storages.
Ice, vol. 17, no. 5, Dec. 1915, p. 28-29. 295.8
Ic23
Temperature variation and excess moisture
must be overcome.
- Mobley, R. H. Apple storage. Refrig. World, vol. 52,
no. 1, Jan. 1917, p. 31-33. 295.8
C67
The storage house - construction, insulation,
advantages of cork, ventilation, temperature.
Precooling. Apples should be picked at maturity.
- Reynolds, J. B. Cold storage. Experiments in cold storage of
fruit. Ontario Agr. Coll. and Exp. Farm,
Rept. 1901, p. 6-11. 101
On8
Results obtained with the Hanrahan system of
cold storage. Cold storage experiments with
apples and pears.
- Rice, Arthur L. Operating variable temperature refrigeration
system. Power, vol. 42, no. 21, 1915, p. 709-710. 290.8
P87
Working temperatures varying from 45 to 10° F.
- Robertson, J. W. Cold storage. Canada Dept. Agr., Agr. and
Dairying Com., Rept. 1897, pt. 5. 87 pp. 7
C16D
Discussion of uses of cold storage with plans
for building.

- Shipman, R. L. Maintenance of insulation for low temperatures. 290.8
Power, vol. 42, no. 4, 1915, p. 118-119. P87
So-called breathing process of walls is due to
changes in barometric pressure and temperature.
- Spaulding, R. E. Experimental tests of fireproof and non- 295.8
fireproof ice house construction. C67
Refrig. World, vol. 49, no. 6, June, 1915,
p. 43-47.
Practical tests covering a period of two
years show that an ice house can be built
which is fireproof and practically insulated
against meltage. Illustrations.
- See also Cold storage; Technology.

PACKING, PACKAGES AND GRADES.

- | | | |
|-------------------|---|----------------|
| Alderman, W. H. | Packing apples and peaches. W. Va. Exp. Sta., Bul. 139, 1912, p. 277-300. Varieties of apples best adapted to barrel and to box packing. Picking the fruit. Barrel packing, facing, filling, papering; the barrel press. Box packing, wrapping the apples, lining, the bulge, the press, labeling. Packing peaches. | 100
W52 |
| Blake, Maurice A. | Packing and shipping peaches in Georgia carriers. N. J. Exp. Sta., Bul. 284, 1915. 48 pp. Requirements of a good shipping package. The proper degree of maturity at which different varieties should be picked for shipping. Packing. Grades. | 100
N46S |
| ————— | Suggested grades for peaches. N. J. Exp. Sta., Cir. 58, 1916. 8 pp. Basis upon which grades should be established. Definition of "Well colored for the variety." | 100
N46S |
| Buckholder, C. L. | Barrel packing of apples. Purdue Univ., Ext. Bul. 50, 1917. 8 pp. Packing equipment, grading, handling the barreled fruit. | 275.29
In2E |
| Creelman, J. A. | Peach package test. 1915. Canada Dept. Agr., Agr. Gaz., vol. 3, no. 3, 1916, p. 222-225. The advantages of the different kinds of packages as determined by tests in a model packing room at the Grimsby plant. | 7
C16G |
| Downing, F. P. | Berry boxes and fruit baskets. West. Fruit Jobber, vol. 6, no. 4, 1919, p. 15-21. Description of prevailing types of boxes; suggestions. | 286.83
W52M |
| Dyer, W. A. | A new package for apples. Coun. Life, vol. 29, no. 1, Nov. 1915, p. 54, 56. The successful use of bushel corrugated-cardboard cartons. | 80
C832 |
| Flack, A. H. | Modern methods of packing apples. Canada Dept. Agr., Fruit Br., Bul. 2, 1917. 62 pp. Very complete information on packing apples in barrels and boxes. | 82
C16B |

Herron, L. G.	Fruit packages in the Middle West. Okla. Exp. St., Cir. Inform. 21, 1913. 27 pp. Package types best adapted to apples, peaches and strawberries.	100 Ok4
Holton, John C.	The theory and practice of sanitary precautions in grove and packing house operations. Fla. St. Plant Board, Quar. Bul., vol. 2, no. 4, 1918, p. 161-179. Relation of sanitation to decays. Evolution of idea. Disinfection. Comprehensive treatment.	464.9 F662Q
Hull, M.	Grading sweet potatoes. La. Agr. Coll., Ext. Cir. H-68, 1919. (Mimeographed). Purpose. Grades.	275.29 L93H
Judson, Lowell B.	Picking, packing, and marketing the apples. Idaho Exp. Sta., Bul. 54, 1906. 37 pp. Thorough discussion. Time and devices for picking. Boxes. Packers and packing houses. Plan for mailing press. Fruit growers' organizations.	100 Id1
Lewis, C. I.	The physical handling of fruit. Better Fruit, vol. 11, nos. 4, 5, 6, 1916, p. 5-10; 5-6; 10-12. Based on a study of the Pacific Northwest. Harvesting, grading and packing equipment. The three grades adopted in the Northwest. Packing houses.	80 B46
Lloyd, J. W.	Marketing the muskmelon. Ill. Exp. Sta., Bul. 124, 1908, p. 295-322. Special consideration of Netted Gem type. The 1/3 bushel Climax basket. Time of picking. Packing shed. Grading.	100 I16S
Markell, Edw. L.	The sorting, sizing, packing and storing of fruit. Peninsula Hort. Soc., Trans. 29th Meet., 1916, p. 41-47. A popular paper giving results of storage investigations conducted by the Department of Agriculture.	81 P37
More, C. T.	The commercial grading, packing and shipping of cantaloupes. U. S. Dept. Agr., Farm. Bul. 707, 1916. 23 pp. A discussion of all phases of preparing cantaloupes for market.	1 Ag84F

	Commercial handling, grading, and marketing of potatoes: U. S. Dept. Agr., Farm. Bul. 753, 1916. 42 pp. Discussion of best methods for handling potatoes from the field to the market.	1 Agg4F
	Préparation of strawberries for market. U. S. Dept. Agr., Farm. Bul. 979, 1918. 27 pp. Complete suggestions for handling strawberries from the vine to the car.	1 Agg4F
Palmer, W. R.	Packing Indiana apples. Ind. Exp. Sta., Cir. 39, 1913. 28 pp. The box and barrel. Sizing and packing equipment. Problems in packing.	100 In2P
Quinn, Geo.	Apple packing. South Aus. Dept. Agr., Bul. 98, 1916. 15 pp. Wrapping and padding; the straight and diagonal packs.	23 So84B
Reid, R. T.	Growing and marketing of grapes. West. Wash. Exp. Sta., Mo. Bul., vol. 5, no. 12, 1918, p. 176-177. Repacking is to be avoided.	100 W272
Scott, W. M.	Preliminary report on apple packing houses in the Northwest. U. S. Dept. Agr., Mar. Doc. 4, 1917. 31 pp. Description of packing houses, packing and warehouses.	1 M347
Smith, E.	Cherry package test season of 1915. Canada Dept. Agr., Agr. Gaz., vol. 2, no. 11, Nov. 1915, p. 1050-1054. Description of various packages. Test shipments show that the Climax package is most desirable for sour cherries.	7 C166
	Standard apple packing chart. Apple grading rules for 1919. Better Fruit, vol. 14, no. 3, 1919, p. 14-15. Illustrations showing placement of apples in standard apple box. Definitions for various grades as considered standard in the Northwest in 1919.	80 B46
Tanner, J. M.	Packing house equipment. Ill. Hort. Soc., Trans., new ser., vol. 50, 1916, p. 189-197. Paper with discussion. Building and machinery for packing houses. General, elementary.	81 I16

Truax, H. E.	U. S. grades for potatoes. U. S. Dept. Agr., Dept. Cir. 96, 1920. 4 pp. Grades recommended by U. S. Department of Agriculture.	1 Ag84D
Tufts, Warren P.	Notes concerning certain California fruit packages. Calif. St. Com. Hort., Mo. Bul., vol. 7, no. 8, 1918, p. 487-488. Historical.	2 C12M
	The packing of apples in California. Calif. Exp. Sta., Cir. 178, 1917. 31 pp. Handling apples for packing. Kinds of packs. Detailed instructions for packing a box.	100 C12S
Waid, C. W.	Grading potatoes in the United States. Ontario, Veg. Grow. Assoc., Rept. 1918, p. 36-44. Address delivered in Toronto on the grading system generally accepted by Michigan potato growers, with discussion. Methods.	75.9 On8
White, H. L.	Apple grading and packing. Mass. St. Bd. Agr., Cir. 50 (2nd ed. rev), 1916. 23 pp. The U. S. standard barrel law. The Sulzer Bill. The Massachusetts apple grading law - explanation of requirements and definitions.	2 M38C1
Wolff, W. H.	The packing of apples in barrels and boxes. N. H. Coll., Ext. Bul. 7, 1916. 32 pp. Detailed treatment of all phases of barrel and box packing. Illustrations.	275.29 N45
<u>See also</u>	Common storage; Handling; Transportation.	

PITS OR TRENCH STORAGE

- | | | |
|-----------------|--|--------------|
| Appel, Otto. | Experiments in storing potatoes. Arbeit. Biol. Abtheil. Land-und-forst., vol. 2, no. 3, 1902, p. 373-376.
Results of burying in the ground. (German) | 410.9
G31 |
| Bechtel, J. R. | How to store celery. Nat. Stockman and Farmer, vol. 43, no. 25, Sept. 20, 1919, p. 686-687.
Time and method of placing celery in trenches. | 6
N21 |
| Delwiche, E. J. | The culture and storage of root crops. Wis. Exp. Sta., Cir. Inform. 16, 1910, p. 9-11.
Harvesting. Constructing a pit. | 100
W75 |
| Gardner, J. J. | Harvesting and storing vegetables for home use. Colo. Exp. Sta., Bul. 232, 1917. 7 pp.
Directions for storing various vegetables in pits. | 100
C71S |
| Helweg, L. | Winter storage experiments with potatoes. 1913-17. Tidsak. Plant., Vol. 24, no. 3, 1917, p. 436-463.
Results of experiments relating to the construction and ventilation of pits. | 11
T439 |
| Tompson, H. F. | Boston celery storage methods. Market Grow. Jour., vol. 21, no. 5, 1917, p. 95.
Building and managing the pit. | 6
M34 |

See also Common storage.

PRECOOLING.

- | | |
|---|----------------|
| Cooling peaches before shipping. Orange Judd Farmer, vol. 37, no. 16, Oct. 1904, p. 359.
An article on the work of G. Harold Powell in Georgia. | 6
Orl |
| Cooper, Madison The precooling of fruit. Cold, vol. 4, no. 10, Aug. 1913, p. 183-189.
Description of car and warehouse precooling. Plans. | 295.3
C671 |
| Dennis, S. J. The portable refrigerating plant of the U. S. Department of Agriculture. Amer. Soc. Refrig. Eng., Trans., vol. 4, no. 60, 1908, p. 236-243.
Description of car used by the Department of Agriculture in precooling experiments. | 295.9
Am32T |
| <hr/> The precooling of fruit in the United States. Internat. Cong. Refrig. Indus., 2nd, 1910, Eng. ed., p. 404-436.
A paper read before the Second International Refrigeration Congress, Vienna, 1910. | 295.9
In82 |
| Faget, Arthur. Precooling of fruit. Amer. Soc. Refrig. Eng., Trans., vol. 6, no. 84, 1910, p. 95-110.
Description of two California precooling plants. Diagrams showing arrangement of valves, ducts and connections for precooling car. | 295.9
Am32T |
| Gay, C. M. San Bernardino precooling plant. Amer. Soc. Refrig. Eng., Jour., vol. 2, no. 2, 1915, p. 5-20.
Paper read before the American Society of Refrigerating Engineers. Detailed description of plant built for Atchison, Topeka and Santa Fe Railroad. Apparatus for precooling takes care of about 150 cars a day. Diagrams and illustrations. (See Jour., vol. 2, no. 4, p. 40-47 for discussion of this paper). | 295.9
Am32J |
| Hughes, J. L. Fruits - their handling and storage. Amer. Soc. Refrig. Eng., Trans., vol. 9, no. 122, 1913, p. 203-215.
Apples and peaches - picking time, methods of precooling. | 295.9
Am32T |

- Killick, V. W. Precooling California oranges to save millions of dollars annually. Sci. Amer., vol. 115, no. 18, Oct. 28, 1916, p. 387.
A description of warehouse precooling in California. 470
Sci25
- Pennington, M. E. A simple ice precooling plant. Amer. Ware. Assoc., Proc. 25th Meet., 1915, p. 266-272.
A simple ice precooling plant costing about \$800. 297.9
Am32
- The precooling of perishable products. Pub. by Intermittent Vacuum Precooling Corporation. New York, 1913. 35 pp.
Value of precooling. The intermittent vacuum process. 295
In8
- The precooling plant of the Southern Pacific at Roseville, Cal. Railway Age Gaz., vol. 48, no. 11, Mar. 1910, p. 725-727
Description of plant and methods of precooling. Diagrams. 283.8
R136
- Ramsey, H. J. The handling and precooling of Florida lettuce and celery. U. S. Dept. Agr., Bul. 601, 1917. 29 pp.
Results of careful handling and precooling in shipping tests carried on in 1913-14 and 1914-15; results of storage experiments. Cost of precooling less than that of icing cars during trip. Precooled celery has been successfully stored for 4 weeks. 1
Ag84B
-
- Precooling and handling investigations with oranges and lettuce, Florida season 1913-14. Fla. Hort. Soc., Proc. 27th Meet., 1914, p. 199-210.
Address covering careful handling, packing, precooling and shipping tests. 81
F66
- Redfearn, B. W. Methods of precooling perishable goods at loading stations. Railway Age Gaz., vol. 55, no. 13, Sept. 1913, p. 568.
Paper presented at the third International Congress of Refrigeration. The "Gay System and Intermittent Vacuum Pre-cooling." 283.8
R136

Ruddick, J. A.	The Grimsby precooling and experimental fruit storage warehouse. Canada Dept. Agr., Dairy and Cold Stor. Com., Cir. 13, 1915. 8 pp. Methods of handling, fruit rates, and rules of the Grimsby warehouse.	44.9 C16B
Smith, Edwin.	Cherry precooling possibilities. Canada Dept. Agr., Dairy and Cold Stor. Com., Cir. 15, 1915. 3 pp. Results of precooling sour cherries and shipping them by freight.	44.9 C16B
	The Grimsby precooling and experimental fruit storage warehouse. Canada Dept. Agr., Dairy and Cold Stor. Com., Bul. 47, 1916. 16 pp. Description of Grimsby methods and rates.	44.9 C16B
	Maturity of fruits for precooled shipments. Canada Dept. Agr., Agr. Gaz., vol. 3, no. 1, 1916, p. 18-20. Based on Department of Agriculture tests. Proper maturity for picking fruits to be precooled.	7 C16G
	Peach precooling. Canada Dept. Agr., Agr. Gaz., vol. 3, no. 2, Feb. 1916, p. 121-123. Brine tank cars.	7 C16G
Steel, Rufus.	Advantage of precooling fruit for shipping. Better Fruit, vol. 5, no. 2, 1910, p. 65-68. Description of the intermittent vacuum system.	80 B46
Stubenrauch, A.V.	Bartlett pear precooling and storage investigations in the Rogue River Valley. U. S. Dept. Agr., Bur. Plant Indus., Cir. 114, 1913, p. 19-24. Results of investigations made in 1912.	1 P69C
	Fruit precooling problems. Amer. Soc. Refrig. Eng., Trans., vol. 7, no. 96, 1911, p. 162-179. Paper read before the American Society of Refrigerating Engineers. Suggested construction of cars for precooling; placement of thermometers. Limitations - cooling must be quick and equal. Diagrams and table.	295.9 Am32T
	The handling and precooling of fruits for transportation. Portland, Ore., 1912. 27 pp. Prevention of decay. Precooling in warehouses and cars.	93 S893

The precooling of fruit. U. S. Dept. Agr.,
Yearbook 1910, p. 437-448.
The progress and results of investigations made
by the Bureau of Plant Industry. The status of
the process as used commercially in 1910.

1
Ag847

The Winter Park fruit precooling plant. Ice, vol. 17, no. 4,
Nov. 1915, p. 19-20.
Description of a plant for precooling citrus
fruits at Winter Park, Fla. Illustrations.

295.8
Ic23

See also Cold storage; Handling; Transportation.

PREVENTION OF FREEZING IN TRANSIT.

- Bonnar, J. D. Why ice in refrigerators prevents freezing. 470
Sci. Amer., vol. 112, no. 11, March 13, 1915, Sci25
p. 249.
The vapor contained in the air of the car is
congealed and latent heat is thereby given up
which warms the car.
- McKay, A. W. Preventing frost damage in transit. Calif. 80
Citrograph, vol. 2, no. 6, Apr. 1917, p. 4-5, 17. C125
The results of experiments made by the U. S.
Department of Agriculture.
- McPike, Eugene F. Heating cars containing perishable freight. 288.8
Railway Age Gaz., vol. 51, no. 2, Aug. 1911, R136
p. 323-324.
Methods used and their effectiveness.
-
- Heating cars for perishable freight. Railway
and Eng. Rev., vol. 51, July 8, 1911, p. 607-608.
Deals largely with the charcoal heater.
- New heater for refrigerator cars. Ice and Refrig., vol. 38, 295.8
No. 4, April 1910, p. 293. Ic2
Charcoal heater used by Illinois Central Railroad.
- Protection of potatoes from cold in transit - Lining and loading 1
cars. U. S. Dept. Agr., Farm. Bul. 1091, Ag84F
1920. 27 pp. (Revision of Mar. Doc. 17).
Explanations and illustrations of methods used
in loading the principal types of cars. Results
of tests and inspections made by the U. S. Depart-
ment of Agriculture.
- Williams, H. E. Protection of food products from injurious temper- 1
atures. U. S. Dept. Agr., Farm. Bul. 125, Ag84F
1901. 26 pp.
A Weather Bureau review on the relations between
temperature and transportation, and temperature
and storage of food products. Notes on freight
cars and storage temperatures.
- See also Transportation.

REFERENCES WITH RELATED INTEREST.

- Adams, A. B. Marketing perishable farm products. Columbia Univ., Stud. in Hist. Econ. and Pub. Law, vol. 72, no. 3, 1916, p. 7-180. 280.3 Ad1
Character and significance of the marketing problem.
Present system of marketing perishables. Reform of processes and reduction of costs.
- Andrews, Frank. The reduction of waste in marketing. U. S. Dept. Agr., Yearbook 1911, p. 165-176. 1 Ag44Y
Carlot movements - despatch, service and diversions.
- Ashby, T. J. Preservatives in fruit shipping. Queensland Agr. Jour., vol. 13, no. 1, 1903, p. 31. 23 Q33
The use of formaldehyde to prevent decay in cars of citrus fruit.
- Baxter, C. W. Marketing Georgia peaches. Canada Dept. Agr., Fruit Div., Cir. 1, 1915. 7 pp. 82 C16C
Descriptive rather than constructive. The Georgia Fruit Exchange.
- Best, Elsdon. Maori storehouses and kindred structures. New Zealand Dom. Museum, Bul. 5, 1916. 103 pp. 296 B46
Description of the storage places used for food supplies by the Maori people of New Zealand.
Historical rather than constructive.
- Bowen, John T. The application of refrigeration to the handling of milk. U. S. Dept. Agr., Bul. 98, 1914. 88 pp. 1 Ag44B
Good description of different methods of refrigeration with useful data on ice and salt mixtures.
- California fruits. Garden and Forest, vol. 8, no. 409, Dec. 1895, p. 512. 80 G161
The amount of fruit shipped in 1895; destination, freight rates, and icing charges.
- Collins, J. H. Methods of wholesale distribution of fruits and vegetables on large markets. U. S. Dept. Agr., Bul. 267, 1915. 28 pp. 1 Ag44B
Methods of receiving, terminal distribution and sales.
- Deniaffe, - Experiments on the conservation of potatoes and their loss of weight. Jardin, vol. 21, no. 481, 1907, p. 76-79. 80 J28
Loss about one per cent per month; early table varieties lose most. (French)

- Dixon, Geo. D. The movement of perishable traffic and the cost of handling same. Pa. Railroad Sys., Inform. for Employees and the Pub., 1917. 8 pp.
An address before the national league of commission merchants. Freight rates negligible in food prices.
- Dodson, W.D.B. Transportation of fruit through the Columbia gateway. Better Fruit, vol. 8, no. 11, May 1914, p. 11-12. 80
The Columbia gateway offers the cheapest route. B46
Possibilities of Panama Canal Shipments.
- Dutt, H. L. A new insect pest of stored potatoes. Bihar and Orrissa, Agr. Jour., vol. 1, no. 2, 1913, p. 139-141. 22
A Hemipteran of the family Tingidae punctures In23
and sucks the sap of potatoes in warehouses.
- Fisher, J.W.Jr., Outlets and methods of sale for shippers of 1
fruits and vegetables. U. S. Dept. Agr., Ag84B
Bul. 266, 1915. 28 pp.
Available outlets for the producer in marketing fruits and vegetables. Getting in touch with these outlets.
- Fuller, Claude. Cold storage as a factor in the spread of insect 24
pests. Natal. Agr. Jour. and Min. Rec., vol. M192
9, no. 7, 1906, p. 656.
Fruit fly maggots remained alive in a torpid condition for 124 days.
- Gore, H. C. The cold storage of apple cider. U. S. Dept. 1
Agr., Bur. Chem., Cir. 48, 1910. 13 pp. C42C
Report of investigations made by Bureau of Chemistry.
-
- Studies on fruit juices. U. S. Dept. Agr., 1
Bul. 241, 1915. 19 pp. Ag84B
Methods of preparation for the commercial manufacture of fruit juices.
- Grempe, P. M. Utilization of breweries for dehydration. 390.8
Zeits. Gesam. Brau., vol. 41, nos. 24, 25, Z13
1918, p. 169-171; 175-177.
Utilizing the equipment of breweries for drying fruits and vegetables. (German)
- Heineman, P. G. Cold storage problems. Popular Sci. Mo., 470
no. 2, Aug. 1912, p. 153-162. P81
Scientific relation of general cold storage practice to the preservation of foods in cold storage. Regulation of commercial cold storages.

- Hepburn, Joseph The handling, transportation, and storage of perishable foodstuffs. Jour. Franklin Inst., vol. 172, no. 2, Aug. 1911, p. 172-173. Handling poultry and dairy products. 470 J82
- Horne, F. A. Uniform and effective cold storage laws. Refrig. World, vol. 49, no. 5, May 1915, p. 35-38. Paper read before the National Food Trades Conference in New York in April, 1915. 295.8 C67
- How refrigerator insulation is made. Sci. Amer., vol. 115, no. 26, Dec. 1916, p. 567. The process of making cork board. 470 Sci25
- Ice and refrigeration blue book. Chicago, 1909. 400 pp. (Sup. to Ice and Refrig.) 295 Ic2
Tabulation of cold storages and all establishments using mechanical refrigeration in the United States and Canada.
- Jackson, H. V. Refrigeration on the homestead. New South Wales Dept. Agr., Farm. Bul. 11 (2d. ed.), 1909. 16 pp. A discussion of small scale refrigeration. The cold storage of fruits and vegetables. 23 N47F
- Jefferson, L. P. The community market. Mass. Agr. Coll., Ext. Bul. 21, 1918, 22 pp. Benefits to producer and consumer. Limitations. Establishment. Legislative regulations in Massachusetts. Suggested forms for records. 275.29 M381E
- Johnson, Emory R. Principles of ocean transportation. New York, 1918. 513 pp. The ocean transportation system and service. Organization of ocean carriers. Government aid and regulation. 289 J632
- Kehoe, R. P. Ice manufacture combined with cold storage. Refrig. World, vol. 49, no. 6, June, 1915, p. 25-26. Ice manufacture more profitable when combined with cold storage. Table. 295.8 C67
- Kent, F. Cold storage, its advantages and disadvantages. Ice and Refrig., vol. 48, no. 3, March, 1915, p. 135. Paper read before Southern Ice Exchange meeting, Feb. 1915. True information regarding cold storages should be disseminated. 295.8 Ic2

- McDermott, F. A. Utilization of cull citrus fruits. Sci. Amer. 470
sup., vol. 81, no. 2109, June 3, 1916, p. 367-368 Sci25C
Cull fruits sometimes equal 10 per cent. Dis-
cussion of problems. Utilization by preserving
juice from culls and removing flavoring oil.
- McElheny, V. K. Jr. The economic value of the auction as a distri- 330
butor of perishable commodities. Pan Amer. Sci. P192
Cong., Proc. 1915-16, Sect. III, p. 740-748.
History of the "auction"; its services and results;
increasingly necessary in distribution.
- McPike, E. F. On the railroad refrigerator service association, 7 pp.
its origin and its aims. Paris, 1908. 7 pp.
Organized Feb. 5, 1908 to develop a standard code of
rules for operating refrigerator, ventilator and
heater cars.
- Moomaw, C. W. Apple market investigations, 1914-15. U. S. 1
Dept. Agr., Bul. 302, 1915. 35 pp. Ag84B
Report of investigations made by the Office
of Markets on commercial apple crop conditions
and cold storage movement.
- Neff, Peter. Cost of refrigeration. Amer. Asso. Refrig., 295.9
Proc. 1915, p. 85-90. Am3
A basis for cold storage rates is seriously
needed. Suggested method to start criticism
and ascertain facts. Charts and tables.
- Pennington, M. E. Studies of poultry from the farm to the consumer 1
U. S. Dept. Agr., Bur. Chem., Cir. 64, 1910. C42C
42 pp.
A review of scientific work on the application
of refrigeration to the handling of poultry and
eggs.
- Powell, G. Harold. The California lemon industry. Calif. Citrus 81
Protect. League, Bul. 9, 1913. 59 pp. C49
Extent. Distribution. The California Fruit
Growers Exchange. The Citrus Protective League.
Cost of production and handling.
- Cooperation in the handling and marketing of 1
fruit. U. S. Dept. Agr., Yearbook 1910, Ag84Y
p. 391-406.
Principles, types, organization, causes of
failure.

-
- The cost of distributing the California citrus fruit crop from the producer to the consumer. West. Fruit Jobber, vol. 1, no. 12, Apr. 1915, p. 23-31. Variations in distributing costs, transportation conditions and retail cost. 286.83 W52M
-
- Italian lemons and their by-products. U. S. Dept. Agr., Bur. Plant Indus., Bul. 160, 1909. 57 pp. 1 P69B
The Italian lemon industry - extent, exports to United States. Handling the lemon garden and crop. By-products, preparation of the fruit, manufacture.
- Rowley, H. C. What about fruit below established standard? Calif. St. Com. Hort., Mo. Bul., vol. 6, no. 5, 1917, p. 193-198. 2 C12M
Some suggestions for making use of fruit which is of medium quality. Sell it to consumers who understand just what they are buying in order to assist in keeping down high prices.
- Schleussner, O.W. Marketing and distribution of strawberries in 1915. U. S. Dept. Agr., Bul. 477, 1917. 32 pp. 1 Ag84B
The beginning of the market news service; surveys of principal shipping areas.
-
- Marketing and distribution of western muskmelons in 1915. U. S. Dept. Agr., Bul. 401, 1916. 38 pp. 1 Ag84B
History of the muskmelon industry, marketing arrangements and distribution in California, Arizona, Nevada and Colorado.
- Sherman, W. A. Retail shipments and distribution of fresh tomatoes, 1914. U. S. Dept. Agr., Bul. 290, 1915. 12 pp. 1 Ag84B
Figures showing shipments and distribution. Map. Charts.
- Sinclair, Angus. Development of transportation in the United States. U. S. Dept. Agr., Yearbook 1899, p. 643-663. 1 Ag84Y
Historic account of the beginning and development of railways.
- Transportable refrigerating machine used by General Villa's army. Ice and Refrig., vol. 47, no. 4, Oct. 1914, p. 123. 295.8 Ic2
Description. Especially valuable for hospitals and ambulances.

- Ward, Edward, G., Jr. Methods and routes for exporting farm products. 1
U. S. Dept. Agr., Bur. Statis., Bul. 29, St2B
1904. 62 pp.
Billing instructions and freight contracts.
List of fast freight lines. Routes to Gulf
and Pacific ports.
- Weld, L. D. H. The marketing of farm products. New York, 280.3
1917. 483 pp. W45M
Principles of market distribution as applied
to the marketing of agricultural products.
- Wescott, N. P. Truck marketing on a large scale under co- 330
operative principles. Pan. Amer. Sci. Cong., P192
Proc. 1915-16, Sect. III, p. 341-349.
The story of the Eastern Shore of Virginia
Produce Exchange, a cooperative association.
Management, determination of prices, standard-
ization, government.

REFRIGERATOR CARS.

- The "A.B.C." system of transit refrigeration. Railway Rev., vol. 60, no. 9, Mar. 3, 1917, p. 305-306.
The loading space of a car may be more fully utilized by the use of the A.B.C., that is, the automatic brine circulation system of refrigeration.
- Armour, J. Ogden. The packers, the private car lines and the people. Philadelphia, 1906. 380 pp. 50
The first use of refrigerator cars. The organization of private car lines and the functions they have performed. Ar5
- The California fruit-supply in New York. Garden and Forest, vol. 6, no. 295, Oct. 1893, p. 432-433. 80
Historical. The experiment of bringing California fruit to New York was first tried in 1863. Gl 61
Description of fruits, refrigeration in transit, carloads, cost of freight (\$400) and refrigeration (\$200), time in transit, and early auction companies.
- Central of New Jersey Ice Car. Railway Age Gaz., vol. 52, no. 23, June 7, 1912, p. 1239-1241. 288.8
Description and illustrations. R136
- Collins, L. W. Ventilation in transit. (Unpublished). U. S. Dept. Agr., Bur. Mar. and Crop Est., files.
Description of modern systems of refrigerator car ventilation with results of tests in transit.
- Dennis, S. J. Temperatures of fruits and vegetables in transit in refrigerator cars. Amer. Soc. Refrig. Eng., Jour., vol. 2, no. 3, 1915, p. 16-22. 295.9
Under present systems of refrigeration, temperatures in different parts of the same load may vary 30 degrees. Need of further insulation and more adequate ventilation. Am32J
- Elevator used for icing refrigerator cars. Popular Mechan., vol. 24, no. 1, July 1915, p. 112. 291.8
Description of a portable elevator truck for conveying ice to car bunkers. P81

- Express refrigerator cars for the Chicago, Milwaukee and Puget Sound Railway. Railway and Eng. Rev., vol. 51, no. 24, June 17, 1911, p. 531.
Design. Ice bunker illustrated.
- Icing cars on the Illinois Central. Railway and Eng. Rev., vol. 41, no. 35, Sept. 7, 1901, p. 538.
Methods described and illustrated.
- Icing stations on the Burlington. Railway Age Gaz., vol. 47, no. 14, Oct. 1, 1909, p. 580. 288.8
Methods of operation. R136
- Important features in refrigerator car design. Railway Age Gaz., vol. 56, no. 5, Jan. 30, 1914, p. 215-221. 288.8
Discussion of various devices, with illustrations. R136
- Improved devices for refrigerator cars. Railway and Eng. Rev., vol. 42, no. 17, Apr. 26, 1902, p. 342.
Description of the Jennings collapsible ice tank made to fold in the end of the car.
- Leeds, J. S. Organization for handling refrigeration transportation. Railway Age Gaz., vol. 55, no. 13, Sept. 26, 1913, p. 569-571. 288.8
A paper read before the Congress of Refrigeration. R136
- Linofelt flax fiber insulation for refrigerator cars. Railway Age Gaz., vol. 50, no. 8, Mar. 3, 1911, p. 374. 288.8
Processes described. R136
- Marchis, L. Production of low temperatures and refrigeration. Translation in Smithsonian Inst., Rept. 1909, p. 207-224. 500
Ammonia absorption as a means of refrigeration in transit as tested in Russia was much more expensive than ice refrigeration. Sm6Rf
- Needed improvements in the transportation of perishable fruits. A refrigeration problem. Eng. News, vol. 55, no. 1, Jan. 4, 1906, p. 20-21. 290.8
Based on a paper read by G. Harold Powell before the American Society of Refrigerating Engineers. The fundamental problems in stabilizing The American fruit industry as seen in 1906. En34

- Pennington, M. E. The refrigeration of dressed poultry in transit. 1
U. S. Dept. Agr., Bul. 17, 1915. 35 pp. Ag84B
Relation of refrigerator car temperatures to
carriage of dressed poultry. Refrigerator
car construction.
- Pennsylvania railroad refrigerator cars. Railway Age Gaz., vol. 288.8
62, no. 5, Feb. 2, 1917, p. 179-180. R136
Description. Designed especially for milk
and cream.
- Powell, G. Harold The transportation of fruit in refrigeration. 30
Calif. Fruit Grower, vol. 33, nos. 919, 920, C12
Jan. 1906, p. 1, 3, 5.
A paper presented before the American Society
of Refrigerating Engineers discussing conditions
of refrigerator cars.
- Railways ice company car icing plant. Ice and Refrig., vol. 49, no. 295.8
2, Aug. 1915, p. 72-75. Ic2
Description of a car icing plant at Argentine,
Kans. What can be accomplished by adding an ex-
haust steam absorption refrigerating machine.
- Refrigeration in railway cars. Railway Age, vol. 35, no. 9, Feb. 27,
1903, p. 294.
Ammonia refrigeration as used by the Danish State
Railway.
- Refrigeration by railways. Railway Age Gaz., vol. 50, no. 20, May 288.8
19, 1911, p. 1159. R136
Methods described.
- Refrigerator car. Ice and Refrig., vol. 53, no. 5, Nov. 1917, p. 204. 295.8
Specifications of a patent for a refrigerator car. Ic2
- Refrigerator cars. Railway Age Gaz., vol. 50, no. 24e, June 21, 1911, 288.8
p. 1607-1608. R136
Report of committee of the Master Car Builders'
Association. Various types mentioned. Discussion.
- Refrigerator cars for the Baltimore and Ohio. Railway Age Gaz., vol. 288.8
63, no. 22, Nov. 30, 1917, p. 931-934. R136
Special features described. Insulation. Plans.
- Refrigerator cars for the Michigan Central. Railway Age, vol. 64,
no. 11, Mar. 15, 1918, p. 561 - 564.
Design and insulation.

- Refrigerator cars for the Pacific Fruit Express Co. Railway Rev., vol. 60, no. 21, May 26, 1917, p. 721-723.
Dimensions. The underframe, floor racks and ice bunkers. Arrangement of insulation.
- Refrigerator cars for the Santa Fe. Railway Age Gaz., vol. 60, no. 7, Feb. 18, 1916, p. 294-297. 288.8
R136
Special features are the ventilators, drain attachments, and application of the insulation.
- Rutledge, R. M. Status of the American Fruit trade. Better Fruit, vol. 9, no. 1, July 1914, p. 9. 80
B46
Historical influence of the refrigerator car.
Bananas were first imported into the United States in 1804.
- The "siphon" system of refrigeration. Railway Age, vol. 33, no. 2, Jan. 10, 1902, p. 52-53.
A detailed description of the Bohn "siphon" system. Diagrams.
- Smith, Edwin Insulation test. (Unpublished). U. S. Dept. Agr., Bur. Mar. and Crop Est., files.
Tests made in the Northwest, 1917-18.
-
- The use of brine tank refrigerator cars for fruit shipment. Canada Dept. Agr., Dairy and Cold Stor. Com., Bul. 50, 1917. 15 pp. 44.9
C16B
Temperature records, with discussions of methods of loading and operating.
- The Tiffany refrigerator car. Railroad Gaz., vol. 9, July 13, 1877, p. 311.
Description and illustration.
- Transportation of fresh meats and fruits, etc. through long distances. 470
Sci. Amer., vol. 23, no. 20, Nov. 12, 1870, p. 312. Sci25
A description of the Davis refrigerator car.
Historical value.
- Union Fibre Co., Insulation of railway equipment. Winona, Minn., 1912. 110 pp.
A short story of the evolution of the refrigerator car in the United States.
- The use of brine tank refrigerator cars for fruit shipment. Canada Dept. Agr., Agr. Gaz., vol. 4, no. 2, Feb. 1917, p. 110-114. 7
C16G
Proper method of use to insure satisfactory results.

Weld, L. D. H.

Private freight cars and American railways.
Columbia Univ., Stud. in Hist. Econ. and Law, vol.
31, no. 1, 1908. 135 pp.

289

W45

A complete history of early attempts at refrigeration for transportation, the development of the refrigerator car, and the private car companies. Costs of refrigerator cars, average mileage per year, and earnings.

See also

Transportation.

RIPENING AND RESPIRATION

FRUITS

- | | | |
|---|---|---------------|
| Bigelow, W. D. | Studies on apples. U. S. Dept. Agr., Bur. Chem., Bul. 94, 1905. 100 pp.
Chemical analysis of apples during ripening and storage, showing changes in sugar, acid, starch, and pectose contents. Charts and plates. | 1
C42B |
| <hr style="width: 20%; margin-left: 0;"/> | | |
| | Studies on peaches. U. S. Dept. Agr., Bur. Chem., Bul. 97, 1905. 32 pp.
Changes in chemical composition during growth and ripening. Effect of storage on the composition of peaches. Tables. | 1
C42B |
| Bioletti, F. T. | Changes in chemical composition of grapes during ripening. Univ. Calif., Pubs. Agr. Sci., vol. 3, no. 6, 1918, p. 103-130.
Chemical analysis and factors affecting rapid ripening. Tables and charts. Bibliography. | 500
C125Ag |
| Cardiff, I. D. | Twenty-sixth annual report of the Agricultural Experiment Station at the State College of Washington, 1916. Wash. Exp. Sta., Bul. 136, 1917, p. 42-44.
Experiments on the relation of soil moisture to the keeping quality of Jonathan apples. | 100
W27E |
| Cruess, W. V. | Preliminary observations on the ripening of Bartlett pears. Calif. St. Com. Hort., Mo. Bul., vol. 5, no. 12, 1916, p. 425-429.
Data on tests made to ascertain whether a chemical test could be applied to determine the proper ripeness of Bartlett pears for shipment. | 2
C12M |
| Gore, H. C. | Studies on fruit respiration. U. S. Dept. Agr., Bur. Chem., Bul. 142, 1911. 40 pp.
Results of experiments concerning the effect of temperature on the respiration of fruits; the effect of picking on the rate of evolution of carbon dioxide by peaches; and the rate of accumulation of heat in the respiration of fruits. | 1
C42B |
| Hill, G. R., Jr. | The relation of ventilation to the respiration of fruits. Abstract in Sci., new ser., vol. 37, no. 949, Mar. 7, 1913, p. 378.
A study of various fruits when subjected to gases; probable relationship between scald and respiration. | 470
Sci2 |

-
- Respiration of fruits and growing plant tissues in certain gases, with reference to ventilation and fruit storage. N. Y. (Cornell) Exp. Sta., Bul. 330, 1913, p. 377-408. 100
M48C
- A review of literature on the subject. The results of experiments with the respiration of various fruits under aerobic and anaerobic conditions.
- Langworthy, C. F. Some results obtained in studying ripening bananas with the respiration calorimeter. 1
Ag84Y
U. S. Dept. Agr., Yearbook 1912, p. 293-308.
A study of the changes which take place in ripening and after ripening in order to determine the principles underlying the successful handling of fruits.
- Morse, Fred W. The respiration of apples and its relation to their keeping. N. H. Exp. Sta., Bul. 135, 1908, p. 85-92. Description of apparatus used. 100
M45
The rate of chemical change and ripening in cold storage, as compared with cellar storage and summer temperatures.
- Neidig, R. E. Factors involved in the ripening of fruits. 100
Id1
Idaho Exp. Sta., Bul. 104, 1918, p. 22-25.
Carbohydrate changes taking place in ripening apples. A summary of the work done by the department of chemistry at the Idaho Experiment Station during 1917.
- Otto, R. The changes in the chemical composition of apples by storing. Gartenflora, vol. 50, 1901 80
G19
p. 318-321.
Discussion of changes in starch, sugar and acid content of apples in cellar storage. (German)
- The physiology of ripening. Jour. Hort. and Agr., vol. 20, no. 4, 7
J82J
Oct. 1916, p. 87-88.
Ripening fruits take in oxygen and give out carbon dioxide.
- Prescott, Albert The chemistry of fruit ripening. Pop. Sci. Mo. 470
P81
vol. 12, Feb. 1873, p. 460, 473.
Description of changes in fruits. "The sweetness of fruit has but slight correspondence with its proportion of sugar."

- Shamel, A. D. Some observations upon the relation of humidity to the ripening and storage of fruits. Calif. St. Com. Hort., Mo. Bul., vol. 6, no. 2, 1917, p. 39-41. 2 Cl2M
Results of experiments on lemons and pears conducted in a lemon packing house at Corona, Calif.
- Snyder, W. P. Chemical and physical changes in apples during the ripening and storage period. Ind. Hort. Soc., Trans. 1916, p. 408-411. 81 In2
Transformation of starch into sucrose.
- Thatcher, R. W. Enzymes of apples and their relation to the ripening process. U. S. Dept. Agr., Jour. Agr. Research Ag84J vol. 5, no. 3, 1915, p. 103-116.
Investigations made to discover the possibility of slowing up the ripening of fruits by means other than cold storage. Different gases were used.

VEGETABLES

- Appleman, C. O. Changes in potatoes during storage. Md. Exp. Sta., Bul. 167, 1912, p. 327-334. 100 M36S
The relation of temperature to starch and sugar transformations; studies on respiration, loss of weight and freezing.
- Bitting, K. G. Deterioration in asparagus. Nat. Cannery Asso., Bul. 11, 1917. 18 pp. 286.83 N21
Changes taking place in cut asparagus. Relates especially to preparation for canning
- Hasselbring, Heinrich. Effect of different oxygen pressures on carbohydrate metabolism of sweet potatoes. U. S. Dept. Agr., Jour. Agr. Research, vol. 14, no. 7, 1918, p. 273-284. 1 Ag84J
Oxygen is not necessary for the formation of cane sugar in sweet potatoes. Apparently cane sugar is stable in relation to the respiratory processes of sweet potatoes.
-
- Physiological changes in sweet potatoes during storage. U. S. Dept. Agr., Jour. Agr. Research, vol. 3, no. 4, 1905, p. 331-342. 1 Ag84J
Experimental methods. Changes in moisture and starch contents. Bibliography.

- Hasselbring, Hein-
rich. Respiration experiments with sweet potatoes. U. 1
S. Dept. Agr., Jour. Agr. Research, vol. 5, no. 12, Ag24J
1915, p. 509-517.
A description of experiments made to determine
whether or not there is a correlation between
the sugar content and respiratory activity of
sweet potatoes.
- Hill, G. R. Jr. The relation of ventilation to the keeping 500
qualities of fruits and vegetables. Wash. Sa22
Univ. (St. Louis), Studies, vol. 1, pt. 1,
1913, p. 46-64.
Data on lettuce storage and ventilation.
- Shiver, F. S. Sweet potato. S. C. Exp. Sta., Bul. 63, 100
1901, p. 6-37. So3
The effect of storing upon composition with
analysis for water content, sugar and starch at
different times during the season. Methods of
storage.

STANDARDIZATION.

- Ashley, G. W. Evolution of standardization. Benefits of standardization to the grower. The opinion of railroad companies on standardization. Calif. St. Com. Hort., Mo. Bul., vol. 7, nos. 1, 2, 1918, p. 38-40, 42-46. These papers read before the California State Fruit Growers' Convention in 1917. 2
C12M
- Chace, E. M. Standards of maturity for the Washington navel orange. Calif. St. Com. Hort., Mo. Bul., vol. 6, no. 3, 1917, p. 325-30. A discussion of the relative merits of different standards for judging maturity. The sliding scale as a substitute for the 8 to 1 test. 2
C12M
- Cook, S. J. Standardization of vegetables. Pan Amer. Sci. Cong., Proc. 1915-16, Sect. III., vol. 3, p. 475-479. Fundamental principles and essential factors in standardization. 330
P192
- Jaffa, M. E. Standards for sulphurous acid content of dried fruits. Calif. Dept. Agr., Mo. Bul., vol. 9, no. 3, 1920, p. 113-116. Discussion of sulphuring from commercial and nutritional points of view. 2
C12M
- The standardization of fresh fruit packing law. Calif. St. Com. Hort., Mo. Bul., vol. 5, no. 11, 1916, p. 414-416. (Also in Laws of Calif., 1915, Chap. 659). The test of the law. 2
C12M
- Tate, A. W. Apple standardization. Calif. St. Com. Hort., Mo. Bul., vol. 6, no. 8, 1917, p. 332-334. An explanation of the Standard Apple Act of 1917. 2
C12M

TECHNOLOGY

- | | | |
|-----------------------------|---|---------------|
| Biquard, R. | The efficiency of various methods of insulating refrigerated rooms. Internat. Cong. Refrig., 2nd, 1910, Eng. ed., p. 206-213.
Experiments on thermal conductivity. | 295.9
In82 |
| Corbett, L. C. | Cold storage. W. Va. Exp. Sta., Bul. 74, 1901, p. 51-80.
A plan for building a cold storage with discussion of possible returns. The cold storage of apples and chestnuts. | 100
W52 |
| Cosgrove, J. J. | Sanitary refrigeration and ice making. Pittsburg, 1914. 6 pp.
General principles of refrigeration, data on compression and absorption systems; types of machinery; auxiliary apparatus. "A general outline of the theory and practice of mechanical refrigeration without giving explanation of technical problems." | 295
C82 |
| Galpin, H. T. | Cold storage. Soc. Chem. Ind., Jour., vol. 22, no. 6, Mar. 1903, p. 346-348.
A technical account of the use of different brines for producing cold. | 382
M31 |
| Hastings, M. M. | A cold-storage evaporimeter. U. S. Dept. Agr., Bur. Animal Indus., Cir. 149, 1909. 8 pp.
A practical apparatus for determining the humidity in storage houses. | 1
An5C |
| Insulation for cold stores. | Refrig. World, vol. 48, no. 2, Aug. 1914, p. 72.
As used in the National Ice and Cold Storage Co. of Columbus, Ohio. | 295.8
C67 |
| Neff, Peter. | Practical use of thermometers in refrigerating plants. Power, vol. 42, no. 12, 1915, p. 417-418.
Thermometers are not so generally used as is desirable. | 290.8
P87 |
| Reynolds, J. B. | Cold storage experiments. Ontario Agr. Coll. and Exp. Farm, Rept. 1900, p. 3-7.
Observations on the consumption of ice in an ice refrigerator and in an ice cold storage. Diagrams. | 101
On8 |

Siebel, J. E.

Compend of mechanical refrigeration. Chicago,
1911, (8th ed.). 596 pp.

A comprehensive digest of general engineering
and thermodynamics with many tables, formulae
and notes for the use of those dealing with
refrigeration.

295
Sil
Ed.8

TRANSPORTATION

- American apple exports. Garden and Forest, vol. 7, no. 324, May, 1894, p. 182-183. 80
C161
The demands of the export apple business; varieties; English supplies; preparation and shipment. Historical.
- Bird, H. S. Loading American Grapes. U. S. Dept. Agr., Mar. Dec. 14, 1918. 28 pp. 1
M747
Illustrations and instructions for loading grapes according to types of packages. Crushing causes great losses.
- Burlington conserves foodstuffs and prevents claims. Railway Age Gaz., vol. 63, no. 26, Dec. 1917, p. 1186-1187. 288.8
R136
Inspection at points of origin.
- A cool truck. Pastoral Rev., vol. 27, no. 10, Oct. 16, 1917, p. 998. 23
Au75
Description of a car for fast fruit traffic constructed in Junin, Argentina.
- Craig, John Shipment of perishable fruits to England. 101
Ex6R
Canada Exp. Farms, Rept. 1895, p. 75.
Notes on a shipment of perishable fruit to England which was unsuccessful because of insufficient icing.
- Culp, J. M. Perishable goods. Berne, 1910. 84 pp. (Reprint from Internat. Railway Cong., Ques. 16) 295
C89P
A long and interesting article on suitable measures for developing the traffic in perishables, together with a history and a review of present methods.
- Gas process unsuccessful. Calif. Fruit Grower, vol. 19, no. 9, Aug. 1896, p. 165. 80
C12
Carbonic acid gas process of fruit shipment unsuccessful. In two carlot shipments the fruit was unsalable.
- Hawbaker, C. C. Marketing berries and cherries by parcel post. 1
Ag4B
U. S. Dept. Agr., Bul. 688, 1918. 17 pp.
Containers, Regulations of Post Office department.
- How Wells Fargo handles fruit in California. Wells-Fargo Messenger, vol. 1, no. 12, Aug. 1913, p. 191-193. 286.8
W46
Loading and transferring. Illustrations.

- Leeds, J. S. Refrigeration of citrus fruits in transit from California. Internat. Cong. Refrig. Indus., 1st, vol. 3, 1908, p. 602-612. 295.9
In82
Handling the refrigerator car service in shipping from California.
- Macoun, W. T. Shipment of apples to Glasgow in cold storage. 101
Canada Exp. Farms, Rept. 1903, p. 93-94. Ex6R
One hundred bushel boxes of autumn apples shipped at a good profit.
- McPike, Eugene F. Transportation of perishable commodities - need of co-operation of shippers with carriers. Ill. Cen. Mag., vol. 4, Jan. 1916, p. 58-61. Careful packing, loading and billing on the part of the shipper expedites the handling of perishable products.
- Meeker, Claude American fruit in England. U. S. Consular Rept., vol. 46, no. 170, Nov. 1894, p. 399-402. 157.7
C76
Remarks on overripe condition of fruits upon arrival in England; prices. Harvesting before complete maturity and cold storage suggested as remedies. Historical value.
- Munger, H. E. Marketing Colorado cabbage. Colo. Agr. Coll., Ext. Bul., ser. 1, no. 163-A, 1919, p. 10-31. 100
C718
Explanation of "market terms". Loading, proper storage facilities, suggestions for distribution, grading. The marketing problems of 1918.
- The potato with best methods of loading. N. Y. Central Lines, Agr. Dept. 14 pp. (Reprint of part of Amer. Asso. of Refrig., Com. Ry. and SS Refrig., Bul. 3.) 75
N
Extracts from railroad rules concerning perishable fruits. Illustrations and explanations of some storage diseases of potatoes; formulae for disinfection. Proper methods of loading illustrated. Prevention of freezing in transit.
- Powell, G. Harold. Problems surrounding the shipping of fruit. 80
Better Fruit, vol. 5, no. 3, Sept. 1910, p. 25-31, 74-77. B46
A rather complete discussion of the transportation of fruit - diseases, packing, storage.
- Railroad ice houses. Eng. Record, vol. 70, no. 19, Nov. 7, 1914, 290.8
p. 512-513. En36
Notes from a committee report presented at a convention of the American Railway Bridge and Building Association.

- Ramsey, H. J. Heavy loading of freight cars in the transportation of Northwestern apples. U. S. Dept. Agr., Mar. Doc. 13, 1918. 23 pp. 1 M347
Recommendations concerning temperatures, ventilation, bracing and handling of heavily loaded cars deducted from an investigation of the car shortage of 1917-18.
-
- Transportation of horticultural products. Stan. Cyclopedia of Hort., vol. 6, 1917, p. 3367-3371. 90 C998
Methods of handling, precooling, refrigeration and prevention of freezing in transit.
- Raulkin, J. O. Marketing Nebraska potatoes. Nebr. Exp. Sta., Cir. 9, 1919. 29 pp. 100 N27
When, where and how Nebraska potatoes are sold. Grading. Loading the cars. Inspection. Care in transit.
- Reducing the cost of food distribution. Amer. Acad. Polit. and Social Sci., Annals, vol. 50, no. 139, Nov. 1913. 280.3 Am3
272 pp.
More efficient distribution and conservation. Lower costs through middlemen and retailing, municipal markets, farm credits and advertising, cooperation. Elements in a constructive program.
- Reynolds, J. B. Shipment of fruit to Winnipeg. Ontario Agr. Coll., Bul. 139, 1905. 24 pp. 101 On8B
Discussion of maturity of peaches, pears and plums for long distance shipment.
- Ridley, V. W. Factors in transportation of strawberries from the Ozark region. U. S. Dept. Agr., Mar. Doc. 8, 1918. 10 pp. 1 M347
Temperatures in transit with and without ice; loading instructions. Decay can largely be prevented by immediate cooling to 45 to 50 degrees F.
- Robertson, J. W. Fruit shipments to Britain. Ontario Fruit Grow. Asso., Rept. 33rd Meet., 1901, p. 63-75. 82 On8
Observations on methods of cold storage in transportation. Discussion.
- Ruddick, J. A. Trial shipments of peaches in 1910. Canada Dept. Agr., Dairy and Cold Stor. Com., Bul 27, 1911. 38 pp. 44.9 C16B
Shipping peaches to Great Britain, picking, packing, pre-cooling, inspection, temperature on railroad and steamer. Conclusions.

- Secrist, C. M. Facilities for replenishing ice for refrigeration in transit. Railway Age Gaz., vol. 55, no. 13, Sept., 1913, p. 568. How to minimize loss and delay. 288.8 R136
- Stubenrauch, A. V. The relation of the transportation and storage of fruits and vegetables to the conservation of these food supplies. Jour. Sociologic Med., vol. 16, no. 6, Dec. 1915, p. 360-382. Necessity of refrigerator transportation, pre-cooling, causes of decay. Importance of systematic distribution of fruit crops. 50 J82
- Suggestions to growers and shippers of fruits and vegetables as to the best methods of preparation, loading, stowing, stripping and bracing for safe transportation. Amer. Asso. Refrig., Com. Railway, and S. S. Refrig., Bul. 3, 1916, 31 pp. Some extracts from railroad rules. Billing instructions. Illustrations showing methods of loading. 259.9 AmJ1B
- Taylor, W. A. Fruit and vegetable storage and shipment experiments of the U. S. Department of Agriculture. Va. Hort. Soc., Rept. 1901, p. 17-29. Handling Bartlett and Kieffer pears, late peaches, and sweet potatoes for shipment to the English market. Discussion. 81 V81
- Thayer, Paul Sending apples by parcel post. Ohio Exp. Sta., Mo. Bul., vol. 1, no. 12, Dec. 1916, p. 377-382. Results of experiments made by the Horticultural Department from 1913 to 1916. Types of packages, methods of packing and trial shipments. 100 OhJ8
- Transportation of perishable freight. Railway Age Gaz., vol. 48, no. 9, Mar. 1910, p. 448. Discussion of measures for developing perishable freight traffic. 288.8 R136
- Welsh, F. S. Factors in transporting New York peaches. N. Y. Central Lines, Agr. Dept. 15 pp. Descriptions of load arrangements. Illustrations. Refrigeration, - charts showing relation of salted ice to refrigeration. 280.3 N488F
- White, Gordon C. Improved transportation service for perishable products. Pan Amer. Sci. Cong., Proc. 1915-16, Sect. III, p. 400-425. A review of all phases of transporting perishable products. Refrigerator cars - description, insulation. Precooling. Protection against freezing. Special market trains. Bibliography. 330 P192

White, Gordon C. Perishable terminals. Railway Age Gaz., vol.
63, no. 25, Dec. 1917, p. 116.
Need for terminals for storing perishable
freight.

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R136

See also

Handling; Prevention of freezing in transit;
Refrigerator cars.

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