

A STUDY  
OF  
FRUIT MARKETING ORGANIZATIONS

by

William Bradford Lanham, B.S.A.

.....

SUBMITTED IN PARTIAL FULFILMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in the

GRADUATE SCHOOL

of the

UNIVERSITY OF MISSOURI

1917.

*Approved  
W. H. Lawrence*

378.7M71

XL 27

00

TABLE OF CONTENTS AND INDEX.

INTRODUCTION

HISTORY .....	PAGE 1
REASONS FOR MARKETING ORGANIZATIONS .....	PAGE 24
OTHER PRODUCERS COOPERATE .....	PAGE 24
ORGANIZATION OF DISTRIBUTORS .....	PAGE 25
DISCRIMINATING AGAINST .....	PAGE 29
ORGANIZED FOR SELF DEFENSE .....	PAGE 35
ECONOMY OF OPERATION .....	PAGE 36
COLD STORAGE AND REFRIGERATION .....	PAGE 54 ✓
STANDARDIZE THE INDUSTRY .....	PAGE 59
REQUISITES FOR SUCCESS .....	PAGE 63
MUST FEEL NEED OF ORGANIZATION .....	PAGE 63
OVER - SUPPLY .....	PAGE 67
GOOD MANAGER .....	PAGE 73
PROPER ORGANIZATION .....	PAGE 87
SUPPORT OF MEMBERS .....	PAGE 88
FINANCING .....	PAGE 91 ✓
SALES METHOD .....	PAGE 98
ADVERTISING .....	PAGE 102
LEGISLATION .....	PAGE 103 ✓
CONCLUSIONS AND SUMMARY .....	PAGE 112

...

## A STUDY OF FRUIT MARKETING ORGANIZATIONS.

### Introduction.

The question that confronts the fruit grower of the present time is not only how to raise more and better fruit, but how to realize a reasonable profit on what he does produce; how to put up his product so it will reach the consumer in the best possible condition, and how to reduce the great difference between what the consumer pays and what the producer receives. Farmers are just beginning to realize that if they are to receive a reasonable return for their labor and dividends on the capital invested, they must consider their calling a business.

The growing of fruit may be considered a manufacturing business. The raw materials are the soil, fertilizer, water, etc.; the trees the factory, and the fruit the finished product. Manufacturers of any size seldom have the same person to take care of both the production and the selling end. If the finest quality of fruit is to be grown, the grade in which there is the greatest value, it is about all the average grower can do to attend to the growing without having also to be a salesman.

The expert orchardist is the one to outline and direct with regard to choice of site, orchard cultivation and, in short, the scientific side of production. But just as manufacturing cannot succeed without scientific advertising, distributing and selling organizations, so fruit production often results in failures without well or-

ganized advertising, distributing and selling machinery.

Most fruit growers do not produce a sufficient amount to employ a sales force, and in such case the only solution seems to be cooperation with other growers.

Our government is engaged in investigating complaints from the wage earners and the middle class regarding the high cost of living. At the same time we are confronted with the startling and almost incredible puzzle, that many farmers and fruit growers are making a scant living, much less receiving an adequate return on their investment. There seems to be a serious wrong somewhere. To determine if the method of marketing bears any relation to profits is one of the objects of this study.

Marketing organizations for farm products so far seem to have been the most successful in localities that specialize to a certain degree on some particular crop. The general farmer of the Mississippi Valley does not, as yet, appear to have felt the necessity for cooperating with his neighbors to the extent that the grower of more specialized products has.

An orchard census taken by the Missouri State Board of Horticulture in 1913, showed over 15,000 fruit growers in the state. Of these 90 per cent of the ones that shipped cooperatively believed fruit growing paid and less than 5 per cent of the independent shippers believed there was money in the business.

Growers' marketing organizations have apparently been the most successful with the vegetable growers east and south; the deciduous fruit growers of the northwest; and the citrus fruit growers of the south

and southwest.

Many of the associations organized have been phenomenally successful while others have been dismal failures. Apparently, this has been equally true with the stock companies and the strictly cooperative organizations. In order to see if there is any plainly apparent reason for some associations being successful and others failures - - in other words, if there could be any plan of organization worked out that would be used as a model for the fruit growers of Missouri - - this study was undertaken.

This study was begun in the spring of 1915. Not only was a large amount of available literature consulted, but letters of inquiry were addressed to over three hundred organizations, scattered from one coast to the other, and from British Columbia to the southern line of the United States. Also the result of the writer's experience, both as a grower and as a member, in various capacities of fruit growers' organizations in Oregon, Washington and Montana were considered. Since 1915, the writer has had an opportunity to visit and make somewhat close study of various associations in Texas and Florida.

.....

## HISTORY.

Marketing organizations, controlled by the growers, are of comparatively recent origin in this country. In practically all cases they have arisen from absolute necessity. So long as the producer could make a little profit under the old system of consignment to middle men he was unwilling to cooperate with other growers. The largest and most successful organizations apparently have arisen where there was a specialization on some one crop, as the citrus fruits of California and Florida, the apple of the northwest, the vegetables of the south and east, etc. For the purpose of this study the most prominent organizations of each type have been studied and a few will be briefly discussed.

### California.

Shipment of fruit on a commercial scale from California may be dated from the completion of the Pacific Railway in 1869. While a few shipments had been made by boat and wagon before this time, most of the fruit had been marketed at the nearby mining and lumber camps and the few large cities.

The first year the railroad was completed, a few of the largest growers shipped altogether about 300 tons of fruit. Only the most choice product, that would be a novelty in the eastern cities, could be profitably shipped, for the freight rate at first was excessive. As an example, \$1,360 per car was charged to Chicago. The only cars supplied were cattle or box cars, so that nothing but the hardiest and longest keeping fruit could be shipped. From

time to time the freight rate was reduced, but the schedule was so slow that only hardy or dried fruit could be shipped by freight. Most of the fresh fruit was hauled on passenger trains, and as late as 1884 the rate to Chicago was \$800 per car and correspondingly high to other eastern points; also the charges had to be guaranteed by the shipper before the railroad would accept the consignment.

By this time a number of small local associations had been formed in a number of places, but they were too small to attract much attention from the transportation companies. In 1885 the Southern Railroad offered to put on a special fruit train if some associations would guarantee at least 15 cars daily. This train was to be composed of vestibuled cars and the rate to Chicago was \$4500 for the train or \$300 per car. To meet this problem the California Fruit Union was incorporated for \$250,000, par value of share \$1. Only growers might own stock, but they were allowed to subscribe at the rate of one share for each acre of bearing fruit, owned or controlled by the stockholder.

After much persuasion, five local cooperative associations shipping deciduous fruits joined. No shippers of citrus fruit accepted the offer. The organization was never a success. At no time did it ship more than nine cars of fruit in a day. In 1887 the railroad reduced the minimum for a fruit train to ten cars at \$4000. Still the organization did not get enough support to make it a success. Over half of the fruit was shipped independent of any organization.

When the railroad reduced the minimum for a special train to ten cars, the independent shippers organized for the sole purpose of assembling enough fruit through one organization to take advantage of this train. However, the fruit was sold independently, each shipper competing with the others in the markets.

The California Fruit Union tried to affiliate with the other shippers, but was never very successful. The benefits of shipments, for which the union was organized, kept going to others, so it suspended in 1894. The same year the California Fruit Exchange was organized. The idea of this organization was to federate all of the local unions into one central exchange, that would have enough power to control the market through restricting shipments. It failed because of lack of support. This same year the California Fruit Growers' and Shippers' Association was organized. It was fairly successful for five years, but finally failed through lack of loyalty of its members.

In 1901 the California Fresh Fruit Exchange (now the California Fruit Growers' Exchange) was organized. This is a non-profit corporation with a paid up capital of \$1,700. It is formed by 17 district exchanges representing 115 associations composed of about 6,500 growers. It is managed by a manager and board of 17 directors representing each of the district exchanges. It does not buy or sell fruit, but furnishes marketing facilities for its members at a pro rata cost. It exercises no control, either directly or indirectly, over any sales or purchases. Each shipper reserves the right to fix his

own price and to say what market his fruit shall be sold in, and has control over his own trade marks, etc. The exchange provides bonded salesmen in the principal markets and exercises supervision over them. It also gathers telegraphic information for its members. It takes care of litigation for them, handles claims, conducts an advertising campaign, etc. This is done at cost. The exchange declares no dividends, but levies an assessment on each district for its ratio of expenses, based on the number of boxes shipped.

This exchange has been very successful. Over 75% of the some 12,000 persons engaged in the growing of fruit commercially in California shipped through some form of cooperative association and over 60% of this was shipped through the California Fruit Growers' Exchange. The same officers and directors control the Fruit Growers' Supply Company, a million dollar company, through which most of the association's supplies are purchased. This organization will be discussed under the head of "Purchasing Supplies in Quantity."

California Associated Raisin Company.

In 1879 California for the first time produced a one million pound crop of raisins. In 1890 this had risen to twenty-eight million pounds, and by 1915 California was producing two hundred and fifty million pounds of raisins annually. The returns had dropped from 5 cents per pound in 1890 to 1 1/2 cents per pound in 1908. In 1909 it was estimated that eighty million pounds of raisins could not be marketed. The growers were confronted with a condition that demanded drastic action. In the year 1909 the California Raisin Growers' Company was organized and a prospectus issued stating the primary object to be:

"To formulate and carry out a business policy that will ultimately result in the placing of the raisin market on a staple basis."

The plan was to capitalize at one million dollars, provided enough growers came in. One of the primary objects was to buy outright the eighty million pounds of surplus raisins and, by eliminating brokers to sell directly to the trade at a profit. The growers coming in had to agree to sell their present surplus, and also contract for three years, with a two years' option to sell their entire output to the Company. Contracts were binding on those signing; however, only on condition that enough growers come in to carry the plan through. No mass meetings were held, but the plan was placed before the growers and all questions thrashed out and answered through the local newspapers.

Not until April 1913 was enough support secured to put the plan in operation. Not only was the product sold to the regular trade through traveling salesmen, but a strenuous advertising campaign was conducted to increase raisin consumption. In 1914 one hundred thousand dollars was spent in advertising, and so profitable has this been, that two hundred and fifty thousand dollars has been appropriated for advertising during the season of 1916 - 17. Practically the entire output of fancy raisins is sold under the "Sun Made" brand.

From the start the organization has been remarkably successful. It has sold three crops, aggregating 300,000 tons, at a

price that returned to the grower not less than 3 1/4 cents per pound, and this in the face of very trying and uncertain market conditions for the past three years.

One reason for its success has been, that from the start it has controlled the larger part of the output of raisins. It started with a larger per cent controlled than the California Citrus Exchange had secured in the citrus field in fifteen years. It has steadily fought to increase its control over the raisin industry. By means of its advertising it has succeeded in interesting not only its members, but the commercial clubs and business interests of Fresno County in urging all raisin growers to join. On February 14th, 1916 the entire raisin territory declared a holiday in order that all might work with the obdurate growers. As a result of this, the California Raisin Growers' Company claim to have secured practically every raisin grower of California as a member and to represent the entire state.

#### Northwestern Associations.

The first really successful marketing organization in the northwest was organized in Hood River, Oregon, in 1893. This was primarily to take care of the increasing strawberry acreage and was known as the Hood River Fruit Growers' Union. In 1902 the Hood River Apple Growers' Union was incorporated to handle the apples. This has since absorbed the Hood River Fruit Growers' Union. The year before organizing this association, apples were netting the growers only eighty cents per box. The next year the union returned two dollars per box and the following year two dollars and sixty cents per box, on the average, was secured. So successful has this organization been that practically

every fruit district of the northwest has one or more associations modeled somewhat after this one.

Local associations had grown stronger in practically every district until 1910 - 11. For various reasons in that year, there was general dissatisfaction in most of the fruit growing districts, and numerous associations were formed through splitting up of the old ones. In Hood River alone there were formed three different associations and Hood River is pointed to as a model for efficient management and loyalty of its members. There were various causes for this division. In some cases poor management, or politics in management. In others, disloyalty of the members through being offered better prices outside, and in some cases even the manager has been said to have proved traitor to his own association and sold outside for a little better price. No doubt much of this dissatisfaction was caused by the middle men discrediting the organizations by offering better prices outside. In any case, there was general dissatisfaction.

As far back as 1910, while many of the growers were breaking loose from the established organizations and forming others, some of the farsighted shippers were advocating close relations, instead of more organizations. In December, 1910, the President of the Oregon Horticultural Society, at a meeting of the Washington Horticultural Society, invited growers interested in organizing a central selling exchange to meet in Portland, Oregon in January, 1911. This meeting adjourned to meet in Walla Walla, Washington the following February. After much discussion, a tentative plan of

organization was outlined and a committee of eleven, representing the eleven natural geographical districts of Oregon, Washington, Montana and Idaho, were elected and instructed to each present this plan to the growers of their districts. The writer was a member of this committee, representing the Lewiston - Clarkston District of Idaho and Washington. The committee had several meetings and perfected a preliminary form of organization, but not enough of the principal districts to be induced to forget their neighborhood jealousies to insure sufficient tonnage to launch the movement, and it was abandoned.

In 1912 there was a large crop over practically the entire United States and the northwestern growers made almost nothing, some even losing money.

After this disastrous season, some of the growers began to realize that internal contention and competition was running the industry, and in December, 1912 organized the North Pacific Fruit Distributors. This was incorporated under the non-profit making laws of Washington. Not all of the districts came in that year, but the distributors handled over five thousand cars of fruit the first year, and of this, 83 per cent was sold f. o. b. shipping point. The distributors gave good satisfaction generally in 1913, and fair prices were realized. In 1914 there was another good crop over most of the United States and Canada. This, coupled with the European war, again resulted in very low prices. There was much cutting of prices between the marketing organizations and large quantities of fruit were sacrificed on the auction market and consigned recklessly. The unorganized growers

generally lost money again.

According to the manager's report, dated November 10th, 1915, during the twenty-eight months that the North Pacific Fruit Distributors have been doing business, they have done \$1,026, 701 worth of business, 97 1/2 per cent of its fruit being sold for cash f. o. b. shipping point. The average time between dates of sale and remittance of proceeds from the central office to the shipping association has been twenty days. The losses, through inability to collect, aggregated \$418.07, or 5/100 of 1 per cent of the business done.

The Hood River District withdrew from the distributors for the season of 1915. They claim that the greater part of their output is confined to two varieties that are not grown very extensively by the other districts and that for this reason they can do better alone. The other districts in the main supported the distributors, although they lost their president, a Hood River man. While the distributors have not been able to eliminate competition between the different districts and the different organizations of the districts they have largely standardized in the industry. A certain grade comes nearer meaning the same thing over the entire northwest than formerly; *and* *now* A uniform standard for grading has been adopted by most of the northwestern apple shippers; a copy of this will be found in the appendix.

The matter of competition between the different organizations has engaged the attention of the growers more than any other question for the last few years. In February, 1915 a growers' council was organized, composed of the representatives of the different growing and

shipping interests, cooperative and private. The purpose of the organization as stated was: "For the purpose of securing, so far as possible, proper and legitimate cooperation, which will lead to obtaining for the fruit growers of the Pacific northwest the full amount for their fruits in the markets of the world to which they are entitled; and for the purpose of preventing unfair business methods by the various shippers and handlers of fruits, which will adversely affect the interests of the growers of such fruit, and for the purpose of further advancing the welfare of the fruit growers of the northwest." This organization apparently failed from lack of support while in the process of formation.

Fruit Growers' Agency, Incorporated.

Through the cooperation of the growers, the selling agencies and the United States Department of Agriculture, an organization known as the Fruit Growers' Agency Incorporated, was organized in February, 1916 with headquarters at Spokane, Washington. It is a get-to-gether organization of all growers and sellers for mutual protection.

This organization is not a selling agency, but a clearing house of information, and provides a basis, and facilities whereby the selling agencies can carry out the provision of a uniform contract between the growers and their independent selling agencies. Membership is divided into two classes - active and passive. Active membership is open to all northwestern resident selling agencies having a tonnage of not less than an average of 100 cars per season. Individual growers, producing one or more cars per season, may be active members under the same terms as dealers. Under a corresponding tonnage condition, passive membership is open to all local associations

affiliated with selling organizations, as well as to individual growers.

Active membership costs \$100, passive membership \$5. Passive members receive the same service as active, but cannot hold office or vote.

The uniform contract is the instrumentality around which the entire movement and organization is centered. *regards such factors*  
It is as follows:

**"UNIFORM CONTRACT FOR THE GROWERS AND SELLING AGENTS  
OF FRUITS AND PRODUCTS IN THE  
PACIFIC NORTHWEST.**

In consideration of the mutual advantages to be derived herefrom, it is agreed between the parties to this contract as follows:

"I. The grower shall have the exclusive right and authority to fix the price at which his products or any part thereof may be sold by the selling agent, but in event the price so fixed shall be higher than the best market price obtainable, after offering the same the selling agent shall in no wise be held responsible for failure to negotiate sales at such prices. *price,*

"II. It shall be the duty of the agent to cooperate with all growers' resident selling agents who are members of the Fruit Growers' Agency, Incorporated, for the following purposes: *method of cooperation,*

"(a) To secure information as to crop conditions in order to determine the economic values of varieties and grades.

"(b) To work in close harmony with growers with the aim of securing uniform methods in the harvesting, grading, and the physical handling of the fruit from tree to car; and to secure a standardization and enforcement of the grading and inspection rules of the States of Oregon, Washington, Idaho and Montana.

"(c) To agree upon a date after which no contracts for tonnage shall be entered into.

"(d) To discuss in conference market conditions and experiences with various mediums used in the markets for the purpose of ascertaining the most efficient agencies and market outlets for the economical performance of their mutual contract. *mutual information*

"(e) To secure improvement in transportation and storage service and conditions.

"(f) To work out definite plans for the development of various domestic and Canadian markets, utilizing experienced men and the combined resources of the said agents.

"(g) To develop foreign markets along the following lines:

*develop  
foreign  
markets,*

"(1) To conduct comprehensive foreign investigations for the purpose of knowing trade demands and making reliable trade connections..

"(2) To see that the fruit is prepared for market so that the grade and pack may be in accordance with the best trade demands.

"(3) To supervise the physical handling of the shipments through to final destination and to secure adequate insurance so that the hazards may be reduced.

"(4) To secure capable foreign agents to conduct sales abroad.

"(5) To expand old markets and develop new ones by direct contact and through the solicitation of special agents.

"(6) To devise ways and means to safeguard and secure prompt collections.

"(7) To secure adequate transportation facilities by underwriting steamship charters and promoting new fruit trade routes.

"(h) To pool proceeds of sales and share, pro rata, any loss sustained in the development of new markets according to the varieties and grades over definite periods, so that profits and losses therefrom may be equalized.

"(i) To secure the standardization of agents' accounting records, to the extent that all account sales issued by the said shipping agencies will be figured on the

same basis and in such manner that they will be uniform, allowing true comparisons to be made by the grower between the services rendered and prices secured by the different agencies.

"(j) To secure an annual audit of the sales records of the current season's business of said agents by firms of certified public accountants of recognized standing, the reports of these audits to be available to the growers not later than one month prior to the closing of the contract period for the next season.

"(k) To make all possible legal and banking arrangements for the financing of the growers.

"(l) Advancements shall in no case be made in such manner as to pass title of the fruit."

*+ month  
financial  
difficulties  
as much  
a possible.*

In July 1916 they claim to have made satisfactory progress and to then be in control of 75 per cent of the apple and soft fruit tonnage of the Northwest. The constitution and by-laws will be found in the appendix.

#### Central States Associations.

The need for organization apparently has not been felt by the growers of the Central States to the same extent as by the growers where more specialized crops are grown. Only in a few places have successful associations been formed. Occasionally, organizations that are models of their kind have grown up, however, they are in districts that specialize rather extensively and where they had to cooperate or abandon the industry. Some of the most noted of these organizations will be mentioned.

#### Council Bluff Grape Growers' Association.

A large acreage of grapes is raised near Council Bluff, Iowa. As early as 1892 the growers felt the need of a marketing

organization and organized the Council Bluff Grape Growers' Association, with a membership of only eighteen or twenty, representing about 400 acres of grapes, berries, small fruits, apples, etc. The membership in 1913 had grown to 110, representing ten times the acreage in bearing that they had when it was organized. Also, since its organization, the total acreage of bearing fruit has increased over 900 per cent and the population of the territory fully 80 per cent. The association was only incorporated for \$1,000. par value of the shares \$10. The price of the share has remained the same, but the capitalization has increased to \$35,000.

A uniform charge of 10 per cent is made on all fruit handled. The association also handles for outsiders at the same commission. The members usually get a rebate of about 4 per cent on what they have sold, so the cost of handling is actually about 6 per cent for members. The organization also purchases supplies for both members and non-members, but they are furnished to members cheaper than to non-members.

For the first few years the association had much opposition from the commission men, but the members realized that they must stick together or quit the business, for before the association was organized often the commission men would not only make no return for fruit consigned, but occasionally call on the grower to pay part of the freight. Now, practically all of the prominent growers are members and all realize a good price on their products. About \$100,000. worth of business is done annually.

#### Wauthena Fruit Growers' Association.

Just across the Missouri River in Kansas, West of St. Joseph,

Missouri, is another fruit district, in the same soil as the Council Bluff, i. e. the loess soil. At Wathena, Kansas, prior to 1905 they were shipping through five or six dealers and getting very poor returns. In 1905 the Wathena Fruit Growers' Association was organized with only twelve stockholders. For the first few years it had hard sledding, due to the opposition from the private dealers, but in spite of this opposition it has been successful and controls most of the fruit shipped from that district. Land values have increased from \$20 to \$400 per acre. The association handled in 1913 about \$300,000 worth of business.

#### Ozark Fruit Growers' Association.

In the Ozark region of Arkansas and Missouri, there is a large acreage in bearing orchards, berries, apples and peaches. There are a number of local associations in that section doing good work, but competing with each other, as well as the independent shipper. As there was no central organization, they were at the mercy of the middleman. In 1904, the Ozark Fruit Growers' Association, composed of independent shippers as well as organizations, was organized. Counting independent shippers and members of affiliating associations, it markets the crops for about 2,500 growers and handles over 69 per cent of the total output. While it was originally incorporated to handle apples, it has been of more benefit to the peach and strawberry growers than to the apple grower.

In spite of opposition from middlemen, it has been successful from the start. It has standardized, to some extent, the pack of the Ozark region and its brand is favorably known from Butte, Montana to

New York City. It is a model for efficient management, all expenses having been met by a 3 per cent charge on the products handled. In the case of strawberries, particularly, the returns to the growers have steadily risen, as the following figures, showing the average price per crate for a number of years after its organization, will show. This is for twelve local associations before and after they had affiliated with the organization:

Table No. 1.

Acreege price per crate for strawberries.

1904 Shipping independent	\$0.90 per crate
1905 Shipping through associations	1.10 per crate
1906 Shipping through associations	1.32 per crate
1907 Shipping through associations	2.13 per crate
1908 Shipping through associations	1.80 per crate
1909 Shipping through associations	1.93 per crate

The data on the same associations is not available since that time.

Southern Associations.

Georgia Fruit Exchange.

Probably the most successful of the Southern Associations handling deciduous fruit is the Georgia Fruit Exchange. The peach growers were burdened by the excessive charges of commission men and had made several attempts to organize, which resulted in failures from various causes, chiefly; 1st, they did not have adequate financial support; 2nd, they were controlled and organized by commission

men; 3rd, they only shipped to large markets and did not properly distribute the supply.

In 1908 the Georgia Fruit Exchange was incorporated for \$50,000 and started with a pledge of about 50 per cent of the Georgia peaches. This is not strictly a sales agency, but members have the privilege of shipping through any agency or dealer they may desire. However, the association maintains agents in the principal markets to look after shipments, adjust claims, etc. The regular commission for handling this fruit is 10 per cent, but the Exchange has made a contract with the various dealers for a 3 per cent refund to the Exchange to pay its expenses. The organization has been very successful and the tonnage handled by it has increased every year.

This increase is shown by the number of cars handled by it during the season of 1916. Of the state's total of 3,199 cars, the Exchange members contributed 2,278 cars, or 71.1 per cent. Prior to 1912 the records were not kept so that a comparison could be made, but since that time the amount handled by the association has increased, as the following figures will show:

Table No. 2.

Per Cent of Total Crop Handled By Association.

1912 per cent of total crop handled by association	63
1913 per cent of total crop handled by association	57
1914 per cent of total crop handled by association	68.5
1915 per cent of total crop handled by association	67.1
1916 per cent of total crop handled by association	71.1

Approximately all of the 28 per cent that shipped independently

represent a few large growers. About 90 per cent of the growers shipped through the Exchange.

The East Texas Fruit and Truck Growers' Association.

One of the most unique fruit growers' association in the South is the one through which the majority of the tomato growers near Jacksonville, Texas, market their product. This is simply an association of growers without capital stock - in fact is unincorporated. This association was organized at Jacksonville, Texas in 1913. The territory covers the country surrounding Jacksonville, including about twenty shipping points. At the annual convention delegates from these shipping points elect a board of directors. The delegates have one vote for each car load of truck or fruit shipped from their station the previous season. The board of directors then elect a sales agent and agree to market all their fruit through him. The organization is financed by deducting a fixed amount per package and paying the sales agent a commission. This is on a sliding scale. During the year 1914 the association handled \$235,000 worth of products. Until the death of the sales manager last year, he has been employed each year.

The farmers pick the tomatoes and pack them at home under directions furnished by the association. While there has been some trouble over poor packing, the association has been remarkably successful.

Previous to the organization of the association, the present sales agent and two other men were dealing in truck at Jacksonville,

and there were five or six other dealers covering the territory surrounding Jacksonville. During the shipping season Jacksonville was the headquarters of from fifteen to fifty agents representing northern firms. The industry could not stand this overhead expense and prosper.

#### The Florida Citrus Exchange.

This organization is a cooperative organization composed of Florida citrus growers. Before the organization of the Exchange in 1909 the fruit was handled principally by speculators. The prevailing custom was to buy the fruit on the tree. The grower then had no further care or responsibility - the buyer took all the risk. He, however, allowed a wide margin for this risk, and often the grower did not realize enough to pay expenses. The more progressive growers realized that this condition could not continue if the business was to continue, so in 1909 the Florida Citrus Exchange was incorporated.

This is a non-profitable organization, consisting of three main divisions: the association, sub-exchange and the Florida Citrus Exchange. The association is composed of growers of citrus fruit, and it owns and controls the packing house, determines the grade and pack, usually has charge of harvesting, as well as packing the fruit of its members, and in many cases does the spraying and pruning of the members' groves. In short, the association has complete charge of the fruit until it is loaded on the car ready to be sold. As few as three growers may organize an association. The idea is to have one in every community or at every shipping point.

The sub-exchange is composed of one delegate from each association in a county or other division that may be agreed upon. Three

associations may organize a sub-exchange. The object of the sub-exchange is to collect into one group representatives of the associations in a given locality where the growers have the same kind of fruit or the same habits, for these may be entirely different from those of another community. The principal function of the sub-exchange is a forwarding agent for the grower; it is the point of contact between the Exchange on one hand and the association on the other. Just as the association is responsible for its member's fruit from the time it hangs on the tree until it is loaded in the car, so the sub-exchange is responsible to the association from the time the fruit is loaded in the car until it is sold and paid for by the exchange.

The Exchange is the sales agent for the fruit. They have a large organization of salaried salesmen in the principal markets. This organization distributes, sells and collects for the fruit. The proceeds are turned over to the sub-exchanges for distribution to the association and then to the grower.

While this is a somewhat complicated organization, it has been highly successful. The writer visited Florida in the fall of 1916, met the president and manager and inquired minutely into its methods of doing business. All growers that were interviewed spoke in the highest manner of its record.

#### Eastern Associations.

Perhaps the best known association on the Atlantic Coast is the East Shore of Virginia Produce Exchange. This exchange operates over a peninsula seventy-five miles long by ten miles wide. The growers are composed of the best vegetable and small fruit producers in the

country. Up to 1900 they had two methods of marketing, i. e. consigning to commission houses and selling to local buyers. Neither was very satisfactory. The large cities were over supplied and the small ones neglected, also there was too much difference between what the producer received and what the consumer paid. In 1900 the East Shore of Virginia Produce Exchange was incorporated. This was a combination of growers and local associations organized to sell directly to the wholesaler and eliminate consigning.

They have had a hard fight with the commission men, but appear to have won out through control of products. They have a close contract with their members, and if one is caught selling outside of the association, he cannot ship through it again that season. He either has to be for it or against it, there is no middle ground.

They have three kinds of members: First, stockholders who must own at least one share, but may own more,- share par value \$15. Second, tenants of members,- they do not have to pay any fee. Third, shippers only. If one does not care to purchase stock at \$15. he can ship through the association by paying a membership fee of \$1. However, he has no share in the dividends and has no vote.

To defray expenses, a 5 per cent commission is charged on all goods handled by the Exchange, and on consigned goods 8 per cent is charged by the commission house, of which 3 per cent is returned to the association. At the end of the season whatever profits have accrued after paying all expenses and a 10 per cent dividend, one half is added to the surplus and the rest pro rated among the shippers.

The paid up capital in 1913 was \$42,000 and the surplus

\$108,000. The refund in 1914 was \$46,600. Land values have increased from \$30 to \$200 per acre and the association does about 75 per cent of the business in the district served. The business is rapidly increasing as the following from the treasurer's report for 1914 will show:

Business gross 1913 .....	\$4,783,910.98
Business gross 1914 .....	<u>5,893,942.01</u>
Increase for year 1914 .....	1,110,031.03

#### Canadian Associations.

While there are numerous associations in most districts of Canada, the only concerted action to combine the different associations into one selling organization, that we have a record of, is in British Columbia. There were a number of fruit selling associations in British Columbia, all competing with each other as is the case in many other places. After the disastrous year of 1912, a number of the most prominent growers determined to have a better understanding among the different selling organizations. Through the medium of the British Columbia Fruit Growers' Association, the matter was taken up with the Provincial Government and a bill known as the Agricultural Association Act was passed.

The greatest trouble in organizing associations of any size in British Columbia appears to be a lack of proper finances. This bill provides that the Government may loan 80 per cent for twenty years at 4 per cent interest on the amortization plan to associations organized under this act and having 20 per cent of their capital stock paid up by the growers. The brings the payments up to 7 1/2 per cent annually, but will cancel the debt in the twenty years. As security,

the government has a first mortgage on the real property of the association, and in addition may call up the unsubscribed capital.

Many of the local associations reorganized under this act, and they combined themselves into a central selling association known as the Okanogan United Growers', Ltd. The stockholders are representatives of the affiliating locals and have a vote approximately in proportion to their tonnage. They claim to control about 70 per cent of the output of the district.

No attempt has been made to even mention all the different districts that have good marketing organizations, much less the individual associations. More attention has been given to California and the Northwest, because the best type of organization has been developed there and a larger percentage of the products are marketed cooperatively than perhaps any other part of the country. Neither has any attempt been made here to differentiate between the strictly cooperative organization controlled and owned only by the producers and the ones that may have outside capital invested and look to dividends on their stock for a profit on the investment.

Particular attention should be directed to the fact that all of the successful associations have arisen from absolute necessity. In other words, they have filled a real need.

Special attention might be directed to points of similarity and difference in the California Fruit Growers' Exchange and the Florida Citrus Exchange. Both have locals that deal with the central exchange through sub or district exchanges. In Florida, the local organization has charge of the harvesting, picking and packing, but does

no selling. All is sold by the district exchange. On the other hand, the California Fruit Growers' Exchange does no selling, but furnishes salesmen through which the local associations may sell if they desire. These may be taken as types of successful cooperative associations and compared with such organizations as the East Shore of Virginia Produce Exchange and the Georgia Fruit Exchange, which are strictly stock companies.

The different organizations might be compared and their forms of organization and administration discussed, but probably no useful purpose would be served.

#### REASONS FOR MARKETING ORGANIZATIONS.

##### Other Producers Organize.

Producers of many commodities are organized and some, such as the Standard Oil Company, American Tobacco Company, United States Steel Corporation and International Harvester Company, have become so powerful that the federal government is trying to dissolve them. Many of these manufacturing and distributing companies are so organized that their products are sold for an established price over the entire country, as in the case of kodak supplies, for instance. The courts have just decided that the manufacturers of cream of wheat may refuse to sell to merchants that sell below the price they establish. There is practically no difference in price of lumber for the same grade in a certain city regardless of the dealer making the quotation on his source of supply.

The nurserymen who supply the orchardist with his trees have formed a national association. They work in harmony, and rarely

plant more than enough to supply the demand for a given season. There is practically no difference in price quoted by different companies for a given district. If more trees are grown in a season than can be disposed of for a profit, they are destroyed, not sold cheaply to compete with next season's demand.

Producers of certain farm products are organizing to determine the amount that shall be grown and the price it shall be sold for. As an example, an association of tobacco growers representing fifty million dollars was organized in Lexington, Kentucky, in May of this year (1915) to fix the grade and price of tobacco and protect the growers against the American Tobacco Company.

All these associations have been organized either to increase profits or to protect their respective industries from competition.

#### Organization of Distributors.

##### Commission Merchants.

Originally the commission man was the shipper's agent. He was employed to receive the products shipped; to give them such care as was needed in inspecting, repacking, etc.; to sell for as high a price as possible and collect and remit the proceeds to the shipper. He was usually compensated by a commission on what he sold. This should have been an inducement to get as high a price as possible. Very often this is not the case, however, for the commission man may be a dealer also and sell to himself or to some other dealer with whom he has an understanding as to the "rake off" he will receive.

As the market is at present organized, the honest commission men apparently fill an important position. They have their regular

patrons, or customers, and each has his list of shippers to secure the products from. It is when they make dishonest returns or combine to control the market to the disadvantage of the producer that they are a menace.

A commission man is employed: 1st.- Because the grower is unable to go to the market and dispose of his products personally - his time is too valuable on the farm. 2nd.- Even if he could be present at the market, he has limited facilities for handling and disposing of his products and often he has had little training along business lines. 3rd.- A man who devotes his entire time and energies to selling should be better able to dispose of the products profitably than the grower who is concerned only with production. Often, however, there are too many commission men for the amount of business done. If this business has to be divided among a large number of middle men, it means that each must make a larger commission, in order to live, than if the same amount of business was done by a smaller number of dealers. This applies to both wholesalers and retailers.

Usually the commission houses are so organized in each city that the producer must sell through them entirely or they will handle none of his products. They are also frequently so organized as to intimidate the jobber and retailer. If they buy a certain article outside, the commission man refuses to sell them other supplies, or if he does sell to them, it will be at a premium over what their "loyal" competitors are paying.

Not only are the commission men of each district organized, but there is a National League of Commission Merchants, numbering among

its members the most influential, as well as the largest, dealers in the country. In <sup>1939</sup>~~1915~~ the league had a membership of <sup>1284</sup>~~283~~ firms from ~~60~~ cities. Many of these firms maintained branch offices in the principal cities, so as to be in close touch with the business of the entire country.

### Jobbers.

A jobber is a wholesale fruit dealer. He buys the fruit from the producer, from a dealer or through a commission man or broker. There may be one or more jobbers intervening between the producer and the retailer. A jobber may also be a commission merchant; in fact, many act in both capacities.

The fruit jobbers have a number of organizations of which the Western Fruit Jobbers of America may be taken as an example. In <sup>1939</sup>~~1912~~ this organization alone had <sup>948</sup>~~275~~ members scattered over the principal western markets. They have the same ideals and work in harmony with the National League of Commission Merchants and the International Apple Shippers' Association. The latter organization is composed of both jobbers and commission merchants.

These associations have standing committees on legislation, transportation, refrigeration, express, storage in transit and, in fact, all things that affect their interests. The secretary has a list of all fruit dealers with their rating and this is available for their members. They have a committee on arbitration to settle disputes between their members or between a member and another dealer or shipper. In the year <sup>1939</sup>~~1912~~, they expended over \$10,000 in conducting the affairs of the association. While they are operating in their

own interest, they have greatly aided the business as a whole by securing better transportation. The need of cooperation among dealers is fully realized, as the following extract from the report of Wm. D. Tidwell, Secretary of the Western Fruit Jobbers of America at the annual convention January 9, 1914 will show:

" I doubt seriously if there has ever been a period in commercial history when organization and cooperation was more necessary than during the past ten years, and this is especially true in your particular line of business."

#### Retailers.

The most expensive part of the distributing system is the retailing. The greatest increase in price between the producer and consumer is that between the wholesale and retail price. The retailer is not to blame in all cases for the increase in price, as he is under heavy expense of delivery, rent, telephone and salary of clerks. There is a large amount of loss on some of the more perishable products that has to be considered in determining the retailer's profit. But even this cannot account for the great increase in the price which he often charges.

Perhaps the greatest fault in retailing, as a whole, is the inflexibility of prices. Wholesale prices reflect the difference between supply and demand, but often, when wholesale prices have gone very low, retail prices are almost the same as when products were scarce, although they rarely fail to rise with wholesale prices. This attitude results in less consumption than would be the case if retail prices were lowered, as the supply increased and the cost to the retailer

decreased. While this is the case with unorganized products, it is not so where they are distributed through a strong marketing organization. A report by G. Harold Powell, General Manager of the California Fruit Growers' Association of America at Memphis, Tennessee, January 16, 1916, presented a chart showing that in the case of California oranges retail and wholesale prices fluctuated with almost mechanical exactness.

Practically every city of any importance has its retail merchants' association. This association looks after the rating of customers, collections, etc. The merchants also frequently have an understanding as to the prices they will pay farmers for produce each day, as well as the prices to charge consumers. If there were not an understanding and combination of distributors this uniformity of prices would be impossible, for some uninformed dealers would sell at a price nearer to what they had to pay for the products and the others would have to follow or lose trade.

Where the producers of most products that the farmer has to buy are so organized as to protect their business and say what he shall pay for what they sell him, and where the distributors of farm products are so organized as to dictate the price at which he may sell, it certainly behooves the fruit grower to organize and have a voice in at least determining the price at which his own products shall be sold. As is shown by the history of most fruit sections, the growers do organize or are forced out of the business

#### Discriminated Against.

The unorganized producer is discriminated against at every turn. When selling through a commission man he may have to pay more

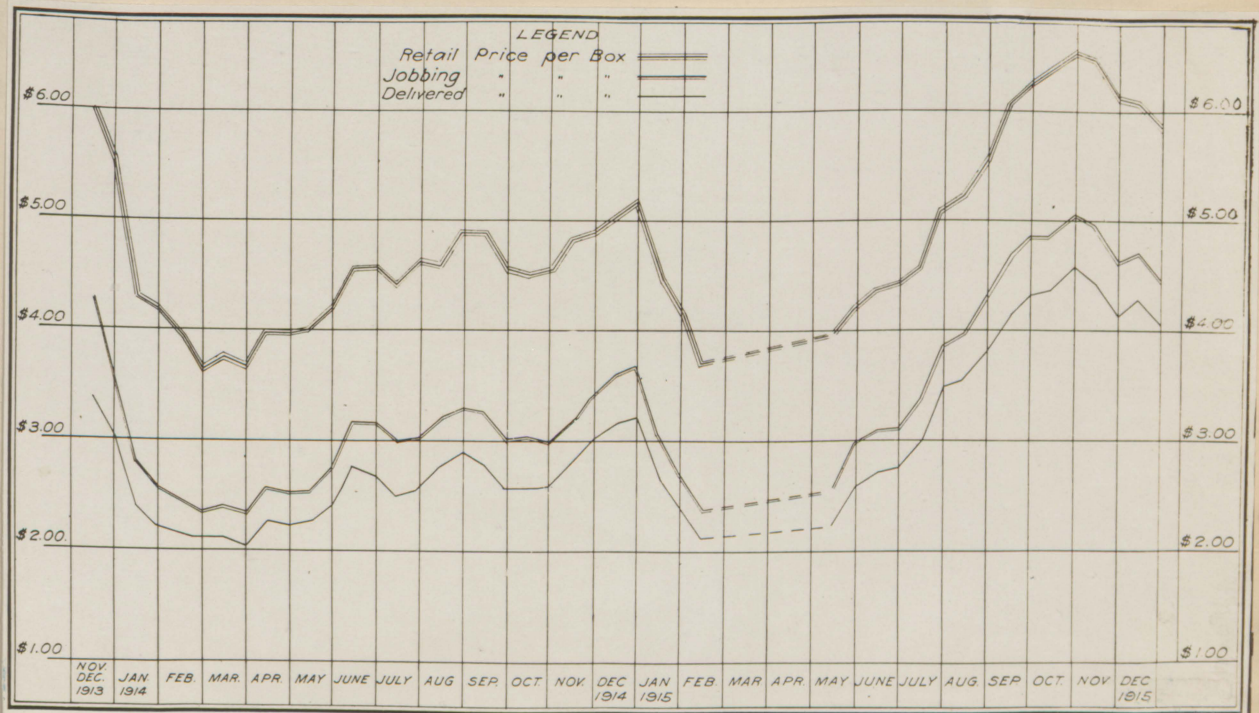


Chart graphically showing retail jobbing and delivery price of California oranges from November, 1913 to December, 1915.

than one commission. The man to whom he consigns, selling to another, and then to a jobber, and all taking toll for their trouble. Frequently the commission man may also be a dealer, so the producer is fleeced in two ways: 1st, - The commission man sells ~~to~~ to himself at as low a price as he thinks the shipper will stand for and offers as an excuse that the market is low. 2nd. - Not only does the dealer make a large profit by getting his products at a low price, but the seller is also charged a commission on the sale. In order that the practice may not readily be detected, the firm often operates under two names. If the shippers should be suspicious and demand to see the bill of sale, it would not show that the commission merchant was also the buyer, or, as has been mentioned before, that there was an understanding between jobber and seller to split the profits. There are also instances where the sale has been made at one price and a lower one reported to the shipper, the dealer pocketing the difference.

As mentioned before, retail prices are very reluctant to go lower as the wholesale price is reduced. Often there is a fluctuation of as much as 100% in the wholesale price of a given commodity in a season, and yet there will be practically no difference in price to the consumer. In this case, both the consumer and producer are discriminated against. The consumer pays more than he should and the producer gets a very small percentage of what the consumer pays. The result is a lower consumption and much produce goes to waste.

Many examples might be cited as to the great difference between the price the farmer receives and what the consumer pays, but

the following will illustrate the point:-

Governor F. E. McGrove, in a recent message to the Wisconsin legislature, cites a number of examples, among which are the following:

Farmers of Waupaca County were selling potatoes at 30 cents per bushel f. o. b. cars. The expense of shipping was 6 1/2 cents per bushel, yet the consumer in Milwaukee was paying 85 cents a bushel, or a difference of 133 per cent.

Cabbage that was selling for \$33. per ton at River Falls, Wisconsin was costing the consumer in Chicago \$300. a ton, while the freight was only \$3. per ton, or a profit to the various middle men of 250 per cent.

The New York Sun of December 27, 1912 says that Mrs. Julian Heath, of the Housewives League, found that Baldwin apples were selling wholesale for \$2.59 per barrel in New York City for No. 1 stock. She attempted to buy them at retail and found them very scarce, many stores having none. Where she did find them on sale, the price was 15 cents per quart, or a profit of over 300 per cent.

Mr. E. H. Shepard, Editor of Better Fruit, Hood River, Oregon, says that he knows of cases where apples were netting the growers \$1.50 per box, freight 50 cents, wholesalers profit 20 cents, making a cost to the retailer of \$2.20, yet they were retailing at the rate of \$6. per box. Only this spring (1915) beans were netting the growers of Crystal Springs, Mississippi 20 cents per bushel, the hamper cost 10 cents, freight and commissions to Chicago 35 cents, or a total cost to the retailer of 65 cents per bushel, yet the consumer in Chicago was paying 15 cents per quart, or \$4.80 per bushel.

The Mayors' Market Commission of New York estimated that the retail grocer made on an average of 20 to 25 per cent profit, therefore he must handle many articles at practically cost and make up on things that are unorganized and on which there is no established price. On sugar there is almost no profit, yet the dealers handle it because the consumers demand it and the producers are so strongly organized that the dealer has to pay what they ask. Often the retailer is supported by the home press, for he is a good advertiser and the farmer rarely advertises and when he does it is individually and unsystematically.

Another case of discrimination that might be cited is the attitude of our government toward the tariff. The industries that are well organized are protected, but on farm products that are unorganized, the tariff is practically removed.

In nothing perhaps has the shipper of fruits been discriminated against more than in the matter of transportation, especially in refrigerator cars. Refrigerator cars were perfected in the late seventies and after several years in the fresh meat trade were first employed in carrying fresh fruit in Michigan. In 1888 they were for the first time used in transcontinental trade by the California fruit growers. At first there were a number of refrigerator lines operating over the Southern Pacific out of California. In 1898 the Southern Pacific announced that they would only operate cars of the Continental Fruit Express, an Armour line, and those of the Earl Fruit Company. In about a year the Earl Fruit Company sold their cars to Armour. This gave the growers no relief, for at the same

time, Armour secretly bought the Earl Fruit Company, although operating it under separate management. The Armour Company was stronger than The Earl Fruit Company and compelled them to sell by secretly giving rebates so they could not compete with them.

In 1904, Jas. Watson, who had been president of Porter Bros., a large fruit firm in California until its failure in 1903, publicly testified before the Interstate Commerce Commission that for years he, as an individual, had leased cars from the Fruit Growers' Express at much less than the published tariff and then rented them at the full rate to Porter Bros. and its affiliated houses and pocketed the difference. His profits from this source were often as much as \$50,000 per year. The Southern Pacific Railroad also publicly testified that its published tariff was the maximum; to be collected only in exceptional cases - as from the small independent shipper. While the published rate from Sacramento to Chicago was \$80 per car,- Mr. Watson testified that he often obtained cars for \$10.35, keeping the difference.

Before 1904 the charge was \$125 per car from California to Chicago, with a further charge of \$25 per car for cars carried on passenger trains. As the bulk of refrigerator cars were carried by passenger trains, the growers were forced to pay this extra charge. By 1906 the rate had been reduced to \$70. In 1904 the Santa Fe Railroad put its own cars on to compete with the Southern Pacific, but as they granted the same secret rebates it afforded the growers little relief.

The Armour refrigerator lines are so strong and have such large shipments of freight, that they can compel railways to use Armour refrigerator cars, or they will divert freight over some other road.

An example is the Piere Marquette Railway in Michigan. This Railroad was too small to furnish enough cars to the growers, so it signed an agreement in 1902 to use only Armour cars. Using this as a club, the Michigan Central was forced into a similar agreement the next year by the Armour lines. While the service is good, the charges are exorbitant, as the following examples will show:

Before using the Armour cars, growers paid \$7.50 for icing from Manhattan, Michigan to Deluth, Minnesota. The next year Armour charged \$45 for the same service. From Paw Paw, Michigan to Dubuque, before Armour furnished cars, the charge was \$10, afterwards it was \$37.50. From Grand Rapids to Boston originally cost \$20. Armour forced the growers to pay \$55 per car. Not only were they making this extra charge for icing, but the railroads were paying 4 cents per mile for the use of the cars.

Mr. W. W. Summers, in an address before the Western Fruit Jobbers Association, said: "From Chicago to Fennville, Michigan, a distance of 137 miles, Armour charged \$25 for icing. From Chicago to Chautauqua, New York, on a non-Armour line, a distance of 550 miles, which is over four times the above distance, the charge was \$10. Again, from Cincinnati to Mobile, Alabama, over the Louisville and Nashville, Armour charged \$45, while from the same point to New Orleans, over the Illinois Central, a non-Armour line, the charges were only \$11.37."

There has been some relief from these exorbitant charges through the Interstate Commerce Commission, but this was at the

instigation of the Commission Merchants and the railroads and not because the growers, as an organized body, had protested.

After allowing for taxes, insurance, repairs, etc., it is estimated that the farmers of the United States on an average make \$700 per year net on their investment and labor. This is less than \$2 per day to provide food, clothing and care for a family that averages four persons. Gross returns for the past few years have increased, but, also, have expenses. Labor is higher, clothing, implements and, in short, everything the farmer has to buy has increased more than his income.

To make this clearer, it can be contrasted with the amount of time other producers work to earn \$1. The mechanic that makes the machinery, shoes, etc. used by a farmer, works on an average of three hours to earn \$1. The railroad employee that runs the trains that carry his produce to market works two and one-half hours to earn a dollar. The farmer who does all the work of producing, takes all the risk of unfavorable weather, markets, etc. has to work ten hours to earn his dollar. There is certainly discrimination somewhere.

#### Organized for Self Defence.

Every group of persons, except the ones who produce food and those who consume it, appear to be organized to protect their own interests and get as large a profit as possible out of it. It would seem logical that the producer must cooperate to protect his interests.

In some cases the consumers have organized to study the high cost of living, and, in a few instances, to try and assist the producer in reducing the cost between what they pay and what he receives. Such

an organization is the Housewives League of New York City. They found that many staple articles, such as sugar, and highly advertised articles, as Gold Dust, Quaker Oats, etc. were handled at almost cost. In order to meet the cost of doing business other commodities that had no organization back of them, such as most farm products, had to bear the cost of handling these articles.

There has recently been organized in California a Citrus Protective League to look after the citrus industry. They have conducted a strenuous campaign against the removal of the duty on lemons. They have also been instrumental in getting the rate on lemons to the East reduced from \$1.10 to \$1 per cwt. It is estimated that this alone saves the growers \$200,000 annually. They now have up with the Interstate Commerce Commission the matter of charges for reicing cars. The railroads claim that the shippers have no right to pre-ice cars, that icing is a part of transportation. The League is trying to prevent the railroads from collecting \$30 per car for icing pre-cooled and iced cars that do not require to be reiced before shipping. This League numbers among its members the most prominent growers and shippers of the state and is filling a want. They do not attempt to do anything already attended to by any existing organization.

This was one of the ideas of the Fruit Growers' Council and is a function partially performed by such organizations as the Fruit Growers' Association, Inc.

#### Economy of Operations.

##### Ship in Car Lots.

The unit for shipment is the car. Not only is the rate less,

but much better service is obtained than where less than carload shipments are made. The time is quicker, for the car is not held for loading and unloading, and the produce is not handled after it is placed in the car until it arrives at its destination. Less than carload shipments are necessarily limited to nearby markets, while car shipments can be made to distant markets, or wherever the best market can be obtained, thus the carload shipment has a much wider range of markets than the small shipment.

With many crops, like strawberries, it is not easy for one man to grow enough to ship a car before the first picked are too ripe for shipment. With many fruits, such as peaches or grapes, a small acreage is profitable, if one can combine shipments with other growers and ship in car lots.

Growers often have a wide variety of products, but not enough to market a car alone. By shipping all of a given variety together, the district becomes better known for a particular product. Often dealers want a straight car of a particular product of a given grade that few growers can fill. For example, a dealer may want a straight car of Spitzenburg apples, 88 to the box, extra fancy grade. No one grower, perhaps, could fill the order, but it would be very easy for an association to do so. Straight carloads of a given grade and variety are more easily disposed of on the large markets than mixed cars of various varieties and grades. Frequently the expense of handling a small shipment is as much as for a carload.

#### Exploit New Markets.

Few growers can afford the expense of exploiting new and

untried markets. They have to ship to markets where they have an established trade, although there might be a better market in other places, but, individually, they cannot afford the expense of a trial shipment or of sending a traveling representative to investigate. All of this can be undertaken by an organization at small individual expense. They can send a traveling representative to the smaller markets and secure a much wider distribution of the products.

Until the northwestern apple growers were well organized, box apples could not be found outside of the large cities. They are now offered for sale in practically all parts of the country. As an example of how northwestern apples were distributed in 1915 the following figures from a report of Charles J. Brand, Chief of Markets and Rural Organizations, United States Department of Agriculture, are taken, showing the number of cars reported by the railroads as moving to the destinations shown below:

Distribution of Northwestern Box Apples in 1915.

Table No. 3.

<u>Alabama.</u>	
Birmingham	15
Montgomery	1
<u>Arizona.</u>	
Bisbee	8
Douglas	3
Phoenix	20
Tucson	4
Miscellaneous	2
<u>Arkansas.</u>	
Little Rock	4
Miscellaneous	2
<u>California.</u>	
Fresno	13
Lodi	5
Los Angeles	290

<u>California (Con't.)</u>	
Oakland	28
Sacramento	13
San Diego	34
San Francisco	329
Stockton	11
Miscellaneous	3
 <u>Colorado.</u>	
Denver	383
Colorado Springs	6
Pueblo	4
Trinidad	6
Wray	2
Miscellaneous	6
 <u>Connecticut.</u>	
Bridgeport	3
Hartford	5
New London	2
 <u>Georgia.</u>	
Rome	3
 <u>Idaho.</u>	
Moscow	5
Pocatello	11
Wallace	8
Miscellaneous	25
 <u>Illinois.</u>	
Chicago	704
Rockford	5
Miscellaneous	4
 <u>Indiana.</u>	
Indianapolis	2
Miscellaneous	1
 <u>Iowa.</u>	
Burlington	4
Cedar Rapids	2
Davenport	3
Des Moines	21
Mason City	3
Sioux City	31
Waterloo	6
Miscellaneous	20

<u>Kansas.</u>	
Dodge City	3
Independence	2
Salina	5
Wichita	7
Miscellaneous	10
 <u>Kentucky.</u>	
Lexington	1
Louisville	8
 <u>Louisiana.</u>	
Lake Charles	1
New Orleans	51
Shreveport	14
 <u>Maine.</u>	
Bangor	3
Portland	1
Miscellaneous	1
 <u>Maryland.</u>	
Baltimore	54
 <u>Massachusetts.</u>	
Boston	257
Brockton	1
Springfield	2
Worcester	2
 <u>Michigan.</u>	
Detroit	22
Grand Rapids	1
Miscellaneous	4
 <u>Minnesota.</u>	
Crookston	17
Duluth	104
Minneapolis	332
St. Paul	127
Miscellaneous	59
 <u>Missouri.</u>	
Joplin	2
Kansas City	81
St. Louis	47
Miscellaneous	1

<u>Montana.</u>	
Anaconda	15
Baker	5
Billings	4
Bozeman	9
Butte	137
Chinook	4
Cut Bank	55
Deer Lodge	5
Dillon	7
Glasgow	31
Glendive	17
Great Falls	86
Harlowtown	5
Havre	13
Helena	34
Lewistown	28
Livingston	7
Miles City	20
Missoula	17
Outlook	5
Roundup	13
Shelby	6
Sidney	4
Sweetgrass	4
Whitefish	27
Malta	4
Miscellaneous	110
<u>Nebraska.</u>	
Alliance	4
Crawford	6
Grand Island	13
Lincoln	32
North Platte	203
Omaha	166
Miscellaneous	9
<u>New Hampshire.</u>	
Manchester	1
<u>New Jersey.</u>	
Jersey City	13
<u>New York.</u>	
Buffalo	15
Elmira	144
Le Roy	35
New York	1025
Rochester	6
Suspension Bridge	249
Miscellaneous	4

North Dakota.

Beach	19
Bismarck	89
Bowman	4
Crosby	5
Devils Lake	5
Dickinson	15
Drake	6
Fargo	57
Grand Forks	40
Jamestown	22
Langdon	4
Leeds	10
Mandan	9
Minot	261
Portal	4
Ray	4
Rugby	25
Valley City	5
Wahpeton	32
Williston	57
Miscellaneous	153

Ohio.

Cincinnati	7
Cleveland	35
Toledo	2
Miscellaneous	2

Oklahoma.

Enid	37
McAlester	5
Muskogee	7
Tulsa	8
Oklahoma City	36
Miscellaneous	18

Washington.

Aberdeen	10
Everett	30
Seattle	438
Spokane	228
Tocoma	39
Miscellaneous	43

Wisconsin.

Milwaukee	51
Miscellaneous	5

<u>Wyoming.</u>	
Cheyenne	94
Diamondville	4
Laramia	12
Rock Springs	6
Sheridan	11
Miscellaneous	37
<u>District of Columbia.</u>	
Washington	20
<u>CANADA.</u>	
<u>Alberta</u>	147
<u>British Columbia</u>	147
<u>Manitoba</u>	45
<u>Australia</u>	34
<u>Saskatchewan</u>	199
<u>Ontario</u>	15
<u>Quebec</u>	5
<u>Hawaii</u>	1
<u>Oregon.</u>	
Portland	80
Miscellaneous	14
<u>Pennsylvania.</u>	
Philadelphia	74
Pittsburg	73
Miscellaneous	2
<u>Rhode Island.</u>	
Providence	9
<u>South Dakota.</u>	
Aberdeen	47
Deadwood	19
Huron	3
Mitchell	7
Rapid City	4
Sioux Falls	17
Miscellaneous	28
<u>Tennessee.</u>	
Memphis	10
Nashville	51
Miscellaneous	3
<u>Texas.</u>	
Amarillo	23
Beaumont	25

<u>Texas (Con't.)</u>	
Corpus Christi	6
Dallas	63
El Paso	13
Fort Worth	96
Galveston	4
Houston	52
San Antonio	20
Texarkana	4
Waco	25
Miscellaneous	98
 <u>Utah.</u>	
Ogden	5
Salt Lake City	14
Miscellaneous	2
 <u>Virginia.</u>	
Norfolk	2
 <u>West Virginia.</u>	
Charleston	3
Miscellaneous	<u>1</u>
Total	.....9407

The following excerpt from a report by the North Pacific Fruit Distributors, dated March, 1915, shows how fruit may be distributed by a large marketing organization:

"Distribution from 1914 to date covers 231 cities in 38 of the United States and 20 cities in 6 Canadian Provinces, and 475 cars have been exported so far to 15 foreign ports and thence to numerous interior markets."

Oranges and lemons are found at every cross-road grocery at a reasonable price, due to the thorough marketing system of their marketing associations.

Another example of what an organization can do in introducing a new product or a new brand is shown by the introduction of the Sun Maid brand of raisins by the California Associated Raisin Company. They claim that in a little more than a year more packages

of Sun Maid raisins were sold than had ever been sold of any other brand in a like period. Intensive distribution has been established in some states. For instance, in New York state, out of 272 jobbing towns all but 79 purchased this brand of raisins. A representative covering Texas, Oklahoma, Arkansas and Tennessee placed Sun Maid raisins with each jobber visited.

Reduce Selling Expense.

During the height of the marketing season it is very desirable that the shipper be informed daily by wire concerning the supply and demand of the markets - which markets desire fruit and what kinds, and the ones that are over supplied. When fruit from the northwest was first shipped to New York and Chicago it was much superior to that on the market, consequently it sold for almost fabulous prices. The next year, on the strength of these prices, every one who had good fruit to ship sent it to these same markets, with the result that they were glutted and the smaller markets neglected.

A grower acting individually has no way of learning conditions, while through a strong marketing organization, reports can be received every day from the principal markets throughout the country, showing the demand and prices that may be obtained. Such an association is also in a position to determine the rating of the purchaser.

It is not only necessary to know the market's demand, but is desirable to learn what other fruit districts are doing, what fruit they have for market, and where they are shipping it. For instance, if individuals in North Yakima, Hood River and Wenatchee, all have a car of

the same variety to ship on the same day, unless they have knowledge of what the other one is doing they all may ship to the same point at the same time, and it might happen that they would ship to a market that could only consume one car. Such a practice would result in the demoralization of that market, whereas, if the three cars could be properly distributed, cities that would otherwise have been neglected are supplied and a good price realized on all the fruit.

The dealers are equipped with a knowledge of the market demands and the growers competing with them in selling must have it also. Large associations can have representatives in the primary markets to look after their interests. If there is any claim of fruit not being up to standard the representative is there to adjust it, whereas an individual would have to go to a great deal of expense or accept the buyer's version. A large association can afford to employ a high grade manager, one who thoroughly knows the business, while a small organization, or an individual especially, could not.

The North Pacific Fruit Distributors, during the first thirty months of its inception established branch offices in twelve of the largest cities of the United States and established exclusive brokerage connections with 105 brokers.

The Florida Citrus Exchange has a very elaborate sales system covering the United States. An association handling citrus fruit exclusively, such as the Florida Citrus Exchange, has little need for its sales force the entire season. They must either be discharged dur-

ing the slack period and another force built up during the shipping season or be maintained at a high cost when there is little need for their service. The same condition exists with an organization handling deciduous fruit exclusively. However, the heavy shipping season for the two organizations just mentioned comes at different times of the year. The president of the Florida Citrus Exchange told the writer last fall that arrangements had been practically completed with the North Pacific Fruit Distributors for the two organizations to use the same selling machines. Not only should such a cooperative arrangement reduce selling expenses but should render the sales force more efficient by their being able to offer the trade something the year around.

Fruit must be harvested when ripe and most of it has to be marketed during a very short period. So a large number of markets must be supplied if the crop is to be sold for a profit. The annual average production of apples for the United States from 1895 - 1900 was 50,609,000 barrels; from 1905 - 1910, 26,844,000 barrels. These enormous crops must be harvested during a few weeks and a large part placed on the market at once. The growers should not be expected to do more than properly harvest the crop, allowing the organization to market it. In fact, it is impossible for the growers to individually market it profitably. They must have their own organization or market through fruit dealers to whom they may have to pay the largest portion of the selling price for the marketing privilege.

There are a large number of factors that enter into the cost of placing products in the hands of the ultimate consumer. The various

items of expense vary widely between general farm products and fruits as a comparison of the tables below will show:

Table No. 4 shows the cost of marketing general farm products all over the United States as estimated by the Federal Government:

Cost of Marketing Farm Products.  
Table No. 4.

Received by producers .....	46.1%
Allowed for reasonable selling expenses and dealers' and retailers' profits .....	38.1%
Waste under existing marketing conditions .....	12.0%
Received by railways .....	3.8%

The only systematized work that has been done to accurately determine the cost of selling fruit is by G. Harold Powell, General Manager, California Fruit Growers' Exchange. This investigation covers the years 1914 - 15 through the cooperation of jobbers and retailers with agents of the Exchange. Over 12,000 price reports have been considered in this survey.

The tables below show the amount of the consumer's dollar that the various agencies secured:

Cost of Harvesting and Marketing Citrus Fruit.  
Table No. 5.

<u>1914.</u>		
	Per Box.	
Fruit on tree .....	\$1.2896	27.7%
Harvesting .....	.1058	2.3%
Packing .....	.3246	7.0%
Selling .....	.0660	1.4%
<hr/>		
F. O. B. California .....	\$1.786	38.4%
Freight and refrigeration .....	.954	20.5%
<hr/>		
Delivered price .....	\$2.74	58.9%
Jobber's margin (gross) .....	.42	9.0%
<hr/>		

Jobber's price .....	\$3.16	67.9%
Retailer's margin (gross) .....	1.49	32.1%
Consumer pays .....	<u>\$4.65</u>	<u>100.0%</u>

1915.

	Per Box.	
Fruit on tree .....	\$2.1896	40.3%
Harvesting .....	.1058	1.9%
Packing .....	.3246	6.0%
Selling .....	.0660	1.2%
F. O. B. California .....	<u>\$2.686</u>	<u>49.4%</u>
Freight and refrigeration .....	.954	17.6%
Delivered price .....	<u>\$3.64</u>	<u>67.0%</u>
Jobber's margin .....	.44	8.1%
Jobber's price .....	<u>\$4.08</u>	<u>75.1%</u>
Retailer's margin .....	1.35	24.9%
Consumer pays .....	<u>\$5.43</u>	<u>100.0%</u>

Not only did the citrus fruit grower actually receive more of the consumer's dollar, after paying the association's selling expense, but the amount paid to jobber and retailer was less than the selling expense of general farm crops. If the difference between freight and refrigeration (17.6% in the case of citrus fruit against 3.8% for general farm products) is considered, the California fruit growers who market their highly perishable products through a strong marketing association, receive a much larger per cent of what the ultimate consumer pays than does the average farmer for his products, most of which is marketed independently.

A comparison of Mr. Powell's figures for 1914-15 seem to show that the association is growing more efficient. The jobber's per cent of profit has decreased, and not only has the retailer's per cent of profit decreased, but the actual margin per box is less in

1915 than in 1914, and the amount the grower received is greater.

Purchase Supplies in Quantity.

Most fruit growers' organizations also purchase supplies for their members at wholesale affecting large savings in cost. Numerous examples of this saving might be cited, among them are the following:

Mr. Wilmerth, of the Rogue River Valley, Oregon, says, "We are saving from ten to twenty per cent on our boxes, nails, paper and spraying material". Prior to the formation of the Southern Texas Truck Growers' Association, the growers were buying their seed individually from the regular seedmen throughout the United States. The average price for yellow onion seed was \$2.50 per pound, and for crystal wax \$4. per pound. The association was organized in 1896, and the next year Mr. Campbell, the Manager, made a trip to the Canary Islands and made a five year contract for yellow seed at 80 cents and crystal wax at \$1 per pound.

The farmers of Annapolis Valley, West Virginia formerly purchased their fertilizers through a number of dealers, none of whom got enough of the business to ship in car lots, consequently the price was high. When the United Fruit Company, a cooperative association, was organized, the fertilizers for the members were purchased wholesale at a very great saving.

After the San Francisco fire in 1906 lumber was in such demand there that the lumber companies notified the California citrus growers that box shooks would be advanced from 13 cents to 21 cents. This notice came from a lumber company controlling 95 per cent of

the pine box material. They also demanded that the growers agree to purchase their entire output from them, amounting to 15,000,000 boxes annually.

The growers appealed to the California Fruit Growers' Exchange for relief, although it was not a purchasing agency. By hunting up small independent mills in Northern California and Oregon it was enabled to supply the needs for that year. This, in spite of the opposition of the lumber trust, which in those cases offered to supply certain local associations with shooks for as low as 11 cents. The growers had had enough experience in cooperation to understand the necessity of loyalty and they supported the Exchange.

In 1907 the Fruit Growers' Supply Company was organized with the same officers as the Exchange. The Exchange had \$1,700 capital, so it is not financed as a purchasing agency. It was necessary for the Supply Company to have ample capital to operate on, for the object of the organization was to purchase large quantities of supplies for cash and supply the members' needs during the season. This capital was obtained by an assessment of 3 cents per box for five years. As they handle about 10,000,000 boxes annually the association was assured of \$300,000 per year. They fought the lumber trust until 1910, operating at a cost of 13 1/2 cents per box, while in some cases the lumber interests were offering to supply them at 11 cents. The growers knew that 11 cents was less than the cost of material. Experience had taught them if they deserted their own organization that they would have to make up the difference to the lumber trust later.

In 1910 the lumber interests gave up the fight. In the meantime the Supply Company had purchased 250,000 acres of timber in Northern California, containing approximately 560,000,000 feet of lumber. They constructed a modern saw mill, and sell all kinds of lumber in the open market and supply about half of the box material used, or enough to establish the price. This has remained at 13 1/2 cents, although the price of stumpage has risen to where it should be worth 15 cents. Every additional cent's cost would mean about \$129,000. per year to the industry.

Their activities have not been confined to box material, but they are now furnishing all supplies needed in the orchards. Formerly they were paying \$2.50 per keg for nails and using 16,000 kegs per year, bought independently. They now buy all from one steel mill at a 20 per cent saving.

Before the organization of a Supply Company the farmers were paying \$300,000. annually for lithographs, buying from a number of houses, each local making its own purchases. The Supply Company buys the same amount from two or three companies for two-thirds of the amount, or a saving of \$100,000 here.

About 200 carloads of tissue paper is used annually for wrappers. By buying this as one order the Company is saving \$400,000. annually.

A potash syndicate controlled the supply of potassium cyanide, used with sulphuric acid, to fumigate against certain scale insects.

The syndicate practically controlled the world's output of potassium cyanide and refused to deal with the Supply Company direct.

After considerable experimenting the Supply Company obtained a sodium cyanide that was even more effective than the potassium, at a cost of 22 cents per pound, whereas, before, the growers had been paying 27 to 30 cents for the potassium. They handle about 600 tons annually and have also reduced the price of sulphuric acid from a maximum of \$24. per ton to an average of \$18. per ton.

It is supplying its members with fertilizers at a great saving as well as securing a standard product. This has grown to be one of the largest items of the business.

For the year ending July 31st, 1914 they did a business of \$3,360,000. It handled 10,355,000 boxes, 214 cars tissue wrapping paper, 40 cars nails, 445 tons cover-crop seed, 600 tons sodium nitrate, 1500 tons sulphuric acid, 26,000 tons of fertilizers, as well as a large quantity of miscellaneous supplies.

After paying a 6 per cent dividend on the capital stock of \$100,000,000. they have refunded to the members \$47,000. and added \$5,000. to a sinking fund. Had the supplies been handled for the members at market prices there would have been a much larger refund. Up to the present the idea has been to charge members only enough profit to cover costs of operation.

They are intending to gradually change the plan and sell at market prices and refund at the end of the season. This will be an incentive to loyalty on the part of the members and induce others to join, for the showing will be much larger if it is returned as a

lump sum than if deducted on each purchase.

In some cases associations are organized for the special purpose of purchasing supplies for the members. In Sutherlin Valley, Oregon, about 3,000 acres of orchards were planted in 1908-10. Most of this was handled by Eastern professional and business men. This land had been sold through a colonization company. The writer was Horticulturist for the Valley for the first few years of its inception and directed the organization of its community life. There was no prospect of any considerable quantity of produce to market for several years, yet, in 1910, the Sutherlin Fruit Growers' Association was incorporated and has employed a salaried manager ever since and filled a very important place in the community by purchasing supplies, spray material, feed, etc., for its members. From the first it has been a success, and while practically all the products of the Valley are marketed through it, yet there are not enough to justify such an association solely as a marketing association.

#### Cold Storage and Refrigeration.

Cold storage plants should be controlled by the fruit growers' association, rather than by private companies. Some of the arguments for home-owned cold storage plants are:

1st. The association should have a storage plant in order to keep the fruit in prime condition until it can be loaded and shipped. Especially is this necessary should there be a shortage of cars in shipping perishable fruit.

2nd. Cold storage plants can be built on cheaper ground at

the shipping point than at terminal points.

3rd. The plant owned by the growers can be run at cost without having to make a profit on the investment by charging high rates.

4th. Home cold storage plants will avoid switching charges at terminal points, which are from \$15. to \$30. per car.

5th. Fruit stored at home can be inspected by the shipper just before shipment and will prevent, in a measure, fraudulent damage claims.

6th. Home orders can be better taken care of, and the trade can be more uniformly supplied than if all the fruit was stored in a few terminals.

7th. Back freight may often be saved where fruit is stored at home.

8th. A large quantity of fruit stored at a jobbing point is likely to have a depressing effect on the market and cause lower prices. The trade knows the fruit already shipped will be sold at some price and will be more independent than if it is at home.

9th. Where stored at home the trade does not know how much is in storage, or to be marketed, and the price will be more uniform than if it knows large quantities are to be disposed of.

10th. Cold storage in transit means that freight had to be advanced, and that the fruit will be tied up until sold. The freight from the Northwest is around \$300. per car. Often this money has to be borrowed and the saving in interest would go a long ways towards paying the harvesting expense.

llth. Railways cannot afford to have enough refrigerator cars to handle all the fruit produced, as soon as it is ready for market, so it is almost necessary that growers provide some storage at home.

The fruit growers of the Northwest are anticipating this condition in a measure and constructing cold storage plants. Such storage will not only prevent a car shortage but will obviate the necessity of rushing fruit on to a glutted market.

The Hood River Apple Growers' Union has a plant that will store about 1,000 cars (600,000 boxes) at a time. This was about the output of Hood River Valley in 1913, with approximately one-fifth of the orchards in bearing. No doubt as the crop increases the capacity of the plants will be enlarged.

With the exception of Yakima Valley, where there is a plant of perhaps 250 cars capacity, this is about all the storage room of any consequence in the Northwest.

The railways have estimated that the best they can do in the way of cars for the Northwest is 10,000 per month during the harvest season. The probable annual production is estimated to be from 30,000 to 100,000 cars within the next few years, so it will be necessary for the Northwest growers to provide more storage facilities.

There is a wide variation in commercial storage rates at the principal markets. The following are the usual prices charged at some of the more important places:

Duluth, 5 cents per box for the first month - 4 cents per box thereafter; insurance 20 cents per \$100. valuation.

Kansas City, 10 cents per box for the first month - 5 cents per box per month thereafter, minimum charge 15 cents; insurance \$1.50 per \$100. valuation per annum.

Chicago, 5 cents per box per month, minimum 25 cents; insurance \$1.35 to \$2.50 per \$100. valuation.

St. Paul, 5 cents per box per month, minimum charge 6 cents; insurance 40 cents per \$100. valuation.

St. Louis, 14 cents per box per season; insurance \$1. per \$100. valuation.

Often commercial storage plants will encourage storage when the market does not justify it, in order to sell space. Should the fruit show signs of deterioration, or any other hazard develop in the storage house, the fruit will be thrown on the market regardless of market conditions.

It is estimated that there are in the United States 1100 cold storage warehouses handling annually food products to the value of hundreds of millions of dollars. Of apples alone, there are usually stored over 4,000,000 barrels.

There has been a great agitation against cold storage food products. Whatever may be said against meats, butter, and so on, deteriorating in storage, it is certain that cold storage allows a much better quality of fruit to be put on the market than would be the case without it, and also gives a longer season, thus not only benefitting the producer, but also the consumer.

In some cases fruit is now pre-cooled before shipment. In

general, this consists in rapidly reducing the temperature of the car to the temperature at which it is to be shipped. This saves a vast amount of reicing cars and, also, by quickly lowering the temperature, reduces decay, so fruit can be picked riper than otherwise.

#### Estimating Crop.

In order to know what prices to charge and the distribution to make, it is absolutely necessary that a fairly accurate estimate of the crop to be marketed be available as early as possible. The individual grower may estimate his own crop accurately, although the chances are that he will not, but he cannot get estimates on that of his neighbors and other sections and compare them with a normal crop, which is necessary in order for the estimates to be of any value.

An organization can properly do this work by having trained men in each district in their territory and by comparing results with other associations.

The United States Department of Agriculture issues a monthly crop report, but it takes into consideration all the fruit, whereas, the shipper is concerned with the commercial crop. These estimates are often misleading, for they are not taken to mean the amount available for sale. The United States Department estimates that only about 49 per cent of the total production is shipped out of the county where grown.

#### Ship What the Market Wants.

Often one city or section of the country wants a certain variety of apples, and is willing to pay a high price for it, while another place may hold this variety in very low esteem.

J. Russell Smith, in the Packer of July 15th, 1916, offers the following figures prepared by a county demonstration agent of Pennsylvania:

Percentage of Grocers Listing Variety as Desirable.  
Table No. 6.

Variety of Apple.	Phila.	Chic.	N. Y.	Pitts.	Balt.	Wash.
Ben Davis .....	22	22	28	15	25	23
Baldwin .....	92	91	89	99	93	23
Grimes Golden .....	63	51	10	64	56	90
York Imperial .....	46	29	51	52	73	90
Fallowater .....	15	--	11	24	12	--
Jonathan .....	74	96	77	53	34	29
Old Winesap .....	51	59	62	42	56	75
Stayman Winesap .....	63	15	48	44	37	58
Rome Beauty .....	63	51	55	69	52	62
Wagener .....	31	50	19	32	--	--
Gano .....	34	19	15	13	16	28
Mammoth Black Twig .....	27	15	19	43	23	42
Smith Cider .....	37	10	--	13	24	41
Stark .....	9	10	--	--	--	--
Talman Sweet .....	21	43	19	13	25	22
Wealthy .....	32	51	40	37	17	7
Northwestern Greening .....	77	43	81	48	41	45
Ruxbury Russett .....	28	40	16	56	36	23
Winter Rambo .....	39	--	--	60	52	20
Smokehouse .....	77	--	--	31	84	54
Winter Paradise .....	10	--	6	18	15	25
Northern Spy .....	73	89	76	92	60	70

Organizations could very profitably conduct such a census and ship to each city the variety it most desired.

Standardize the Industry.

Much of the farm products put on the market are not graded to a standard. If a major portion of the product is good, a good article is marketed; if poor, then a poor grade is offered. Many times good fruit is spoiled by improper, or poor, grading and packing. In individual cases, persons have established a reputation for a dependable

grade and pack, but usually the fruit offered by the independent shipper is not uniform. In some cases the retailers have refused to buy from farmers, because of their poor grading and packing. They would only buy from a dealer who had either graded and packed the product, or guaranteed the pack.

It seems to be human nature for each person to think he raises the best of any product. A grower often cannot see the defects of his own fruit, even if he has a standard to go by. Associations can establish a standard grade and pack and refuse to handle any fruit that does not come up to this standard. One of the reasons that the Northwestern apples, especially from some districts, bring such fancy prices, is because the largest part of the output is marketed through an association that guarantees the grade and pack.

When an association has established a reputation for an honest pack the grade of that association has a recognized standing. A single grower cannot put out enough to impress the market, but an association can. Some of the best known brands of associations are, the "Sunkist Orange" of California; the Blue and Red Diamond of Hood River, Oregon; the Blue and Red "Y" of Yakima Valley, "Skookum" of the Northwest Fruit Exchange, Sun Maid Raisin. The North Pacific Fruit Distributors have just recently adopted the word "Luscus", under which this fruit will be marketed in the future. Perhaps, as the brand is advertised, it will become a household word, as are some of the above mentioned brands.

For a grade to mean anything it must be packed under the

supervision of the association. The Hood River Apple Growers' Union exercise great care in maintaining a uniform pack. The following taken from a statement issued by the association shows the care they exercise in this regard:

"The Union, up to date, has always employed packers and inspectors to insure a uniform grading of fruit. The growers individually pay the packers, and the inspection charge has usually been deducted from the general expense account. A complete system of inspection is attempted from the time the growers begin packing the apples until the apples are finally stored in the warehouse. Apples not graded up to these requirements are set aside for further adjustment, which consists of putting such fruit into a lower grade, or repacking."

The North Pacific Fruit Distributors hold each district strictly accountable for its grade and pack.

#### Rules for Packing and Grading.

There are no national grading rules, but efforts have been made, in a number of cases, to establish standard packages and in some states these have been adopted. Congress has established a standard barrel, and many efforts have been made to establish a standard box, but this has always failed, due to the opposition of the Western growers. Not that they object to a standard box, but they object to having this standard fixed by persons that are not

familiar with their requirements. Some of the Western states have adopted a standard box. Most states have established standard berry crates.

A number of the laws establishing the size of packages are given in the appendix.

While laws may be passed fixing the size of the package, it is much harder to regulate the grade of the product that will be marketed in the package. This can best be secured by concerted action, which is well illustrated by the Northwest boxed apple pack and the California and Florida oranges.

In the Northwest, until recently, there were a number of grades, such as Fancy, Extra Fancy, Choice, Standard and "C" grades, etc. Not all were used by any district and the same grade did not mean the same thing in different districts. There was much confusion, and at every convention of fruit growers efforts were made to standardize the grading rules. When the North Pacific Fruit Distributors was organized it established grades and packs for all associations shipping through it. In 1915 the different shipping associations adopted uniform grading rules for the entire Northwest.

The rules will be found in the appendix.

#### Methods of Enforcing.

Where there are state or national laws governing the size of packages, or grade of fruit, it comes under the Pure Food Law and is enforced the same as any other provision of the law.

Associations usually refuse to handle products for their members which do not come up to the standard. The member caught trying to pass off a poor pack under the association brand is fined and

the fruit shipped in a lower grade, or repacked at the grower's expense.

A number of the northwestern associations run packing schools to instruct their packers how to put up an acceptable package.

Although discussed very briefly here, standardizing the industry is one of the most important benefits that organizations have rendered. Its advantages are so obvious that it needs little discussion.

#### REQUISITES FOR SUCCESS.

##### Must Feel Need of Organization.

##### Specialized Industry.

One of the reasons associations are not more numerous or larger in the Central States is because the farming is more diversified, and perhaps associations will be only successful where the growers specialize on some particular product.

When this question was asked over three hundred representative association, 90 per cent of the answers state that for an organization to be the most successful it should not be limited to a single product, but should handle practically everything grown in the locality.

##### Products to be Handled by the Association.

Table No. 7.

Best to handle more than one product	....90%
Best to be limited to one product	.....10%

The ones that consider that the best results are secured where only one product is handled were located in a very specialized district, such as the lemon growers of Southern California and strawberry growers of California and Southern Missouri. A few thought the organization should be limited to fruits and exclude vegetables,

but most said "everything the farmer raises". Various reasons were given. Some of them are:

"It keeps the grower in line all the time and keeps him from patronizing the commission man. If he sells one thing to an outsider he may sell others and not be loyal to the association."

"All products should be handled that are grown in sufficient quantities to ship profitably. It keeps the trade supplied all the time and reduces the fixed expenses. Also, if there is a season of failure in one thing there is something else to tide it over."

"Not only reduces the fixed charges, but allows a sales force to be more nearly employed the year round. The greater the volume of business the greater the influences that can be brought to bear on the various selling agencies in the different places and upon the transportation companies. There is a large profit in the mixed car business. Also, the people seem to have the department store idea, so that the association which can best fill all the consumers' wants will be the most likely to get the business."

Outside of the fact that the Western associations, in most cases, are specializing in one or two products, there are other things that have made it easier for them to cooperate than it is in the Central West or the East.

In the arid or semi-arid regions they are used to cooperating in the securing of water. Only in exceptional cases does an individual own the ditch in its entirety. It is usually a very expensive operation to bring water on the land and a number of persons cooperate and build the canal. The foundation for cooperation is thus laid and it only

another step to cooperating in marketing the products.

Many of the Western fruit growers are business or professional men who have had experience in combining their interests in other lines of business. They have not the independent, individualistic spirit so highly developed as the farmer, and are more ready to acknowledge the benefits of cooperation. They are more willing to forget individual differences that might interfere with business. They are also ready to pay for having their business conducted by some one who understands it.

Cooperation is much easier in a community that specializes on a limited number of products than in a general farming community where many persons are interested in the same thing, and it is not difficult to get them to work in harmony. It is also easier to get a sufficient amount to ship in car loads. Usually there is not a ready home market in specialized industries for all produced, so distant markets have to be exploited and this in itself calls for cooperation.

#### Unfair Competition.

As has been previously pointed out, unfair competition is one of the factors which makes the individual feel the need of cooperation. A farmer is so constituted that he will fight his own battles alone as long as possible, but there comes a time when he realizes that he must combine with his neighbors or fail in business. He finds that alone he cannot fight combined enemies, and to meet them on their own ground the growers must present a solid front.

As an example of what can be accomplished, when growers are

compelled to cooperate the case of the berry growers of Sonoma County, California may be cited. About twenty-two years ago they organized a cooperative canning company. The manager did not understand the canning industry and it was a failure. The promoters lost money and all were agreed that cooperation was a failure there. The commercial canneries took advantage of this and paid just enough to keep the people from stopping the growing of berries. Nine years ago they were paying \$20. to \$30. per ton, and the growers were thinking seriously of giving up the business.

In the winter of 1908 and 1909 a few of the most progressive growers organized the Sebastopol Berry Growers, Ltd. The older growers remembered the failure of fifteen years before and the promoters had a hard time organizing, but finally succeeded in incorporating for \$50,000., par value of share \$10. Each grower joining had to subscribe for a share for every two acres he had in bearing.

The first year they lost money by shipping to the wrong markets. The commercial canneries also raised the price to \$55. - \$56. per ton, but this only made the growers more determined to support the organization. Next year they shipped their products East, where it did not come in competition with other California or Western stock, and made money. Since then the organization has been a success.

In 1909 they shipped 11 cars at a loss. In 1914 they shipped 80 cars that netted as follows:

Loganberries .....	\$110. per ton
Raspberries .....	154. per ton
Blackberries .....	82. per ton

and the seconds at the same time netted as follows:

Loganberries .....	\$ 58.50 per ton
Raspberries .....	120.00 per ton
Blackberries .....	50.00 per ton

Before this time they had competed with each other at the local cannery, constantly reducing the price. After they were compelled to combine they made money.

Perhaps in no one thing has the fruit grower been discriminated against more than in the matter of transportation. So long as unorganized they are not in a position to demand better service, either from the transportation companies direct, or through the Interstate Commerce Commission. As shown in the history of California associations, the thing that first caused the growers to act cooperatively was poor transportation.

This is very well illustrated by what the North Pacific Fruit Distributors has already done. In a number of cases, local associations were located on branch lines and not only were they discriminated against in the matter of supplying cars, but the rates were much higher to terminal points than other associations, having the same distance to ship, but located on the main line. As soon as the locals joined the North Pacific Fruit Distributors the parent organization forced the railways to give them good service and fair rates. The large organization was powerful enough to compel the railways to give equitable rates, whereas no attention was paid to the small association or the independent shipper by the transportation companies.

#### Over Supply.

So long as there is a demand, at good prices, for all that is

produced there is no incentive to cooperate. So long as each grower can find a good market for all he can grow he is not concerned with markets in which his neighbor is selling his product nor the price he is receiving. Yet, as soon as there is a greater supply than the local markets can consume, at profitable prices to the producer, then he is concerned with his neighbors' competition.

In many localities the growers do not raise sufficient quantities to ship in car lots alone, and it was the opinion of the writer that an association would appeal more strongly to the small grower than to the large one. When this question was asked less than one-fourth of the associations replying said that it appealed strongest to the small grower and 65 per cent of them said there was no difference.

Value of Associations to Growers.

Table No. 8.

Appeals strongest to large grower (association)	12%
Appeals strongest to small grower (association)	23%
Appeals to both alike	65%

The other 12 per cent say that it appeals more strongly to the large grower. The idea was also advanced that while the small grower would be benefitted by shipping through an organization, yet, he thought his output was too small for the association to bother with and sold it, for what he could get, to the handiest commission man. The price received was often much below the market price. While the amount purchased from an individual was small the aggregate was large and gave the commission man a large product and a wide margin on this cheap fruit, useful to break or cheapen the price of the competing product. Perhaps another requirement that may keep the small grower

from joining an association is the price of stock or membership fee. Often in a locality where the majority of stock holders are large growers, the membership fee is almost prohibitive for the small producer. However, in most localities this is graduated to fit the needs of the majority.

With the deciduous fruit growers it is not so much a case of over-supply as inadequate or ineffective distribution. Under a competitive system of marketing, the large markets are frequently overstocked, while small ones are largely neglected. Even when they are not entirely neglected the returns are oftentimes so low that it is not profitable to ship, since the price asked for the fruit is the selling price for the large markets. If the primary markets have more than their demands require the price will be low and will be reflected by the prices received in the small markets.

Often the small markets are entirely neglected, while the large ones are glutted. The small organizations, or independent shippers, cannot afford to cater to the small markets. But these same markets may be very profitable when systematically supplied by a strong selling organization. This is well demonstrated by the citrus organizations. Every small cross-road store is supplied with oranges, lemons and bananas at reasonable prices.

Perhaps the matter of distribution commercially is best illustrated by the Standard Oil Company. There are only a few villages that do not have a representative of this company. So well is their sales force organized that in many cases the grocery stores have quit handling

oil.

As soon as a district has trouble in disposing of its products profitably in the old competitive manner the question of over-supply is brought up. This has been argued and discussed at length in the apple growing districts of the Northwest during the last few years.

The following statistics show that the amount of apples produced in the United States is not increasing, but the amount produced in different sections is shifting:

Produced Commercially in the United States.

Table No. 9.

1895	60,500,000 bu.	1905	24,300,000 bu.
1900	57,000,000 bu.	1910	23,825,000 bu.

The year book published by the "American Agriculturist" shows the shifting in the production of apples from 1905 to 1909 to be as follows:

New England States.

1905	7,665,000 bu.	1907	13,050,000 bu.	1909	6,030,000 bu.
------	---------------	------	----------------	------	---------------

Middle Atlantic States.

1905	27,540,000 bu.	1907	36,000,000 bu.	1909	25,800,000 bu.
------	----------------	------	----------------	------	----------------

Central Western States.

1905	8,730,000 bu.	1907	8,595,000 bu.	1909	9,195,000 bu.
------	---------------	------	---------------	------	---------------

Southern States.

1905	16,500,000 bu.	1907	13,355,000 bu.	1909	10,075,000 bu.
------	----------------	------	----------------	------	----------------

Western States.

1905	6,585,000 bu.	1907	8,025,000 bu.	1909	7,305,000 bu.
------	---------------	------	---------------	------	---------------

This shows that the production has been decreasing in the older states and increasing in the western states, particularly in the far west. This is better brought out by a comparison of the rank in apple production of some of the central western states and some of the far western ones in 1899, and then with the average for 1905 to 1909.

Ranking of States in Apple Production.

Table No. 10.

Rank, 1899.		Rank Average, 1905-1909.
5	Illinois	11
9	Missouri	16
15	California	8
26	Washington	18
18	Iowa	19
20	Arkansas	21
25	Oregon	24
34	Colorado	24
16	Kansas	25
23	Nebraska	26
33	Wisconsin	27
37	Idaho	29
38	Utah	30

Missouri has dropped from ninth place in apple production in 1899 to sixteenth place in 1909. During the same period Washington has risen from twenty-sixth place to eighteenth place. There are no successful apple-shipping associations in Missouri. The larger part of the apples in Washington are shipped through cooperative associations. This state is the headquarters of some of the largest organizations in the Northwest, among them being: The North Pacific Fruit Distributors, Spokane; The Fruit Growers Exchange, Ltd., Spokane; the Northwest Fruit Exchange, Seattle; and The Yakima Valley Horticultural Union, North Yakima.

The Central West is falling behind, and the far West, where the

associations are best organized is rising in production. The Central West, composed of Indiana, Illinois, Missouri, Kansas, Nebraska, Iowa and Arkansas, in 1899 produced 20 per cent of the apples in the United States; in 1905, 10.3 per cent; in 1907, 8.3 per cent and in 1909, 12.5 per cent. The far West, composed of Colorado, California, Oregon, Idaho and Washington, in the same years produced as follows: 1899, 3 1/3 per cent; 1905, 9 per cent; 1907, 9 per cent; 1909 - 10, 7 per cent, showing a gradual increase in the far West and the decrease in the Central West.

While the production of apples shows a falling off, that of citrus production shows a decided gain, as the following statistics taken from the American Agriculturist will show:

Production of Citrus Fruits.  
Table No. 11.

California production 1905-06	7,716,900 boxes
California production 1909-10	10,572,367 boxes
Florida production 1906	3,465,350 boxes
Florida production 1910	6,000,000 boxes

Franklin Adams, Editor, Pan-American Union, says, that the consumption of bananas has doubled in the United States in the last ten years and is now 3 dozen per capita.

In 1912 continental United States consumed over 44,500,000 bunches, or about 60 bananas per capita. The United States consumes about 85 per cent of the entire banana crop of the world.

The bulk of the bananas are grown and distributed by the United Fruit Company, one of the best organized distributing agencies for fruit in this country.

Prof. C. I. Lewis, Chief, Division of Horticulture, Oregon Agricultural College, says that from 1850 to 1897 the population of the United States increased 270 per cent and during the same period the consumption of fruit had increased 2000 per cent. This is especially true of citrus fruits that have well organized shipping associations. While the value of all orchard fruits, as shown by the last census, increased over 1899, 1.8 per cent, apples increased 15.9 per cent and the value of citrus fruits increased 231.3 per cent. California has the best and the most successful fruit marketing organization in the country. This state is easily the first in green fruit production, though as late as 1893 only 5,000 boxes of California fruit had been sold on the New York market. This is a striking example of what organized effort can accomplish in a short time.

#### Good Manager.

Regardless of ability as a business man, a manager's personality has a great deal to do with his success. He must not only be a man who can handle the trade, but one who can gain and keep the confidence of the growers, and to do this he must be strictly honest.

Where the manager has no financial interest other than his salary he has been known to sell out his influence to a competitor. It would seem to be a good plan where a stranger, or one who is not financially interested in the organization, is employed that he be compelled to buy - say ten shares in the organization at the market price, the organization agreeing to buy them back at the market price when he leaves. This would be fair to both, for if the association has

prospered and its stock is worth more than par under his management he should share in the gain. On the other hand, if it has lost prestige under his management and the stock is not worth what he paid for it he should share in the loss that his incompetency caused.

It has often been stated by writers on marketing organizations that more depends on the manager than all other factors combined. W. H. Chandler in "Cooperation Among Fruit Growers", Missouri State Board of Horticulture, says:

"The success of the association depends largely upon the manager. In some cases the personality and industry of the manager alone are responsible both for the successful marketing of the crop and holding the growers together. It is evident that the manager should be a thoroughly well trained business man; a man with sufficient personality to command the respect not only of the trade, but of the members of the association to hold them together, and, if possible, a man who has had experience in marketing fruit. Many associations secure commission men of long experience and of good reputation and this has often proved very successful. Since it is not an easy matter to secure a man that combines all the qualifications necessary in the manager of a successful association, it is evident that the best man should have the place whether he be a member of

the association or not, and whether he live in one corner or another embraced by the association. No politics whatever should come into the election of a manager, if the association is to accomplish anything. He should be paid a salary that will command his best services and make it unnecessary (and not to be thought of) that he will in any way use the association for his personal benefit, other than for marketing his fruit, if he is a grower".

#### Type of Manager.

In order to study the type of man employed as manager of the average association, the writer asked the following questions of over three hundred representative organizations in different parts of the country and tabulated the replies:

1. Is your manager a stockholder or shareholder in your association?
2. Is he a fruit grower or a business man? If both, how long has he followed such occupation and in which is he the most successful?
3. Do you consider it necessary to be a good that he shall also have a knowledge of the growing of fruit?
4. Do you consider it best that the manager be a resident of your locality or a stranger, or is there any difference? Is this considered when you employ a manager.

5. How do you pay your manager; salary, commission, both?

How much?

Manager a Stockholder or Shareholder.

Practically all of the smaller associations employ a member for manager and a number of the larger ones follow the same plan.

Per Cent of Managers Stockholder or Shareholder:

Table No. 12.

Manager stockholder or shareholder .....	83%
Manager not stockholder or shareholder ..	17%

Only 17 per cent went outside of the organization to secure a man to run the business. However, these were the largest and some of them the most successful associations in the country. Of the stock companies, none had a capitalization of less than \$10,000. and most of them were over \$100,000. There was one large organization that was strictly cooperative, which employed an outside man with no knowledge of fruit growing. This is one of the largest sub-centrals in the Northwest and perhaps handles as much or more than any one of the stock companies.

There was almost no comment on the question as to whether the manager was a stockholder or not, but the answer was simply "yes" or "no". In one instance, though, where the manager was not a stockholder, the reply was, while there was no provision to the contrary, there was a feeling that the association would be better served if a non-stock holder was employed. Evidently, however, this is not the opinion of a majority. They seem to have the idea that the organization would be better served by some one who is interested

outside of the compensation he receives for his services.

There are probably two reasons for this condition. (1). In some of the associations, perhaps, the idea, as just stated, is that a man would take more interest in running a business that he is financially interested in. (2). Another possible reason is that the smaller associations do not look very far outside of their organizations for a man, for they can only pay a very small salary, and a number of them only pay their manager for the actual time he is employed.

Where the managers were stockholders all of them were at the same time growing fruit, or at least had fruit as a side line. The following table shows the detailed data secured by a study of the above mentioned reports:

Comparison of Table No. 12 with Tables Nos. 14,16,18.  
Table No. 13.

Table No. 12.	Table No. 14	Table No. 16	Table No. 18
	Both : F. C. : B.M.	Yes : No. : Pref.	Yes : No. : No Dif.
Stockholder	76% : 14% : 10%	57% : 15% : 28%	70% : 12% : 18%
Non - Stock.	75% : : 25%	26% : 37% : 37%	26% : 37% : 37%

Where the manager was a non-stockholder, none of them were fruit growers exclusively. Three-fourths were growing fruit on the side, but were also business men and the other one-fourth were strictly business men with no pretensions to fruit growing.

The Manager as a Fruit Grower.

Of the associations that employed stockholders for managers, over half of them deemed the knowledge of fruit growing necessary for a manager's success. With the associations employing outside men, only about one-fourth of them thought such knowledge necessary and of the

stockholder managers 70 per cent of them thought a manager would not be successful unless he was a resident of the locality, while only about one-fourth of the associations employing non-stockholder managers thought this was necessary. In fact, many of them (37%) thought he would be more successful if he was a stranger.

In organizing an association, growers are often too likely to think because one of their members is a very successful fruit grower he will be equally successful as a sales manager. These two positions call for different training and often the most successful managers are not trained horticulturists. A grower may have the business ability, yet if he is obliged to devote his time and thought to production he is not likely to be as successful a salesman as one who also has a business training. This supposition is borne out by the answer to the second question.

Only 14 per cent of the organizations employed a manager without any business training.

Percent of Managers Business Men, Fruit Grower, or Both.  
Table No. 14.

Manager is a business man .....	21%
Manager is fruit grower .....	14%
Manager is both fruit grower and business man .....	65%

Nearly one-fourth of the managers had no knowledge of fruit growing, while the rest of them were both fruit growers and business men. Organizations employing a fruit grower without any business training to attend to the selling were all small.

The associations employing a business man exclusively were all large. Some of them stated it was more important that a sales

manager possess a business training than be a producer. This seems to be the idea of most authorities on market organizations, particularly cooperative associations.

The largest cooperating marketing organization of deciduous fruits in the country, the North Pacific Fruit Distributors, employs a sales manager who has no knowledge of fruit production. However, the president, who is perhaps equally as successful in the marketing of fruit, is also a grower. Yet he has a business training as well as a knowledge of fruit growing.

G. Harold Powell, formerly Pomologist and Acting Chief in the Bureau of Plant Industry of the United States Agricultural Department, now General Manager of the California Fruit Growers' Exchange, the largest and most successful cooperative fruit marketing agency in the world, says in the Department's Year Book of 1910:

"The successful handling of a cooperative association requires a manager who is competent to assume the general direction of the affairs and business of the association; he must have a high order of business ability, sterling integrity, unusual tact and judgment in handling men and unlimited energy. An association under any other kind of management is not a serious business undertaking."

He further adds: "It is more difficult to direct a cooperative association than a stock company or corporation.- A manager who cannot hold the interest and the confidence of the members, who cannot make them feel that they have a voice in the management, and who fails to develop a progressive, constructive business policy, will fail in

handling a cooperative organization. Nor can such an organization succeed if the directors do not realize that it must have a strong, competent, aggressive, well-paid manager at its hand. It is not too much to say that no single factor has operated against the success of the cooperative associations as much as the incompetent managers selected by the directors of the associations to handle them. A board of directors cannot manage a cooperative agricultural association. The outcome of the organization will be determined in a large degree by the character and ability of the manager."

Of the associations that employed only fruit growers for managers, all of the managers owned stock in the organizations. The following table shows the results of detailed comparison of the above mentioned reports:

Comparison of Table No. 14 with Tables Nos. 12, 16, 18,  
Table No. 15.

Table No. 14	Table No. 12		Table No. 16			Table No. 18		
	Yes	No	Yes	No	Pref	Yes	No	No Dif.
Fruit Grower	100%	0	60%	0	40%	100%	0	0
Business Man	40%	60%	20%	30%	50%	30%	40%	30%
Both	90%	10%	60%	16%	24%	60%	16%	24%

Where the managers were both fruit growers and business men, 90 per cent of them owned stock, and where they were business men only, less than one-half owned an interest in the business. Also, where the organization was managed by a fruit grower with no business knowledge, all of them considered that a knowledge of fruit growing, while not absolutely necessary, was preferable, and none of them thought such a knowledge was not desirable. Less than one-fourth of the organizations employing business men exclusively deemed such a knowledge

even desirable. Half of them thought a knowledge of fruit growing was preferable, provided all the other essentials of a salesman were combined with it, and 30 per cent of them thought this should not be considered at all. The man with both business training and a knowledge of growing fruit were just in between these two extremes. All fruit grower managers said that a man to be successful must be a resident of the locality. Almost one-half of the business men managers said that he would be more successful if he was a stranger, while again the man with knowledge of both business and fruit growing were just in between these two extremes.

Exactly half of the associations reported it necessary that if a manager were to be the most successful he should have a knowledge of fruit growing.

Necessity of Manager Understanding Fruit Growing.

Table No. 16.

Manager should have knowledge of fruit growing .....	50%
Not necessary .....	18%
Not necessary, but desirable .....	32%

Only 18 per cent considered such a knowledge superfluous. The rest of them, while not deeming it absolutely essential, thought it was very desirable, but that other things would be considered first. With two exceptions, the associations that did not consider it either necessary or desirable that their manager know how to grow fruit were very large organizations, probably so large that the managers had nothing to do with the grading and packing of the product. The two exceptions were strawberry growers. Most of the ones that preferred

a manager to have knowledge of fruit growing appeared to prefer this, not because the fruit grower was a better business man, but that he would understand and know how to manage the producers better if he had a knowledge of their problems. Some expressed it that it was not so much a knowledge of the production end that was desirable, but a knowledge of grading and packing, and again, that he should have had experience in producing fruit, in order to advise the growers regarding better methods. Others said that a manager should be chosen for his business knowledge, particularly of salesmanship, but that it would be all the better, as in any business, if he understood the condition under which the product he was selling was produced and prepared for market. Taking the answers altogether, 82 per cent of them preferred that their manager know something of the business beside how to sell the goods.

Of the associations that thought it absolutely necessary that the manager be a fruit grower in order to be able to sell fruit, only 9 per cent of them now employ managers who are not members of the association. The following table shows a detailed comparison of the replies to the above mentioned questions:

Comparison of Table No. 16 with Tables Nos. 12,14,18.  
Table No. 17.

Table No. 16.	Table No. 12:		Table No. 14:		Table No. 18			
	Yes	No	F. G.	B. M.	Both:	Yes:	No :	No Dif.
Knowledge of Fruit growing necessary	91%	9%	13%	12%	75%	52%	18%	30%
No.....	66%	34%	12%	33%	55%	66%	22%	12%
Preferable .....	82%	18%	17%	33%	50%	58%	25%	17%

On the other hand, of the organizations that did not consider this knowledge necessary, almost one-half of them at the present time

are employing outside men as managers and only 12 per cent had managers with no business training, while one-third of the managers had no knowledge whatever of fruit growing.

Manager Resident or Stranger:

A number of writers on organizing farmers' cooperative associations say that the manager should be a stranger in the locality.

Then he will know nothing of neighborhood differences and will not be so likely to be suspected of favoring one grower at the expense of another. Also if his services are not satisfactory he can be discharged without any internal friction. Often if a local man is chosen and it becomes necessary to dispense with his services it causes a break in the organization. No man is so incompetent, at least no man that would likely be employed to manage a fruit growers' association, that he has not some friends and this following would believe that he had not been treated fairly and would probably draw off and cause a break in the association, so the idea is advanced that the best interests would be served by employing a stranger. On the other hand, some writers say that a manager should have an intimate knowledge of local conditions. That the growers will have more confidence in him if they know him, etc. It would seem that the latter is the idea that most associations have.

A little over one-half of them said that it is essential that a manager be a resident of the district.

Manager a Resident or Stranger.

Table No. 18.

Best that the manager be a resident ....	54%
Best that the manager be a stranger ....	22%
No difference .....	24%

Twenty-five per cent said that it made no difference and the rest that the manager should be a stranger. Practically all who advocated a stranger for a manager were large associations. One of the large district associations of the Northwest handling about 6,000 cars replied as follows:

"There is no difference whether a man be a resident of a locality or a stranger so long as he is able to 'produce the goods'. It is purely a matter of efficiency; however, we have found in the employment of district managers (managers to operate our local districts where the fruit is received, packed, shipped, etc.) that the best results have been obtained as a general thing where the manager is not a fruit grower and member of his local organization. Best results have been obtained where the manager was employed because of his known ability to operate a warehouse, handle men, grade and pack the fruit, handle the accounts, etc. In short he must be an expert in that line of work and as a usual thing these kind of men are not employed. Another valuable asset for a manager of a shipping district to have is a knowledge of how fruit looks - what condition it arrives in - at the other end of the line; i.e., its destination, when it is loaded under certain conditions or is in a certain condition of ripeness, maturity, etc."

Another said, "Employ the manager strictly on his merits. He is largely the hub of the wheel. Let nothing stand in the way of ability and manhood." Still another said, "By all means select a manager who is not a resident of the locality in which the office

is located." This was also a sub-central association affiliated with fourteen district associations.

The California Fruit Exchange of Sacramento, California, in replying as to whether the manager should be a resident or a stranger said, "A man's qualifications and experience are the main features for the position, but very often an outsider can command more respect than a local resident." The California Farmers' Union says, "We consider it advisable, if possible, to get a manager who is a stranger to the general patrons of the association, at least at the time of his beginning, as he is held in the highest esteem. However, we first advise considering the ability of a man." On the other hand, one of the large associations of the East says, "It is undoubtedly of advantage to the manager and to the grower that he be well acquainted with them, or at least to have a well established reputation in connection with the business in which he is engaged."

While a larger proportion of the answers preferred a local man, usually little reason for this preference was given. Most of them simply state that he should be a resident of the locality, or something to that effect.

Of the associations that would employ only a resident for manager, 90 per cent of the present managers are stockholders and only a little over half of the ones that would prefer strangers now employ members to manage their business. The following table shows a detailed comparison of the answers to the above mentioned ques-

tions.

Comparison of Table No. 18 with Tables Nos. 12, 14, 16.  
Table No. 19.

Table No. 18	Table No. 12		Table No. 14			Table No. 16		
	Yes	No	F.G.	B.M.	Both	Yes	No	Pref.
Resident	90%	10%	19%	12%	69%	64%	18%	18%
Stranger	66%	34%	0	45%	55%	44%	23%	33%
No difference	66%	34%	0	34%	66%	66%	12%	22%

About one-fifth of the associations that want residents for managers now have managers with no business training whatever, while the associations either expressing a preference for a stranger, or considering that it makes no difference, are not at present employing a manager without some business training, and of the ones that express a definite preference for a stranger, almost half of the present managers have no knowledge whatever of fruit growing and over-one-fourth of them state that this knowledge is not at all necessary.

Compensation of Manager.

The proposition is often advanced that most associations do not pay their managers enough to secure good men; also that too many of them depend on commissions.

Compensation of Manager.

Manager paid a salary .....	80%
Manager paid a commission .....	15%
Manager paid both salary and commission .	5%

The latter part of this, at any rate, is evidently erroneous, as 80 per cent of the associations reported that they pay their manager a flat salary. Fifteen per cent pay a commission and 5 per cent pay both. Only the very small associations pay a commission and practically all of these handle berries or vegetables and with most of them berries are the main crop. It is easy to see that by shipping berries only

they could hardly afford to employ a man for the entire season. In fact, many of the smaller associations only pay a stipend per day when actually employed. Some have paid commissions, but now pay salaries. The amount varies, with the size of the organization, from three dollars a day to five thousand dollars a year. One man stated that all he received was love. The organizations in the far west and extreme east appear to pay larger salaries than in the middle west.

#### Proper Organization.

While usually we speak of any farmers' organization as being cooperative, as a matter of fact, a large proportion of the fruit shipping organizations are stock companies. In only a few states do laws permit of non-profit or cooperative associations being incorporated. Perhaps the most noted of these are California, Washington, Wisconsin and Nebraska. In most other states, in order to incorporate, there has to be a capital stock and after this is sold the organization has no further control over it. If a man goes out of the fruit growing business he is not compelled to sell his share of stock to the association, but can dispose of it to any one he wishes. In this way it might be possible for persons entirely antagonistic to growers' organizations to gain control.

Over three hundred associations were asked regarding their plan of organization and of the associations reporting 63 per cent were stock companies and the rest of them were either incorporated under the non-profit cooperation law or were simply unincorporated

associations.

Capitalization of Associations.

Table No. 21.

Percentage of associations with capital stock .....	63%
Percentage of associations without capital stock ..	37%
Average capital .....	\$ 86,400.
Largest capital .....	250,000.
Smallest capital .....	2,000.
Percentage with \$100,000. capital or over ....	17%
Percentage with \$5000., or less .....	26%

Perhaps the most successful of this latter style are the strawberry associations of Southwest Missouri. In fact, the strawberry associations seem to be the only fruit marketing organizations of Missouri that can really be said to be successful.

The average capital stock for all corporations was \$86,400. The largest capital was \$250,000. and the smallest \$2,000. Over one-fourth had \$5,000. capital, or less.

The Eastern organizations were all stock companies. With the exception of one in Iowa, with \$50,000. capitalization, all central states' organizations that were stock companies were organized with a minimum capital of \$2,000. In a few cases the amount of stock one person may own is limited, but I think the laws for corporations in most states are that each share of stock carries a vote so that it is impossible to limit the voting power to one vote per man if he is allowed to own more than one share of stock.

Support of Members.

The question was asked of the associations previously mentioned regarding the support they received from the growers.

In general, active associations are fairly well supported and control a large majority of the output of their sections.

Fruit Handled by Association.

Table No. 22.

Percentage of fruit handled by association .....	74%
Highest percentage reported .....	100%
Lowest percentage reported .....	10%
Number reporting handling 90% or over .....	40%
Number reporting handling 30% or less .....	6%
Proportion handled by association increasing ..	87%
Proportion handled by association decreasing ..	3%
Proportion handled by association stationary ..	10%

They handled on an average 74 per cent of the products grown in their locality and some of them reported as handling all of it. Almost half handled 90 per cent or more. Practically all of them stated that the association was gaining ground and that the proportion handled was increasing from year to year and only in one case was it reported that it was decreasing.

The members of more than three-fourths of the associations receive better prices than the independent shippers, and none were receiving less. Twenty-three per cent said there was no difference.

Comparative Prices Received by Associations and Independent Shippers.

Table No. 23.

Association receiving better prices than outsiders ....	77%
Associations receiving same price as outsiders .....	23%

Some said they had no way of telling, but thought they received the best price. It was also reported that in certain instances a non-member received better prices than a member of the association and also the association in special cases received a price much above that received for the bulk of the crop, but when averages were com-

pared the association members were much above the independent shipper. One thing that is not taken into consideration by the independent shipper is the fact that when an organization establishes a reputation and price for the product of a particular locality, the growers who are not in the association are likewise benefitted. Associations with a standard grade and pack advertise the entire locality and independent shippers get the benefit of this. Shipments of large organizations are not confined to local markets, but the more distinct ones are exploited also. This, in a measure, leaves the near-by markets open to the independent shipper. For this reason it has been very hard to induce a number of persons to join associations. They are willing to receive all the benefits, but they do not care to take any risks nor to pay any part of the expenses.

A contract should be signed by each member. In no other way can the manager tell what he will have to handle. The contract should contain an estimate of what each member will have for sale, and if he sells outside after contracting to sell through the association he should be fined at least the cost of selling, or what the association has been out on his account. Selling outside not only competes with the association, but if the members do not live up to their contracts the manager has no assurance that he will have any definite quantity to sell. The California courts have held that such contracts cannot be enforced. Even if they cannot be enforced legally the moral effect will be worth much.

If a member is offered more outside than the association is getting he should turn the order over to the association to be filled

out of his fruit. In this way one can get the benefit of any exceptional price for his own particular product and still support the organization.

#### By-Laws.

A number of by-laws of successful organizations are given in the appendix. The by-laws should be adapted to the need of the particular association. They should provide penalties for non-support, who shall be members, voting power, amount of capitalization, and for a board of directors composed of growers. The board of directors should be composed of the strongest men of the community, regardless of personal opinions. With a strong board and manager, and the manager supported by the board and loyal members, an association should succeed in most any place and under any circumstances.

#### Financing.

Many farmers' organizations have failed because of insufficient capital to properly conduct the business. In the past farmers, as a class, have rather shrunk from borrowing. Many times they were thought by others to be inefficient if operating on borrowed capital.

With the advent of large and expensive machinery more capital has been required and farming is being reduced to a business basis. Farmers are operating on borrowed money where they see that they can return the money and make a profit on its use above the interest charged.

In most cases in the past it has not been possible to borrow on fruit as collateral; however, the large associations are now arranging with the banks to accept this as security and advance money to the growers before the crop is sold. Before cooperation in selling was

practiced this was not possible. Recently western associations have been particularly successful in negotiating loans of this character.

Even if no money is advanced before the crop is sold a certain amount of capital is necessary to conduct the business. Not only must there be money for permanent investments, as buildings, equipment, etc. but also for operating expenses. If an association purchases supplies in quantity it should have sufficient cash available to follow the lead of the most successful merchants and take advantage of all cash discounts. Some of the most common methods of raising funds are discussed below.

#### Sale of Stock or Shares.

The cash savings of the members may be utilized by the purchase of stock or shares. This is the method most commonly used to raise the money to launch an organization and to often finance the first permanent improvements.

The earnings of a stock company are returned to the investors as dividends. If stock is open and any one can invest as heavily as desired there is danger of the control passing into the hands of persons who are more concerned with large dividends than with fair returns on products sold.

Where shares are sold, perhaps a small dividend is declared on the stock and the rest of the earnings prorated back to the members in proportion to the amount of business each has done through the organization, the plan being to secure a good price for the products shipped and not to pay large dividends on stock. The price of shares should be large enough to make the member treat it as a serious business

transaction, but not so large as to bar the small shipper.

One disadvantage of this method of financing for operating expenses, or any temporary want, is that the money is idle for a portion of the time, and therefore a larger margin of profit must be made to pay for the interest than if the money was borrowed only for the length of time needed.

#### Mortgage.

Where a large amount of money is needed for permanent improvements, such as a storage plant or warehouse, often the association's realty is mortgaged or bonds are floated. The latter is a favorite method for taking care of long time loans.

#### Notes of Members.

This method of financing is especially used in purchasing supplies, or other short term transactions, where the money is to be used a short time and then returned. Each member gives his note for a stated amount, say \$100., or so much per acre. When money is needed these notes are used as collateral at a local bank. This is proving a very good plan, as the joint credit of the members only is used. As the security is many times the amount borrowed a very low rate of interest is secured.

#### Assessments.

When an association is first organized the members are often assessed to provide funds for operating expenses until profits on the business are sufficient for this purpose. This is not a satisfactory method of raising money, except as a temporary expedient and is little

used in fruit growers' associations. A notable exception is the California Fruit Growers' Exchange. All of their operating expenses are met by assessments.

Deductions.

Practically all organizations expect to pay their expenses by deducting a percentage, or fixed charge, on the selling price per package. This is the most popular and perhaps most equitable of any plan for meeting operating expenses and providing for a sinking fund. Many organizations place a certain per cent of the profits in a sinking fund and prorate the remainder among the members in proportion to the amount of business done for them through the association.

The question relative to financing was asked of the associations before mentioned. The replies indicate that the method used to finance the expenses of operation, was to deduct a certain commission on the products handled. In some cases this was a fixed charge per package and in others it was a per cent of the selling price. In one case the fruit was delivered to the packing house loose and the company charged a fixed amount for packing, package, etc., as follows:

Wrapped apples per box .....	35¢
Unwrapped apples per box .....	30¢
Plums and prunes per box .....	20¢

This included all expenses after the fruit was delivered at the warehouse. Over half of the stock of this association was owned by the manager. The par value of the stock was \$50. and he stated that he had a standing offer of \$65. per share for the rest, so it appears that it was a profitable business for the manager.

If there is a surplus after all the expenses are met and a stated dividend, in the case of stock companies, paid, the rest is prorated to the members; in the stock companies, usually, to the stockholders as an extra dividend; in other cases, to the growers in proportion to the amount of business done through the organization. Some associations are creating a surplus, or sinking fund; others are not, but depend on an assessment or loan from their bank for any unusual expenses. An excerpt from one of the replies is quoted below:

"We beg to add that we charge the growers 5 per cent commission on all sales which we make for them, and on consigned goods we have the commission houses charge the grower 8 per cent, out of which they remit to the General Office 3 per cent from time to time, as called upon by the Secretary-Treasurer. At the end of each season, whatever profits accrue after the payment of all expenses and a ten per cent dividend, we add one-half to the surplus and the other half is paid back to the shippers, in proportion to the amount of f. o. b. sales. From this source, we refunded to the shippers in 1914, \$46,612.58."

Usually provision is made for a working capital by means of a sinking fund provided by a pro rata deduction from each package of fruit handled by the association.

The plan that the writer was most favorably impressed with is employed by one of the large sub-centrals in the Northwest. Five

cents is deducted for each box of apples, four cents for pears, two and one-half cents per crate for prunes and one and one-half cents per crate on peaches.

These deductions are made annually and are considered as a loan from the member to his association to provide funds to properly finance and carry on the business of the organization, other than operating expenses.

Each member is given a promisory note from the association for the amount deducted. These notes are in force for three years and bear 4 per cent interest. They are dated either January, April, July or October, first succeeding the date of settlement. The notes are of even denominations of five, ten, twenty, fifty and one hundred dollars each. They are negotiable and have interest coupons attached. As these deductions are made annually after the first cycle of three years has passed, there will remain in the treasury fund the accumulation of three years' deductions. The fourth year's deductions liquidate the first year's liabilities, and so on. Each member finances his own business under this plan, while no one finances the others. Each member contributes to the association exactly in the proportion he uses it, whether it is one box or a car load. Large and small are treated alike. The members thus financing their own business on the basis of exact equality and fairness should be reasonably free of outward influences, or unwarranted exactions of money lenders. As each member has contributed small amounts to the fund and all hold claims against it, due on specific dates, this should insure a conservatism. The

relation of the association management towards this fund is not unlike that of a bank towards its depositors.

(?) The knowledge that this money will be called for at the expiration of its respective three year periods no doubt makes the management equally as conservative as would be a bank of the funds of it's depositors. This fund, after all, is a liability on the part of the association and serves to add stability, strength and conservation to the plan. This alone is sufficient answer to the argument that there might be an unwise or extravagant use of such funds. As each member has an equity in the fund he takes a personal interest in the conservation of it and this would serve to stop a demand for injudicious or unwise appropriation.

One of the chief objections urged against a sinking fund, as accumulated in the usual way, is that there is generally no provision made for the withdrawal of the amount contributed by a member when he severs his connection with the association. Again, it has frequently happened, under many plans, that just as the fund had grown large enough to be of some benefit towards building warehouses, etc., there arises a demand from dissatisfied members, or among members who had withdrawn, to "cut the melon" and distribute the funds.

The distribution, under the above plan, is automatically provided for. The amount contributed by each member is returned to him with a moderate rate of interest annually, and at the same time it is replaced each season from amounts taken in from new members or shipping relations. A person may increase or decrease his acreage. This also

automatically adjusts itself to these conditions, since a person withdraws through his three years' notes, each year's contribution to the association, and, if he desires, he may trade, discount, or make any other disposition of these notes just as he would any other business paper. The fund will adjust itself to changing conditions of production. It will be larger in a year of heavy, and smaller in a year of light production. There is always three years' accumulation in the fund, which should carry the association over any off years, or non-productive season. Money derived from this fund is not used to defray operating expenses, but it is only used in purchasing supplies or in some matter where the amount will be automatically returned to the treasurer, so that it will take care of the notes as they mature.

In addition to this there is deducted a charge for actual operating expenses. This varies, with different local organizations, from one and one-half to ten cents per box for apples, and other fruits, in proportion. The average is about five cents a box.

#### Sales Method.

There are four common methods of selling. 1st. Cash f. o. b., or track sales. 2nd. Shipping to city buyer at agreed price subject to his acceptance after inspection. 3rd. Consignment. 4th. Auction.

From the grower's standpoint the first method is the most satisfactory. He not only knows what he will receive, but has the money before the car is shipped. The buyer takes all risks after acceptance.

Where fruit is well packed and graded and sale made to an honest dealer the second method is not bad; yet, if a delay occurs in transit and the fruit arrives in bad condition the shipper is obliged to

stand the loss. Also should the market change while the shipment is enroute it would give a dishonest dealer an opportunity to find some fault with the shipment and reject it or hold out for a lower price.

The consignment method places the shipper entirely at the dealer's mercy. This is the plan followed largely in unorganized sections, but is rapidly being displaced by more business-like methods in the better organized districts.

The auction market is used largely by California shippers and by other growers of tropical and semi-tropical fruits, but it has not met with much favor with shippers of other fruits. Theoretically, it should reach the largest number of buyers and realize the best price. It means a sure sale at some price. The auction markets are trying hard to get the Northwest box apple growers to market in this way, but with little success. In a few cases it has been tried, but with poor returns, the shippers claiming the auction was controlled by commission men. The auction people say it was only used when the fruit could not be disposed of by any other manner and did not give the auction market a fair trial.

There are twelve auction markets in the United States, located in the following cities: New York City, Chicago, Philadelphia, Boston, St. Louis, Pittsburg, Cleveland, Cincinnati, New Orleans, Buffalo, Detroit, and Kansas City.

These markets are in charge of private operators, companies, or corporations that charge a commission for their services. As this commission is based on the selling price it would seem to be to the

advantage of the auction to get as high a price as possible.

The auction management has no place to store and care for fruit, so that shippers who are not large enough to have their own agent to look after their interests must ship through some dealer that has facilities for handling the shipment.

The auction issues a catalogue daily describing in detail each consignment and all sales are made by samples selected at random from the shipment.

From the replies to the question as to the best method of selling it appears that the sales method which seems to be most popular is the cash f. o. b.

Best Sale Method Reported.

Table No.24.

Traveling salesmen .....	4%
Brokers .....	6%
Cash f.o.b. ....	40%
Letter, wire, etc. ....	4%
City agents .....	15%
Direct to retailer .....	4%
Weekly credit .....	6%
California Fruit Exchange .....	2%
North Pacific Fruit Distributors .....	13%
Ozark Fruit Growers Association .....	6%
Consigned to commission merchants .....	-

Percentage of associations preferring f.o.b. settlement	80%
Percentage of associations preferring credit settlement	20%

Average amount sold f.o.b. ....	83%
Highest amount sold f.o.b. ....	100%
Smallest amount sold f.o.b. ....	5%
Percentage selling over 90 percent .....	63%
Percentage selling 25 percent or less .....	4%

Average amount consigned .....	18%
Highest amount consigned .....	80%
Lowest amount consigned .....	1%
Percentage consigning 75 percent or more .....	7%
Percentage consigning 15 percent or less .....	60%

Forty per cent prefer this method and the next most popular method is through city agents, 15 per cent preferring this. Thirteen per cent were shipping through the North Pacific Fruit Distributors and a number of other methods were preferred by a few individuals, as will be seen by referring to the above mentioned table. While some fruit was consigned to commission merchants, in no case was it stated that this method was preferred, or were the best returns secured from it. A number said that it was only used as a last resort, or to dispose of fruit that was not up to the standard of the association.

Regardless of the method of selling, 80 per cent of the associations preferred the cash f.o.b. method of settlement and only one-fifth had better results where they granted credits. Where the consignment method was used, less than one-fifth of the output on the average was marketed in this manner. In one place as high as 80 per cent was consigned. This was a berry association. The lowest amount consigned was 1 per cent and, of the associations consigning, 60 per cent consigned 10 per cent, or less. So it would seem that the consignment method is rapidly being replaced by more business-like sales methods.

Many reported that they had never heard of the auction market, and other, that it was only used as a last resort.

That the f.o.b. method is gaining rapidly in some of the most successful associations is shown by the following example:

In 1905 the Ozark Fruit Growers' Association consigned a little over 57 per cent of their strawberries. In 1913 they consigned only

7 per cent.

The Treasurer's report for the East Shore of Virginia Produce Exchange for 1914 shows:

Gross sales on produce f.o.b. ....	\$5,244,425.74
Gross sales on produce consigned .....	508,264.62

Less than 10 per cent was consigned according to the above figures.

The North Pacific Fruit Distributors the first year they were in operation sold 83 per cent of their products f.o.b. According to the Treasurer's report for 1914 this had increased to 97 per cent in 1914.

A report of the Georgia Fruit Exchange shows the following:

Amount of fruit sold f.o.b. 1913 .....	61%
Amount of fruit sold f.o.b. 1914 .....	48%
Amount of fruit sold f.o.b. 1915 .....	34%
Amount of fruit sold f.o.b. 1916 .....	67%

Of the total amount of fruit shipped from the state of Georgia in 1916 only 30 per cent was f.o.b. sales. This shows that the Exchange sold more than twice as much of their fruit for cash before shipment as the growers of the state as a whole.

#### Advertising.

In the last twelve years the population of the United States has increased 21 per cent and the consumption of California oranges has increased 74 per cent, due largely to methods of advertising. The California Fruit Exchange charges one and one-half cents per box on all fruit handled by them and spends something like \$275,000. annually on advertising.

One of the most striking results obtained by proper advertising is exhibited by the California Associated Raisin Company, as was discussed in connection with the history of this organization.

The question of advertising was asked of more than three hundred reputable associations and only about half of them stated that they were advertising. With the exception of the large citrus and raisin associations of California and the North Pacific Fruit Distributor of Spokane, Washington, very little money is spent, even by those who are advertising.

The California Fruit Growers' Exchange is one of the largest advertisers in the country and their advertisements of the Sunkist oranges are seen everywhere. One method they have found very successful is to offer silverware as premiums for wrappers from this brand of fruit.

The North Pacific Fruit Distributors this year (1915) collected one cent per box for advertising on apples handled by them. No definite information was obtained as to the amount thus collected, or the manner in which it was spent.

The value of advertising does not as yet appear to be realized by the majority of organizations.

#### LEGISLATION.

Little legislation in the interest of the fruit grower has been enacted. This point was discussed briefly under the heading of "discrimination" is a comparison to show how other industries are protected at the expense of the farmers. Not only in the matter of a tariff, but in regulating the conduct of the commission merchant does the producer

need to be considered. Some states have taken steps to control or eliminate the dishonest commission man. Minnesota and New York, perhaps, lead in this reform and New York requires the registration of all commission men and the giving of a bond of \$3,000. to insure fair dealings.

Much constructive legislation needs to be enacted before the fruit growers will be adequately protected by law.

#### Corporation Laws.

As a general rule any farmers' organization is called cooperative regardless of whether it is a stock company or a cooperative association. As a matter of fact, in only a few states do the laws permit strictly cooperative associations to be incorporated. The best laws studied of this kind were those of California, Oregon, Nebraska, Kansas, Wisconsin and Washington.

The corporation laws of Missouri do not allow a strictly cooperative association to be formed, for in a cooperative organization the amount of stock one person may own is limited. Also the number of votes a member may cast is limited, while with the usual stock company each share of stock carries a vote.

Chapter 33, Article 1, Section 2973 of the Revised Statutes of Missouri says, in part:

"In all elections for directors or managers of any company, each shareholder shall have the right to cast as many votes in the aggregate as shall equal the number of shares so held by him or her in said company - - and each shareholder may cast the whole number of votes either in person, or by proxy".

There is a law in Missouri allowing benevolent, religious, scientific, educational and miscellaneous associations to organize without a capital stock, but it specifies:

Chapter 33, Article 10, Section 3439 of the Revised Statutes of Missouri:

"No association, society or company formed for manufacturing, agricultural or business purposes of any kind -- or for pecuniary profit in any form, nor any corporation having a capital stock divided into shares, shall be incorporated under this act."

The following is offered, not with the expectation that it will meet all the requirements of cooperative law, but with the hope that it may supply a working plan so that a bill may be drafted that will meet the needs of the farmers of Missouri.

#### Cooperative Associations.

##### Section 1. Cooperative Associations Authorized:

It shall be lawful for five or more persons to form a cooperative association for transacting any lawful business. For the purposes of this act, the words "Association", "Company", "Exchange", "Society" or "Union" shall be construed the same.

##### Section 2. Articles, Contents:

Each association formed under this act shall prepare articles of association, which shall set forth:

1. The name of the association.
2. The purpose for which it was formed.
3. Its principal place of business.
4. The term for which it is to exist, which shall not exceed 50 years.
5. The number of directors and the names and residences of those selected for the first year.

Section 3. By-Laws of Association:

Each association may prepare by-laws for its own government, providing therein the terms and limitations of stock ownership and the distribution of its earnings, not otherwise provided for in this act.

Section 4. Fees:

The fees for incorporating cooperative associations shall be the same amounts as those provided for like capitalization of general corporations for the state of Missouri.

Section 5. Trustees, Election, Duties; Election of Officers:

Each association shall be managed by a board of not less than three directors. The directors shall be elected by and from the stockholders at such time and for such term of office as the by-laws may prescribe, and shall hold office during the term for which they were elected and until their successors are elected and qualified; but a majority of the stockholders shall have the power at any regular or special meeting, legally called for that purpose, to remove any director or officer, for cause, and fill the vacancy. If any director or officer shall fail to attend three regular meetings in succession without excuse, his office shall automatically be declared vacant. The officers of every such association shall be a president, one or more vice presidents, a secretary and treasurer, who shall be elected annually by the directors; provided the office of secretary and treasurer may be filled by the same person. Each of said officers must be a member of the association. All elections shall be made by ballot.

Section 6. Amendments - How adopted. Recordings:

The articles of the association may be amended by a majority

vote of the stockholders at any regular stockholders' meeting, or at any special stockholders' meeting called for that purpose, or written notice given the stockholders as specified in the by-laws. Said power to amend shall include the power to increase or diminish the capital stock and the number of shares, provided the amount of capital stock shall not be diminished below the amount of paid-up capital stock at the time such amendment is adopted.

Section 7. Business Authorized to be Conducted:

The words "lawful business" shall extend to every kind of lawful effort for business; agricultural, dairy, mercantile, mining, manufacturing, or mechanical business conducted on the cooperative plan.

Section 8. Stock; Issue; Vote:

No stockholder in any such association shall own more than one-fifth of the stock of the association, except as hereinafter provided. Each stockholder shall be entitled to one vote for each share of stock owned, provided no person shall be entitled to more than ten votes in the aggregate regardless of the amount of stock owned.

Section 9. Subscription of Stock in Other Associations:

At any regular meeting, or any regularly called special meeting, at which at least a majority of all the stockholders shall be present, or represented, an association organized under this act may by majority vote of the stockholders present or represented, subscribe for shares and invest its reserve funds, or any part thereof, in the capital stock of any other cooperative association.

Section 10. Purchasing Business of Other Associations; Payment; Stock Issued:

Whenever an association organized under this act shall purchase any stock of another association, or the interest, or any part thereof, of any person, or persons, firm or partnership engaged in any lawful business, as defined in Section 9 of this Act, it may pay for the same in whole or in part by issuing to the selling association, or person, firm, or partnership, shares of its capital stock to an amount which at par value would equal the fair market value of the stock, or interest so purchased and in such case the transfer to the association of such stock or interest so purchased at such valuation shall be equivalent to payment in cash for the shares of stock so issued.

Section 11. Certificates of Stock; When Held in Trust; Issued:

In case the cash value of such stock or interest so purchased exceeds one-fifth of the par value of the purchasing association, the trustees of the purchasing association are authorized to hold the shares in excess of one-fifth of the par value of the purchasing association in trust for the vendor and dispose of the same to such person, or persons, and within such time as may be mutually agreed upon by the parties in interest, and shall pay the proceeds thereof as currently received to the former owners thereof. Certificates of stock shall not be issued to any subscriber until fully paid for, but the by-laws of the association may allow subscribers to stock to vote as stockholders, provided that one-fifth of the stock subscribed for has been paid for by such subscriber.

Section 12. Stockholders May Vote by Mail:

At any regular, called, general or special meeting of the

stockholders, a written vote received by mail from any stockholder, and signed by him may be read in such meeting and shall be equivalent to a vote of each of the stockholders so signing, provided he has been previously notified in writing of the exact motion or resolution upon which such vote is taken and a copy of same is forwarded with, and attached to, the vote so mailed by him.

Section 13. Earnings; Apportionment:

The trustees shall apportion the net earnings by first paying dividends on the paid-up capital stock at a rate not exceeding 8 per cent per annum; then setting aside not less than ten per cent nor more than twenty-five per cent of the remainder annually of the net profits for a reserve fund, unless the by-laws have otherwise provided for the accumulation of a reserve fund, and the remainder of said net profits by dividends proportioned upon the amount of business transacted with said association and proportioned upon the wages and salaries of employees, provided that non-shareholders shall only be entitled to one-half as much dividends from said net profits as shareholders. And provided further, that no dividend shall be paid out, or declared, or any business transaction with the association by any person, persons, firm, or corporation engaged in the buying, selling or handling of agricultural products for profit, or to any sale to said association by any person, or persons, firm or corporation engaged as a wholesaler, or jobber, in the distribution of manufactured products. Dividends remaining uncalled for for six months after the same have been declared shall revert to the association.

Section 14. Distribution of Dividends:

The profits or net earnings of such association shall be dis-

tributed to those entitled thereto at such time and in such manner not inconsistent with this act as its by-laws shall prescribe, which shall be as often as once a year.

Section 15. Annual Reports; Contents; Filing:

Every association organized under the terms of this act shall, annually, on or before the first day of March of each year, make a report to the Secretary of State; such reports shall contain the name of the company, its principal place of business in this state and a general statement as to its business, showing the total amount of business transacted, the amount of capital stock subscribed for and paid in, the number of stockholders, the total expenses of operation, the amount of its indebtedness or liability, and its profits and losses.

Section 16. Associations Heretofore Organized -  
May Adopt Provisions of This Act:

Associations heretofore organized and doing business under prior statutes, or which have attempted to so organize and do business, shall have the benefit of all the provisions of this act and be bound thereby on filing with the Secretary of State, signed and sworn to by the President and Secretary, Manager or other officer managing said business, to the effect that the said cooperative company, or association, has by a majority vote of its stockholders decided to accept the benefits of and to be bound by the provisions of this act. No association organized under this act shall be required to do or perform anything not specifically required herein in order to become an association, or to continue its business at such.

Section 17. Use of term "Co-operative" Limited to Associations  
Under this Act:

No corporation or association organized or doing business for

profit in this state shall be entitled to use the term "co-operative" as a part of its corporate or other business name or title, unless it has complied with the provisions of this act; and any corporation, or association, violating the provisions of this section may be enjoined from doing business under such name at the instance of any stockholder or any association legally organized hereunder.

Section 18. When to do Business - Liability:

No cooperative association organized under the provisions of this act shall be permitted to do business until three-fourths of the capital stock shall have been subscribed for and one-fourth of the capital stock of said association shall have been paid into said association. The liability of each stockholder shall be limited to the amount remaining unpaid on his subscription to the capital stock of said association.

Section 19. Constitutionality:

If any section or part of a section of this act shall for any cause be held unconstitutional such fact shall not affect the remainder of this act.

Section 20. Alteration; Repeal; Amendment:

The right is reserved to alter, amend or repeal this act at any legislative session.

Standard Package:

While there has been a little done in the matter of legislation regarding standard packages, much remains to be done, and especially should this be done by the federal government. A number of states have adopted standard packages for their own state, but there is a sad lack of uniformity.

In the East apples are shipped in barrels, and a standard barrel had been defined, and an attempt was made at the time to define the capacity of a legal box, but it was defeated by the Western growers. Not that they objected to a standard box, but they objected to the box as specified in the bill. It was not the one in common use in the West, and to which the packs were adapted. The West wants a standard box, but they want to say what that standard shall be, as they know their requirements better than do Eastern men.

A number of Western states have made the box in common use, commonly known as the "Oregon Standard", the legal box for their states and the various fruit growers' organizations in the Northwest are fathering a bill to make this a national standard box. The dimensions of this box are 10 1/2 X 11 1/2 X 18, having a capacity without distension of 2173 1/2 cubic inches.

More states have defined a legal berry container than any other package, but there is a wide variation in these also. The legal requirements of a number of states, as well as the common package in use, will be found in the appendix.

#### Conclusions and Summary.

The history of the most successful organizations studied show that they arose out of some of the following necessities:

The first California association was organized to protect the shippers against the transportation companies, and later to minimize competition among themselves.

The Northwest associations were organized to lessen competition

among themselves, which was threatening to destroy the industry.

The East Shore of Virginia Produce Exchange was organized to protect the growers against unfair dealings and to better distribute the crop.

The central and southern associations were organized to protect themselves against unfair dealers and to eliminate local competition.

The Canadian associations were organized to protect themselves against competition, both local and from the United States, and to secure government aid in enlarging their capital.

The associations that have the support of the largest per cent of their growers are the most successful.

Some of the requisites for a successful organization are:

1. There must be an absolute need for an organization and the growers must feel this need and want to organize.

2. It must be properly organized and have a good manager that understands the particular business.

3. And, lastly, the members must be loyal and support the organization.

The associations organized in districts depending on some special crop that has to be marketed at a considerable distance from the place of production are the most successful. After marketing the special product they handle everything produced, but they were organized primarily for some special crop, or crops.

There is no particular type of organization that will suit all

conditions. While fruit growers' associations are usually termed cooperative, over half of the ones studied were stock companies. The majority of stock, in most cases, however, was held by actual fruit growers. The capital stock varied from \$2,000. to \$250,000.

More seems to depend on the management and loyalty of the members than the type of organization.

Over three-fourths of the fruit growers' selling organizations studied employ a manager who is a fruit grower and financially interested in the organization. Only the largest organizations employ business men exclusively for their managers.

On the other hand, only the smallest organizations have managers with no business training. The preference is for a man with a business training, who at the time is growing fruit.

Practically all fruit marketing organizations seem to think their manager should have a knowledge of fruit growing. Only the largest ones think this knowledge not necessary.

Over half of the reports were that they preferred a local man. While the weight of numbers supported this view, the opinion of the largest and most successful organizations was that it either made no difference or that better results were obtained with a stranger. Almost a fourth had the latter view.

Practically all of the managers worked on a flat salary, only the small organizations, or the ones depending on one product, as berries, compensated their manager with a commission on the amount of business he did.

The most successful organizations are the ones that handle as large an assortment of products as possible.

On the average, the organizations are handling about three-fourths of the products raised in the localities. And the prices are above that realized by the independent shipper and appear to be equally beneficial to the small and large producer.

The best method of sale is the cash f.o.b. Consigning to commission men is rapidly losing ground and is used only to dispose of poor quality of fruit. In no case were the best returns received from it. In the Northwest many of the small organizations are shipping through the Central Selling Exchange, instead of competing each with the other.

Production is increasing most rapidly in districts that are the best organized, as California and the Northwest.

There is no over production, but there is a change in the production areas. Also much more tropical and sub-tropical fruit is being consumed in the deciduous, or temperate zone, than formerly. This competes with deciduous fruits and has the same effect as an increased production.

With the exception of the largest exchanges in the Western States, practically no advertising has been done.

Missouri's corporation laws do not permit the organization of cooperative marketing associations.

.....

#### ACKNOWLEDGMENTS.

The writer wishes to express his appreciation to Professor William H. Lawrence, Department of Horticulture, University of Missouri, for directing the study, and for his many helpful criticisms, for, through his efforts this work has been made possible.

Acknowledgment is also made to Dr. J. C. Whitten, Department of Horticulture, and to Professor S. D. Gromer, Department of Economics, for their suggestions; also to Mr. M. E. Hays, Extension Entomologist, Texas Agricultural and Mechanical College, for suggestions as to arrangement of subject matter.

.....

## APPENDIX.

Fruit selling organizations in order to be the most successful should be properly incorporated with a carefully prepared constitution and by-laws. However, many states do not have laws permitting the incorporation of strictly cooperative associations. The corporation laws of a few states that do permit the incorporation of cooperative associations, as well as the constitution and by-laws of some of the most successful associations are included in the appendix.

Much agitation has been aroused concerning uniform grading and packing. Some associations have very stringent rules, and a number of states have passed laws governing this subject, but, with the exception of the National Apple Barrel Law, little national legislation has been enacted. It is necessary for a successful fruit selling organization to be familiar with the laws governing packages, packing and grading in the states in which it seeks to do business; therefore a digest of the laws of the states which have passed such legislation has been included in the appendix.

### Corporation Laws Co-Operative.

#### Wisconsin Law Governing Co-Operative Association:

"Chapter 368, Laws of 1911. AN ACT to create sections 1786e-1 to 1786e-17, inclusive, of the statutes, relating to the incorporation of co-operative associations, and the fees to be paid therefor.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

Co-operative associations; who may organize; purposes. Section 1786e-1. (Ch. 368, 1911.) Any number of persons, not less than five, may associate themselves as a co-operative association, society, company, or exchange, for the purpose of conducting any agricultural, dairy, mercantile, mining, manufacturing or mechanical business on the co-operative plan. For the purposes of this act, the words "association," "company," "corporation," "exchange," "society" or "union," shall be construed to mean the same.

Articles: contents. Section 1786e-2. (Ch. 368, 1911.) They shall sign and acknowledge written articles which shall contain the name of said association and the names and residences of the persons forming the same. Such articles shall also contain a statement of the purposes of the association and shall designate the city, town or village where its principal place of business shall be located. Said articles shall also state the amount of capital stock, the number of shares and the par value of each.

Articles: verification; filing; Charter. Section 1786e-3. (Ch. 368, 1911.) The original articles of incorporation organized under this act or a true copy thereof, verified as such by the affidavits of two of the signers thereof, shall be filed with the secretary of state. A like verified copy of such articles and certificates of the secretary of state, showing the date when such articles were filed with and accepted by the secretary of state, within thirty days of such filing and acceptance, shall be filed with and recorded by the register of deeds of the county in which the principal place of business of the corporation is to be located, and no corporation shall, until such articles be left for record, have legal existence. The register of deeds shall forthwith transmit to the secretary of state a certificate stating the time when such copy was recorded. Upon receipt of such certificate the secretary of state shall issue a certificate of incorporation.

Filing fee. Section 1786e-4. (Ch. 368, 1911.) For filing of articles of incorporation of corporations organized under this act, there shall be paid the secretary of state ten dollars and for the filing of an amendment of such articles, five dollars. For recording copy of such articles the register of deeds shall receive a fee of twenty-five cents to be paid by the person presenting such papers for record. When stock is less than \$500, fee is \$1.00.

Directors: election; duties; election of officers. Section 1786e-5. (Ch. 368, 1911.) Every such association shall be managed by a board of not less than five directors. The directors shall be elected by and from the stockholders of the association at such time and for such term

of office as the by-laws may prescribe, and shall hold office for time for which elected and until their successors are elected and shall enter upon the discharge of their duties; but a majority of the stockholders shall have the power at any regular or special stockholders' meeting, legally called, to remove any director or officer for cause, and fill the vacancy, and thereupon the director, or officer so removed shall cease to be a director or officer of said association. The officers of every such association shall be a president, one or more vice-presidents, a secretary and a treasurer, who shall be elected annually by the directors, and each of said officers must be a director of the association. The office of secretary and treasurer may be combined, and when so combined the person filling the office shall be secretary-treasurer.

Amendments: how adopted; recording. Section 1786e-6. (Ch. 368, 1911.) The association may amend its articles of incorporation by a majority vote of its stockholders at any regular stockholders' meeting, or at any special stockholders' meeting called for that purpose, on ten days' notice to the stockholders. Said power to amend shall include the power to increase or diminish the amount of capital stock and the number of shares. Provided, the amount of the capital stock shall not be diminished below the amount of paid-up capital at time amendment is adopted. Within thirty days after the adoption of an amendment to its articles of incorporation, an association shall cause a copy of such amendment adopted to be recorded in the office of the secretary of state and of the register of deeds of the county where the principal place of business is located.

Business authorized to be conducted. Section 1786e-7. (Ch. 368, 1911.) An association created under this act shall have the power to conduct any agricultural, dairy, mercantile, mining, manufacturing or mechanical business, on the co-operative plan and may buy, sell and deal in the products of any other co-operative company heretofore organized or hereafter organized under the provisions of this act.

Stocks: issue; limit; vote. Section 1786e-8. (Ch. 368, 1911.) No stock holder in any such association shall own shares of a greater aggregate par value than one thousand dollars except as hereinafter provided, or be entitled to more than one vote.

Subscriptions of stock in other associations. Section 1786e-9. (Ch. 368, 1911.) At any regular meeting, or any regularly called special meeting at which at least a majority of all its stockholders shall be present, or represented, an association organized under this act may, by a majority vote of the stockholders present or represented, subscribe for shares and invest its reserve fund, or not to exceed twenty-five per cent of its capital, in the capital stock of any other co-operative association.

Purchasing business of other associations: payment; stock issue. Section 1786e-10. (Ch. 368, 1911.) Whenever an association, created

under this act, shall purchase the business of another association, person or persons, it may pay for the same in whole or in part by issuing to the selling association or person shares of its capital stock to an amount, which at par value would equal the fair market value of the business so purchased, and in such case the transfer to the association of such business at such valuation shall be equivalent to payment in cash for the shares of stock so issued.

Certificates of stock: when held in trust; issue. Section 1786e-11. (Ch. 368, 1911.) In case the cash value of such purchased business exceeds one thousand dollars, the directors of the association are authorized to hold the shares in excess of one thousand dollars in trust for the vendor and dispose of the same to such persons, and within such times as may be mutually satisfactory to the parties in interest, and to pay the proceeds thereof as currently received to the former owner of said business. Certificates of stock shall not be issued to any subscriber until fully paid, but the by-laws of the association may allow subscribers to vote as stockholders; provided, part of the stock subscribed for has been paid in cash.

Stockholders may vote by mail. Section 1786e-12. (Ch. 368, 1911.) At any regularly called general or special meeting of the stockholders a written vote received by mail from any absent stockholder and signed by him may be read in such meeting and shall be equivalent to a vote of each of the stockholders so signing; provided, he has been previously notified in writing of the exact motion or resolution upon which such vote is taken and a copy of same is forwarded with and attached to the vote so mailed by him.

Earnings: apportionment. Section 1786e-13. (Ch. 368, 1911.) The directors, subject to revisions by the association at any general or special meeting, shall apportion the earnings by first paying dividends on the paid-up capital stock not exceeding six per cent per annum, then setting aside not less than ten per cent of the net profits for a reserve fund until an amount has accumulated in said reserve fund equal to thirty per cent of the paid-up capital stock, and five per cent thereof for an educational fund to be used in teaching co-operation, and the remainder of said net profits by uniform dividend upon the amount of purchases of shareholders and upon the wages and salaries of employees, and one-half of such uniform dividend to nonshareholders on the amount of their purchases, which may be credited to the account of such nonshareholders on account of capital stock of the association; but in productive associations such as creameries, canneries, elevators, factories, and the like, dividends shall be on raw material delivered instead of on goods purchased. In case the association is both a selling and a productive concern, the dividends may be on both raw material delivered and on goods purchased by patrons.

Distribution of dividends. Section 1786e-14. (Ch. 368, 1911.) The profits or net earnings of such association shall be distributed to those entitled thereto, at such times as the by-laws shall prescribe, which shall be as often as once in twelve months. If such association

for five consecutive years shall fail to declare a dividend upon the shares of its paid-up capital, five or more stockholders, by petition, setting forth such fact, may apply to the circuit court of the county, wherein is situated its principal place of business in this state, for its dissolution. If, upon hearing, the allegations of the petition are found to be true, the court may adjudge a dissolution of the association.

Annual report: contents; filing. Section 1786e-15. (Ch. 368, 1911.) Every association organized under the terms of this act shall annually, on or before the first day of March of each year, make a report to the secretary of state; such report shall contain the name of the company, its principal place of business in this state, and generally a statement as to its business, showing total amount of business transacted, amount of capital stock subscribed for and paid in, number of stockholders, total expenses of operation, amount of indebtedness or liabilities, and its profits and losses.

Co-operative associations heretofore organized: may adopt provisions of this act. Section 1786e-16. (Ch. 368, 1911.) All co-operative corporations, companies, or associations heretofore organized and doing business under prior statutes, or which have attempted to so organize and do business, shall have the benefit of all the provisions of this act, and be bound thereby on filing with the secretary of state a written declaration signed and sworn to by the president and secretary to the effect that said co-operative company or association has by a majority vote of its stockholders decided to accept the benefits of and to be bound by the provisions of this act. No association organized under this act shall be required to do or perform anything not specifically required herein, in order to become a corporation or to continue its business as such.

Use of term "co-operative" limited to corporations under this act. Section 1786e-17. (Ch. 368, 1911.) No corporation or association hereafter organized or doing business for profit in this state shall be entitled to use the term "co-operative" as a part of its corporate or other business name or title, unless it has complied with the provisions of this act; and any corporation or association violating the provisions of this section may be enjoined from doing business under such name at the instance of any stockholder or any association legally organized hereunder.

Section 2. This act shall take effect and be in force from and after its passage and publication."

#### Kansas Co-operative Law.

"Co-operative Associations. Any number of persons, not less than twenty who are citizens of the state of Kansas, may associate

themselves together as a co-operative corporation for the purpose of conducting any agricultural, dairy mercantile, mining, manufacturing, or mechanical business on the co-operative plan. The title of such corporation shall begin with "The" and end with "Association," "Company," "Corporation," "Exchange," "Society," or "Union." For the purpose of this act the "Co-operative Plan" shall be construed to mean a business concern that distributes the net profits of its business by: First, the payment of a fixed dividend upon its stock; second, the remainder of its profits are prorated to its several stockholders upon their purchases from or sales to said concern or both such purchases and sales. They shall sign and acknowledge written articles of incorporation which shall contain: The name of the corporation; the names and residence of the persons forming the same; the purpose of the organization; the principal place of business; the amount of capital stock; the number of shares and the par value of each share; the number of directors and the names of those selected for the first term; the time for which the corporation is to continue, not to exceed fifty years. The original articles of incorporation or a certified copy of the same shall be filed with the secretary of state who shall return to the corporation a certified copy of the same, with the date of filing and attested with the seal of his office, upon the approval of the Charter Board. For filing the articles of incorporation and amendments thereto under this act the same fees shall be paid to the secretary of state as is now required under the general corporation law. No corporation organized under the provisions of this act shall commence business until at least twenty per cent of its capital stock has been paid for in actual cash, and a sworn statement to that effect has been filed with the secretary of state, and his receipt for the same shall be construed as a permit to do business. Every such association shall be managed by a board of not less than five directors. The directors shall be elected by and from the stockholders of the association at such times and for such term of office as the by-laws may prescribe, and shall hold office for time for which elected and until their successors are elected and shall enter upon the discharge of their duties; but a majority of the stockholders shall have the power at any regular or special stockholders' meeting legally called, to remove any director or official for cause, and fill the vacancy, and thereupon the directors so removed shall cease to be a director of said association. The officers of every association shall be: a president, one or more vice-presidents, a secretary, and a treasurer, who shall be elected annually by the directors, and each of said officers must be a director of the association. The office of secretary and treasurer may be combined; the person filling the office shall be secretary-treasurer. No person shall be allowed to own or have any interest in more than ten per cent of the capital stock of such corporation. Each member shall be entitled to one vote for each director to be elected. Each corporation shall formulate by-laws prescribing the duties of the directors and officials; the manner of distributing the profits of its business; the manner of becoming a member; and such other rules and instructions to its officials and members as will tend to make the corporation an effective business organization. Each corporation organized under the

provisions of this act shall make an annual report to the secretary of state the same as is required of other corporations; provided, such co-operative corporation shall be required to report the names of its stockholders and the amount of stock owned by each for such years only as may be required by the secretary of state. All co-operative corporations, companies, or associations heretofore organized and doing business under prior statutes, or which have attempted to so organize and do business, shall have the benefit of all of the provisions of this act, and be bound thereby on paying the fees provided for in this act and filing with the secretary of state a written declaration signed and sworn to by the president and secretary to the effect that said co-operative company or association has by a majority vote of its stockholders decided to accept the benefits of and be bound by the provisions of this act. No association organized under this act shall be required to do or perform anything not specifically required herein in order to become a corporation, or to continue its business as such. No corporation, association or company now or hereafter organized or doing business for profit in this state shall be entitled to use the title "Co-Operative" as a part of its corporate or other business name or titles, unless it has complied with the provisions of this act; and any corporation, association or company violating the provisions of this section may be enjoined from doing business under such name at the instance of any stockholder of any association legally organized hereunder."

Articles of Incorporation and Constitution and By-Laws.

Articles of Incorporation of the Fruit Growers' Agency, Inc.

"We, the undersigned fruit growers and sales agents, realizing the advantages to be gained by co-operation among the fruit growers and their resident agents in the States of Washington, Oregon, Idaho and Montana, for the purpose of forming a corporation to supervise the uniform contract with the growers and growers' agents deem both desirable and necessary, and for generally promoting the fruit industry in the Pacific Northwest, hereby make and subscribe, and do hereby adopt the following articles of incorporation, to-wit:

Article.1. -- Name.

The name of this corporation under which it shall do business shall be "The Fruit Growers' Agency, Incorporated."

Article II. -- Purposes.

This exchange is organized for the purposes of supervising the performance of a uniform contract which exists between the growers and their

respective sales agencies, for the selling of the fruit products of the Pacific Northwest; to provide the means and facilities for carrying out the provisions contained in this contract as hereinafter set forth; to establish and maintain an "exchange" for the promotion of business and social relations among its members, and especially the advancement of the mutual interests of the fruit growers and fruit shippers of the Pacific Northwest by all proper and legitimate methods; to collect and disseminate information; to secure improvements in transportation and storage service and conditions; to encourage competition by honorable methods only; to adjust by fair and equitable means grievances and differences; to correct trade evils and abuses; to prohibit all customs not in accordance with the sound business principles; to secure the unification of contracts and accounting methods; to secure uniform methods in the physical handling, grading and packing of fruit from tree to car; to provide the necessary facilities for the extension and development of domestic and Canadian markets; to provide the necessary facilities for the promotion and conduct of export shipments and sales and work through joint agents and consignees for this purpose; to underwrite steamship charters and develop new fruit trade routes; to co-operate with federal agencies in such lines of work as they may undertake in behalf of the fruit industry; and to form and carry out plans for the mutual protection and benefit of its members in the harvesting, marketing and distribution of the Pacific Northwest fruit and produce crops.

To enable this corporation to carry out the purposes for which it is organized, it shall have the power:

1. To do all things necessary, proper and legal to carry out the purposes of its organization as above stated.
2. To buy, rent, lease, acquire and own such property, real or personal, as may be necessary for carrying on the business of the corporation and to sell, lease, mortgage, release and handle the same.
3. To aid in any manner any corporation or association organized for like purposes as this one, and to do any acts and things necessary for the success thereof and to assist it in carrying out the purpose of its organizations. To co-operate with and become a member of any State, Interstate or National organization organized for the same general purposes as this.
4. To borrow money and secure the payment of the same by bond, mortgage, note, hypothecation or pledge of any property and to issue such promissory notes, bonds, debentures or other evidences of indebtedness as may be deemed necessary by the Board of Trustees, to meet and discharge its obligations, to advance and promote the lawful purpose of its creation.
5. To make and enter into contracts with its members, other persons, associations or corporations, and to do any and all other acts and things necessary to carry out the purposes of its organization and which may be authorized by law, and to assist its members in every way practicable in the conduct of their business.
6. To sue and be sued.

#### Article 111.--Membership.

This organizations shall have no capital stock nor shall any shares therein be issued.

The corporation shall prescribe the qualification for any membership and the terms, conditions and character thereof, and fix the rights and privileges of the member. It may have a voting and a non-voting membership and fix the membership fee accordingly. The corporation shall issue membership certificates, which shall be assignable or transferable only under such rules and regulations as may be prescribed by the by-laws of the corporation.

No service shall be performed by this corporation for profit, nor shall any goods, wares or merchandise be handled or sold for profit. For all services rendered to its members they shall be charged therefor only such amounts as shall be necessary to pay the expenses of such service. This to include all necessary expenses incurred in handling the affairs of the corporation, including interest, fixed charges for salaries and such amounts as may be set aside to establish a surplus fund, if the members of the corporation shall deem it advisable to establish such a fund.

#### Article IV.--Place of Business

The principal place of business of this corporation and its home office shall be in the city of Spokane, County of Spokane, State of Washington.

#### Article V.--Terms of Existence

This corporation shall exist for a term of fifty (50) years.

#### Article VI.--Incorporation

The officers of the corporation shall be a president, a vice-president, a treasurer, an executive secretary and such other officers and agents as the Board of Trustees shall from time to time authorize. All notes, mortgages, bonds and other evidence of indebtedness shall be drawn in the name of the corporation, signed by the treasurer and countersigned by the president. The executive secretary, with the approval of the president, may bind the credit of the corporation in any sum not exceeding \$500.00. In order to bind the credit of the corporation for any sum in excess of \$500.00, a written resolution authorized by the Board of Trustees shall be necessary.

#### Article VII.--

The Board of Trustees shall be composed of not less than eleven voting members, five of whom shall be exclusive growers, five of whom shall be exclusive sales agents. The eleventh member of said board shall be elected from the active membership and may be either a grower or a sales agent.

Whenever it appears that the active voting members is a partnership, association or corporation, it shall, if a partnership, select one of its members, and if an association or a corporation, an officer, and shall certify his name, and upon such certification, the said members or officers shall be deemed eligible, for election to membership on the Board of Trustees."

---

Constitution And By-laws of the Hood River Apple Growers' Union.

Article 1.

"The name, place of business, capital stock and purposes of this corporation are set forth in the Articles of Incorporation, which are referred to as part of these By-laws.

Article 2.

"The membership of this corporation shall be confined to actual growers of fruit of Hood River Valley and vicinity.

Article 3.

"The Board of Directors shall consist of nine members, four of whom shall hold office for more than one year. They shall be elected annually and shall serve until their successors are elected and qualified. They shall qualify as directors within ten days after their election, and within ten days thereafter they shall elect from their number a President, Vice-President, and Secretary. They shall also choose a Treasurer, who shall be required to give bonds, with surety in such sum as they may deem ample. They may choose a bank as Treasurer without bonds. The annual meeting shall be held on the first Saturday in April in each year.

Article 4.

The Directors shall have the power to levy and collect assessments on the capital stock not to exceed fifty per centum of the stock subscribed at any one time, and not oftener than every sixty days; the same to become delinquent in thirty days from date of notice of such assessment in the local newspaper. The Directors shall sell shares of stock to actual fruit growers only.

#### Article 5.

The Directors shall employ such agents or other employees as are necessary to do the business of the corporation, and shall fix their remuneration; provided that the Board of Directors shall receive no salary for acting as Directors. They shall have daily account sales rendered to the members of the Union each day, as received by them or their agent, giving a statement by whom sold, gross sales, commission, freight or express, and amount due members of the Union; also giving condition of fruit, if there be any complaint.

#### Article 6.

The Directors may refuse to receive for shipment, under the brand of the Union, any package of fruit not considered prime from any cause. They shall refuse to receive for shipment fruit from any person not holding stock.

#### Article 7.

This organization through its Board of Directors shall have the exclusive and unqualified power to market all apples grown by any of its members. A contract between each member and the Board will be required.

#### Article 8.

The duties of the Secretary shall be to keep a record of the proceedings of the meetings of the stockholders and directors. He shall keep the corporate seal of the association and shall be the custodian of all deeds, articles of agreement and other valuable instruments of writing belonging to the association. He shall keep all books of the insurance and transfer of stock and shall countersign all certificates of stock and affix the seal of the Board of Directors and stockholders, and shall keep or cause to be kept, all books of account necessary to the

transaction of the general business of the association. The Manager of the Union shall be placed on a flat salary.

Article 9.

The Board of Directors shall provide the necessary means for carrying out the purposes for which the association is formed, by reasonable charges and commissions for the service rendered by the association to its members and customers.

Article 10.

The duties of the Treasurer shall be to receive all moneys due or paid to the association and deposit the same as the Directors may instruct; to pay out said funds upon the written order or check of the President, first Vice-President, or General Manager, when countersigned by the Secretary.

Article 11.

All notes or other evidence of indebtedness of the association shall be signed by the President and countersigned by the Secretary of the Board of Directors.

Article 12.

The President shall instruct the Secretary to call a meeting of the stockholders whenever in his judgment the necessities of the Union require it, by giving one week's notice through the local newspaper and send each a notice on a postal card.

Article 13.

No Union label shall be placed on a box of fruit except by the Manager of the warehouse just before shipping.

Article 14.

Each packer will be held responsible for his own work by a system of fines. No fruit will be received unless put up by a packer employed by the Union.

Article 15.

The Union will have no packing house foremen, except those employed by the Union.

Article 16.

A majority of the stock subscribed, upon which all legal calls or assessments have been paid in full, shall constitute a quorum at any stockholders' meeting, and no vote shall be counted which is not represented by one share of the stock upon which all calls or assessments have been paid.

Article 17.

These by-laws may be amended by vote of the majority of the stock upon which all calls or assessments have been paid, at any regular or called meeting, provided that notice to amend the by-laws shall have been given in the call for a special meeting.

Article 18.

Any member desiring to dissolve his connection with this corporation may do so by surrendering his stock to the secretary thereof or by transferring it to any member in good standing on the secretary's books.

## Rules and Regulations

### Northwest Grading Rules for the Season of 1915.

"First grade," "Grade No. 1," or "Extra fancy," are defined as sound, smooth, mature, clean, hand-picked, well-formed apples only, free from all insect pests, diseases, blemishes, bruises and other physical injuries, scald, scab, scale, dry or bitter rot, worms, worm stings, worm holes, spray burn, limb rub, visible water core, skin puncture or skin broken at stem.

The following varieties shall be admitted to this grade, subject to the color requirements specified:

**Solid Red Varieties** - Aiken Red, Arkansas Black, Baldwin, Black Ben Davis, Gano, King David, McIntosh, Spitzenburg (Esopus) Vanderpool, Winesap, must have not less than three-fourths good red color; Jonathan must have not less than two-thirds good red color; Black Twig, Missouri must have not less than 50 per cent good red color.

**Striped or Partial Red Variety** - Delicious, Stayman Winesap must have not less than two-thirds good red color; Ben Davis, Hubbardston, Jeniton, Kaighn Spitzenburg, Northern Spy, Wealthy, Rome Beauty, Rainer, Snow, Wagener, York Imperial must have not less than 50 per cent good red color; Gravenstein, Jefferis, Tompkin's King must have not less than one-fourth good red color.

**Red Cheeked or Blushed Varieties** - Hydes' King, Maiden Blush, Red Cheeked Pippin, Winter Banana must have a perceptible blushed cheek.

**Yellow or Green Varieties** - Grimes, Yellow Newtown, White Pearmain, Cox Orange must have the characteristic color of the variety;

Ortley must be white, yellow or waxen.

"Second grade," "Grade No. 2," "Fancy apples are defined as apples, complying with the standard of first grade apples, except that slight leaf rub, scratches or russeting shall be permitted up to a total of one inch in diameter in counts running 125 or less to the box, or three-fourths of an inch in diameter in counts running from 138 to 163 to the box, and one-half inch in diameter in counts running 175 or more to the box; and limb rubs will be permitted showing an aggregate area in the various counts one-half of that allowed for leaf rubs, providing that no apple shall show total blemishes aggregating more than one inch in diameter in counts running 125 to the box or less; more than three-fourths inch in diameter in counts running 138 to 163 to the box, and one-half inch in diameter in counts running 175 to the box or more. No clearly misshapen or bruised apple, or apples bearing evidence of rough handling shall be permitted in this grade.

The following varieties shall be admitted to this grade, subject to the color requirements specified;

Solid Red Varieties - Aiken Red, Arkansas Black, Baldwin, Black Ben Davis, Gano, King David, McIntosh, Spitzenburg (Esopus) Vanderpool, Winesap must have not less 40 per cent good red color; Jonathan must have not less than one-third good red color; Black Twig, Missouri must not have less than 25 per cent good red color.

Striped or Partial Red Varieties - Delicious, Stayman Winesap must have not less than one-third good red color; Ben Davis, Hubbardston, Jeniton, Kaign Spitzenburg, Northern Spy, Rainier, Snow, Wagener, Wealthy, York Imperial must have not less than 10 per cent good red color; Gravenstein, Jeffrey, Tompkin's King must have not less than 10 per cent good red color; Rome Beauty: no specific color requirement is defined for Rome Beauty in

this grade other than that each specimen must show a perceptible blush or overspread of reddish color characteristic of the variety, except that Rome Beauty apples of 96 size and larger shall be admitted without color.

Red Cheeked or Blushed Varieties - Must have correct physical quality with tinge of color.

Yellow or Green Varieties - Must be of the characteristic color.

"Third grade," "Grade No 3," or "C" grade apples shall consist of mature apples free from all insect pests, worms, worm holes, infectious diseases, skin punctures, bruises or broken skin, but slightly misshapen apples, or those having sun scald, not to exceed two healed over stings, and the blemishes allowed for second grade apples shall be permitted, and there shall be no requirement as to color.

Combination Extra Fancy and Fancy Grade - When first and second grade apples are packed together the packages must be marked "Combination Extra Fancy and Fancy."

Combination grade may also include all other apple varieties not provided for in first and second grades.

When second and third grade apples are packed together, the packages must be marked "third grade."

When first, second and third grade apples are packed together, the packages must be marked "Orchard Run," but orchard run packages must not contain any apples that would not meet the requirements of third grade.

Summer and Early Fall Varieties - Summer varieties such as Astrachan, Bailey Sweet, Bietigheimer, Early Harvest, Red June, Strawberry, Twenty Ounce Pippin, Yellow Transparent, Oldenburg and kindred varieties not otherwise specified in these grading rules, together with early fall varieties, such as Alexander, Blue Pearmain, Wolf River, Spokane Beauty

Fall Pippin, Waxen, Tolman Sweet, Sweet Bough and other varieties not provided for in these grading rules, as grown in sections of early maturity, shall be packed in accordance with the grading rules covering fancy grade, as to defects, but regardless of color rules.

All apples packed otherwise than according to the foregoing grading rules shall be accompanied by printed description of the contents on each package.

### Peaches

Peaches should be picked for packing only when fully developed, but firm or hard ripe. Yellow meated varieties should show some yellow color. The fruit should be picked and laid, not dropped, in the baskets or pails, and should be taken from the vessel only at packing table. All possible care should be used to avoid bruises.

Use standard peach boxes; cleats on top only; use 4d special orange box cement nails for bottoms and sides. Drive nails one inch from corner, four nails to each piece. Use three 4d cement box nails for each cleat, one in the center, and one driven two inches from the end of the cleat. The cover should hold the fruit firmly in the box, but should not bulge more than three-eighths of an inch. Use 4-1/2-inch boxes only for Elberta peaches, running 50 to 84, both inclusive, avoiding the use of extra cleats, except in extreme cases. Peaches that are too large to be laid five wide in the box should be packed two and three in 4 $\frac{1}{2}$ -inch boxes. If the peaches are roundish, as in the case of Crawfords, it will be necessary to use some 4-inch boxes with this pack.

Peaches that will go five across the box or smaller should be packed three and three in 4-inch boxes. The excellence of the pack depends upon uniform grading. The peaches in a box should not vary more than one-

eighth of an inch in diameter. All peaches must be carefully wrapped in suitable paper.

Peaches that run less than 96 to the box must not be packed for shipment. Eighty-four count must be the minimum for Elbertas. In packing the box should set on an incline with the lower end of the box to the packer. Both tiers should be carried forward together. The peaches should be placed in the box stem end down, those in the top tier resting in the spaces between those in the lower tier so that no peach will rest squarely on top of another.

Pack all peaches with the loose end of the wrapper down. No over-ripe, under-sized, immature, bruised, misshapen, diseased, wormy or otherwise defective fruit should be packed.

The variety, numerical count and grower's name to be placed on the label end of box with rubber stamps.

#### Prunes and Plums

Pick as large a percentage as possible with stems on.

Throw out all stemless fruit when skins are broken or torn.

Pickers should be very careful in picking not to brush off the bloom.

Gloves should never be used in handling prunes and plums. Prunes and plums should be hard ripe for picking. Fruit should contain some sugar and be matured enough so it will continue ripening and have a good flavor.

Fruit should be free from all insect pests, scale, scab, blemishes and physical injuries.

Prunes and plums and all such fruit should be packed in 4-basket prune crates, unless ordered otherwise. Fruit too small to pack 6x6 top should never be packed in prune crates and should only be shipped in 3½-inch peach boxes.

Whenever possible use a square pack.

Pack all Tragedies and Italians three tier deep, two layer stem end down; bottom layers to be packed and not jumbled; pack top tier with creased side up and all the same way. Hungarians, Bradshaws, Peach plums and similar varieties that pack smaller than 5x5 in prune crates should not be packed.

### Pears

There shall be three grades of pears, "Extra fancy," "Fancy" and "C" grade.

Extra Fancy - This grade shall consist of pears that are hand-picked, clean, sound and free from insect pests, sun scald, scab, scale or other diseases, worm holes, stings, limb rub, misshapen, broken, skin or stemless, bruised or evidence of frost by russetting, rough handling or serious defects, excepting a small amount of russetting, not clearly noticeable or covering a total area to exceed one-half inch square, may be admitted, no one spot to exceed one-fourth inch area.

No pears smaller in size than 175 to the box shall be permitted in this grade. Packed boxes should weigh not less than 50 pounds gross, except Winter Nellis, which shall weigh at least 47 pounds gross.

Fancy - This grade shall consist of all fruit which does not meet with the requirements of the extra fancy grade, as to blemishes, deformities and sizes, but which in every way is sound and marketable and shows no disease, skin puncture, stemless or defect that would injure the keeping qualities.

Slightly misshapen fruit may be admitted in this grade.

Pears will be accepted in this grade as small as 200 to the box.

C Grade - This grade shall consist of all fruit which does not meet with the requirements of the extra fancy and fancy grades as to blemishes

and deformities, but which in every way is sound and marketable and free from disease. Smaller pears than 200 count to the box will be admitted in this grade.

In the case of Winter Nellis and Bosc varieties same grading will apply except that the natural russetting is desirable and required.

Winter Nellis to be accepted 200 count to the box in extra fancy and 300 to the box in fancy grades.

Every box of pears shall have clearly stamped upon it the number of fruit contained in the box. All pears to be wrapped.

#### Cherries

Ten-pound Boxes - All marketable varieties must be in perfect condition, of the right degree of ripeness, free from all insect pests and blemishes. Stemless cherries to be kept out.

In packing the ten-pound boxes, care must be taken by the packer to have the cherries as near uniform in size as possible all the way through the box.

Boxes should be marked according to the number of rows across the end, as in 9 row, 10 row and 11 row.

In making the box top should be nailed on and cleated, bottom left off, box should be placed before packer, with open bottom up.

Carefully pack the bottom tier, which will be the top when pack is completed.

In packing the first tier, care should be taken by the packer to place the rounding side of the cherry next to the board.

Use only the square pack, never a broken one. Both ends of box should be packed alike. Allow no stems to stick out of the corners which will be the top of the box to the packer. See that the corners are well filled.

After the box is nailed up there should be no stems showing. Edges of box where cherries are exposed should present a neat appearance.

Nailers should be very careful when lidding up not to cut or mash any of the fruit; all such cherries should be removed and replaced with good fruit.

Twenty-pound or Twenty-five-pound Boxes - Follow same instructions when packing either 20-pound or 25-pound boxes.

Lug Boxes - We also recommend the use of a lug-box with a center partition for cherries to be shipped to market, not extending over 200 miles from point of shipment. These cherries are placed loose in the box, with no facing.

The dimensions of box are as follows: Sides, 18x5-3/4 inches; ends, 14x5-3/4 inches; tops and bottoms, 18x7 inches. The box to contain thirty pounds net weight of cherries.

Strawberry Crates - It is recommended that for all cherries that are packed in strawberry crates, use the pint hallock packed twenty-four to the crate.

Where strawberry crates of twenty-four hallock carriers are used for packing cherries, hallocks should be well filled, shaken down and topped or faced so they will be rounding full. There should be no stems showing. Use square pack.

### Berries

Of all Northern fruit, berries are the most delicate and highly perishable. Don't try to market them fresh unless you have concluded to exercise extreme care in every detail in preparing the fruit for market.

For strawberries use deep standard pint cups, twenty-four in a crate. Use only dry crates and cups. For other berries use shallow standard

pint cups, twenty-four in a crate where possible. Deep pints will answer, but there is more danger of loss from bad condition on arrival, if deep cups are used.

As the fruit is packed to eat the appearance of the package is important. Keep your crates clean and bright. When handling the crate after being filled, set them down gently; don't drop them, and don't allow your help to drop them.

After packing deliver berries promptly on wagons with easy springs.

Get the fruit under refrigeration at the earliest possible moment after picking.

Pre-cool the cars as soon as possible after loading, if a pre-cooling planting is available, otherwise use from 50 to 100 pounds of stock salt on the ice in each end of the cars after loading. Leave the vents open for first 100 miles when possible. Don't cool berries in a refrigerator or cold storage room and then expose them to a warm temperature even for a short time, as the berries will "sweat" and mold. When you do cool them off keep the temperature uniform. It is best to cool them gradually in a cool natural temperature in pure air.

Pick often enough to prevent berries from getting over-ripe. Daily picking, in favorable ripening weather, is the only safe rule.

#### Strawberries

Extra Fancy - This grade shall consist of all perfect berries, Clark's Seedling variety, picked at the proper stage of ripeness for shipping. All berries must show at least three-fourths red. Nothing smaller than  $5\frac{1}{2} \times 5\frac{1}{2}$  (meaning berries not less than  $\frac{3}{4}$  of an inch in diameter) and no stemless berries in this grade. Pack each cup firmly,

without bruising the fruit so that there will be no settling of the berries. Face the top of the box with berries 16 (4x4) or 20 (4x5) or 25 (5x5).

Fill the cups so that the top layer will show three-eighths of an inch above the top of the cup.

Picking- Berries must not be picked while there is moisture on the vines. Berries must be picked riper in cool weather than in warm. Pickers must not be allowed to hold several berries in the hand at the same time. Pick all berries with stems a quarter of an inch long. Berries pulled off the stem decay very quickly. Do not pick green berries; this is reckless waste. Do not step or kneel on the vines or green berries.

Packing - Study carefully specifications. Do not allow filled carriers to stand in the sun or wind; the wind is more damaging than the sun. The strawberry is probably our most delicate, most perishable fruit, and must be handled with the best of care from the time of picking until it reaches the consumer.

Face each box with berries as uniform in size as possible. See that not more than 15 per cent of the berries under the facing are not smaller than the facing or in any way inferior.

Berries brought in from the field by the picker must be emptied out by the packer on a sieve constructed of cloth to allow the sand and dust to fall away from them.

Hauling - Haul only on wagons with good springs and keep the fruit covered with canvas to keep out the dust.

Marking of Crates - The state law requires the grower's name and location where the berries are grown on each and every case of fruit placed on the market. In the upper left hand corner place the grower's

name and address, and in the upper right hand corner mark the words "Extra Fancy" on all berries of this grade.

Raspberries, Loganberries, Blackberries

Pick raspberries and loganberries when a light pink and firm.

Blackberries when dark red or black, but firm.

Berries that were overlooked on previous picking which are over-ripe must be put in a separate box and must be used for local consumption or canning or drying.

Don't re-handle raspberries, loganberries or blackberries to sort them, as they are too delicate. The grading must be done by the pickers.

The berries are sure to settle unless the cups are properly filled. See that the berries are settled, the corners of the cups are rounded up about five-eighths of an inch above the top before putting the cups into the crate.

Have your crate made five-eighths of an inch higher than the top of the upper layer of cups. If the top of the crate is too low, put a cleat under the cover. Don't mash the berries when putting the cover on. Mashing the tops of berries starts mold and seriously injures the appearance and quality of the berries when they reach the market.

If you do not have enough product to load cars daily, try and arrange with a neighboring district to join in loading cars.

If on account of bad weather or a shortage of help you are unable to pick your berries at the proper time. make the next picking clean and turn that picking into the cannery or dryer. This will give you a clean start for picking for shipment.

A few over-ripe berries will start mold and ruin a whole box or an entire crate.

The range of markets extends to Vancouver, B. C.; Winnipeg, Duluth, Minneapolis, Chicago, Omaha and Kansas City, and the fruit must be packed and loaded so it will reach these markets in good condition.

By complying with these instructions a standard will be established whereby buyers can safely order cars of berries from us at an f. o. b. price which will otherwise be impossible.

All kinds of picnics or gatherings of people engaged in harvesting or picking berries during the harvesting season should be discouraged.

#### LAWS ON BERRY BOXES.

As published by the Packer,  
Kansas City Mo., March 15, 1915.

#### Arkansas.

" A box 9x12x20 inches shall constitute a lawful bushel measure for apples.

#### California

The standard apples box is 20x11x10 inches, inside measurement. However, this standard has never been established by statute and at present no standard apple box has been provided by law in this state.

#### Delaware

The standard pint basket or cup for fruit and berries shall contain a full pint. The standard quart basket or cup for fruit and berries shall contain a full quart. The standard hamper shall contain a full bushel. The standard barrel for fruit and produce shall

contain eleven pecks. The standard peach basket shall hold 1/2 bushel. For the summer apple, the standard basket shall hold 7/8 bushel. In measuring all forms of fruit and produce, dry measure shall be used.

"Any one handling, shipping or selling fruit or produce in cups or baskets, hampers, barrels, peach baskets or summer apple baskets, shall use the standard cup or basket, peach basket, hamper, barrel or summer apple basket, or if he shall use a different size from that designated by law as standard for any of these fruits or produce, he shall clearly mark upon the outside of such receptacle in figures not less than one inch in height the exact amount which it holds.

#### Idaho

"A box or packet of apples shall contain 2150.42 cubic inches.

Berries and small fruits whenever sold in boxes shall be sold in boxes containing a standard dry quart, or dry pint, and if said boxes shall contain less than this amount, the information must be given to the purchaser or such package must be labeled with the statement of the net contents.

#### Indiana

"All commodities shall be sold by standard weight or measure, provided, however, that this provision shall not apply to commodities which are usually and customarily sold by numerical count or in gross or are sold in packages prepared and put up for sale and so marked as to indicate contents.

No tolerances.

"All sale of blueberries, blackberries, cranberries, currants, gooseberries, raspberries, cherries, strawberries and similar berries, also onion sets in packages of one peck or less may be sold by the quart, pint or half pint, dry measure. And all berry boxes sold, used or offered for sale in this state, shall be of an interior capacity of not less than one quart, pint or half pint, dry measure. Any berry box or measure not conforming to these requirements shall be confiscated by the inspector.

The above provisions became applicable October 1, 1913.

All dry commodities weighing ten ounces or more, except drugs, section comb honey and berries as last above stated, shall be bought or sold only by standard weight or numerical count, lineal measure or surface measure except where the parties otherwise agree in writing.

Under the rulings of the dairy and food commissioner, a standard apple box shall represent a quantity of 2073.5 cubic inches the same to  $10\frac{1}{2} \times 11\text{-}1/8 \times 18$  inches, and the standard grape basket to be recognized as such by the dairy and food commissioner shall be of a size or capacity to contain four, eight and twenty pounds. For the ready reference of the manufacturer and dealer, the sizes of the above named baskets are as follows:

Four pound grape basket,  $3\text{-}3/8$ " wide across bottom,  $9\text{-}5/8$  inches length of bottom,  $4\text{-}1/4$  inches deep, 5 inches wide across top and 11 inches length of top.

Eight pound grape basket,  $4\text{-}3/4$  inches wide across bottom,  $12\text{-}1/4$  inches length of bottom,  $5\text{-}1/8$  inches deep,  $6\text{-}1/2$  inches wide across top and  $14\text{-}1/8$  inches length of top.

Twenty pound grape baskets,  $7\text{-}1/8$  inches wide across

bottom, 15 inches length of bottom, 6-3/4 inches deep, 9-1/2 inches wide across top and 18 inches length of top.

The standard size for all boxes used in packing hops shall be 36x18x23 1/4 inches, inside measurement.

Kansas

"All dry commodities, not otherwise specified in this law, shall be sold only by standard dry measure, standard weight or numerical count except where parties otherwise agree.

Berries and small fruits when ever sold in boxes shall be sold in boxes containing a standard liquid quart or liquid pint, and if said box contains less than this amount the information must be given to the purchaser or said packages must be labeled with a statement with the net contents. The following errors or tolerances are allowable under the specifications issued by the state sealer of weights and measures:

	In excess,	In deficiency.
5 Bus . . . . .	25 cu. in.	17 cu. in.
4 Bus . . . . . .20	20 cu. in.	15 cu. in.
2 Bus . . . . . .18	18 cu. in.	10 cu. in.
1 Bus . . . . .	10 cu. in.	6 cu. in.
1/2 Bus . . . . .	8 cu. in.	4 cu. in.
1 Peck . . . . .	6 cu. in.	3 cu. in.
1/2 " . . . . .	5 cu. in.	3 cu. in.
1/4 " . . . . .	2 cu. in.	2 cu. in.
1 Qt. . . . .	2 cu. in.	1 cu. in.
1 Pint . . . . .	2 cu. in.	1 cu. in.
1/2 Pint . . . . .	1 cu. in.	1/2 cu. in.

Maine

"The standard bushel box for apples shall contain 2350 cubic inches, provided, however, that a box 18x11 1/2 x 10 1/2 inches inside measurement without distention of parts shall be a lawful box.

Maryland

"The standard of measure for buying and selling straw-

berries, raspberries, blackberries, currants, gooseberries, cranberries, whortleberries, cherries, plums, peanuts, kernels of other nuts, chinquapins, chestnuts, brussels sprouts and all other barrels, small fruits and vegetables shall be by dry measure.

The standard quart berry box or basket shall measure not less than 5-1/4 inches across the top, 4.216 inches across the bottom and 3 inches deep, inside measurement.

The standard apple box shall be 10 1/2 x 11 1/2 x 18 inches, inside measurement.

All standard barrels, baskets, boxes or packages used within this state, with the exception of the strawberry and other small berry, quart, pint or half pint baskets or boxes shall have plainly branded or marked thereon the name and address of its maker and the words "Maryland Standard Measure."

All produce offered for sale within this state in any barrel, basket, box or package of less capacity than the Maryland standard barrel, basket, box or package or multiples thereof, divisible by two, must have plainly marked or stamped thereon in three conspicuous and different places on each barrel, basket, box or package the following words, in letters one inch high, "Short Measure."

#### Massachusetts

\*Baskets and other receptacles holding one quart or less than which are used or intended to be used in the sale of strawberries, blackberries, cherries, currants, blueberries, raspberries, or gooseberries shall be of capacity of one quart, one pint or one half pint, standard dry measure, and it is made un-

lawful to sell or offer for sale a basket or other receptacle holding one quart or less to be used in the sale of any of the aforesaid fruits which does not conform to said standard.

All fruits, vegetables and nuts except as otherwise provided shall be sold at retail by dry measure, weight or numerical count.

The legal and standard crate for cranberries shall measure 7 $\frac{1}{2}$ "x12"x22", inside measurement, exclusive of any interior partition or support, and shall have an interior capacity of 1,980 cubic inches, but all square or oblong boxes or crates of different forms, but of as great interior capacity shall be considered a legal and standard crate.

Michigan

"A quantity known as a box or basket of peaches shall contain 716 4-5 cubic inches or 1-3 of a bushel strict measure.

All manufacturers of peach baskets and other fruit packages designed for the shipment of peaches, grapes, plums and all shippers and dealers in same shall mark or cause to be marked in a plain manner on the outside otherwise than the bottom of such baskets or packages the capacity of each basket or package in pounds at the rate of one pound for each 43.008 cubic inches of space contained in such basket or package.

The following capacities and tolerances have been adopted by the State Superintendent of Weights and Measures:

	Capacity in Tolerances in cubic inches.cubic inches.	
1 bu . . . . .	2150.42	25
$\frac{1}{2}$ bu . . . . .	1075.21	15
1 peck . . . . .	537.60	8

(Continued)

	Capacity in cubic inches	Tolerances in cubic inches
1/2 Peck . . . .	268.80	5
2 Qts. . . . .	134.40	2.5
1 Qt. . . . .	67.20	1.5
1 Pint . . . . .	33.6	1.0

A berry box is tested by taking a stricken quart, pint or half pint of beans and pouring them into the berry boxes which should then be stricken full. Any excess should be poured into a cubic inch graduate and the number of inches noted.

Berry boxes short of the legal requirements may be seized and turned over to the proper magistrate.

Berry boxes need not be stamped, marked or sealed.

Minnesota

"It shall be unlawful for any person to sell, offer for sale, or give away, any container for the distribution of berries or small fruit in less quantities than one bushel, unless said containers are of the capacity of one quart, one pint or one half pint, or multiples of a quart, standard dry measure, and all sales of blackberries, blueberries, currants, gooseberries, strawberries and similar berries and all plums, cherries and similar small fruits in less quantities than one bushel shall be by dry measure or in containers as above specified.

In no case said containers be refilled for use in the sale of berries or small fruits of any kind whatsoever.

No tolerances.

Montana

"The standard size of an apple box shall be of the following dimensions when measured without distention of parts, 10 $\frac{1}{2}$ "x12 $\frac{1}{2}$ "x18", inside measurement, and representing as nearly as possible 2,175 $\frac{1}{2}$  cubic inches.

Any box in which apples shall be packed and offered for sale that contains less than the required number of cubical inches shall be plainly marked on one side and one end with the words, "Short Box," or with the words or figures showing the practical relation which the actual capacity of the box bears to the capacity prescribed. The marking required shall be in black letters of the size of not less than 72 point block Gothic.

#### Nebraska

"All dry commodities not otherwise specified by law shall be sold only by standard dry measure, standard weight or numerical count except where the parties otherwise agree.

Berries and small fruits whenever sold in boxes shall be sold in boxes containing a standard dry quart or dry pint or such packages must be labeled with the statement of the net contents, provided, however, that this provision does not apply to produce sold of the season of the crop of 1913.

#### New Jersey

The standard measure for a bushel of cranberries shall be 32 quarts rounded measure and crates or boxes to be used for selling cranberries in this state or for transporting the same outside of this state shall be of the following size to-wit: 22"x12"x7½", inside measurement. The state superintendent of weights and measures shall fix tolerances or allowable deviation from the standards and he may change same from time to time, but in no case shall such allowable deviation be less than one half of one per cent.

Baskets for the sale of fruit or fruits, berries or vegetables in this state shall be of the capacities in standard dry measurements of thirty-two, twenty, sixteen, eight, four and two quarts, and for the sale of berries or small fruits shall be of the capacities in dry measurements of one quart and one pint.

New York

"All commodities must be sold by weight, measure or numerical count.

A peck, half peck, quarter peck, quart, pint and half pint for measuring commodities which are not liquids shall be derived from the half bushel by dividing that measure by two.

The standard measure for buying and selling strawberries, raspberries, blackberries, currants, cranberries, and other small fruits shall be the quart which shall contain when even full 67.2 cubic inches; the pint, which when even full, shall contain 33.6 cubic inches; the half pint, which when even full, shall contain 16.8 cubic inches. Multiples of the quart which when even full shall contain like multiples of 67.2 cubic inches.

Any person in this state who sells or offers for sale fruit packages that are of less than the standard sizes and capacity as defined above, or any person who sells or offers for sale, fruit in packages that are of less size or capacity than those defined above, shall be guilty of a misdemeanor and upon conviction thereof in any court of competent jurisdiction shall be fined not less than \$5.00 and not more than \$25.00 for each violation, and each sale shall constitute a separate violation, but variations of not more than 7 per cent (seven percentum) shall not be deemed a violation under this section. (Different tolerance is established by ordinance

in City of New York.

The standard four pound grape basket shall be of the following dimensions: The bottom shall be  $3\frac{5}{8}$ " in width; and  $9\frac{5}{8}$  inches in length; the height shall be  $4\frac{1}{4}$  inches; the outside of the top shall be 5 inches in width and 11 inches in length, requiring a cover  $5 \times 11$ ". The standard eight pound grape basket shall be of the following dimensions: The bottom shall be  $4\frac{3}{4}$ " in width and  $12\frac{1}{2}$  inches in length; the height shall be  $5\frac{1}{8}$  inches; the outside of the top shall be  $6\frac{1}{2}$  inches in width and  $14\frac{1}{2}$  inches in length, requiring a cover  $6\frac{1}{2} \times 14\frac{1}{2}$  inches. The standard twenty pound grape basket shall be of the following dimensions: The bottom shall be  $7\frac{1}{2}$ " in width and 15" in length; the height shall be  $6\frac{3}{4}$  inches; the outside of the top shall be  $9\frac{1}{2}$  inches in width and 18 inches in length, requiring a cover  $9\frac{1}{2}$  inches by 18 inches. Any container complying with such dimensions and capacity need not be marked, tagged, or otherwise branded to indicate the net quantity of the contents or to specify the same in terms of weight, measure or numerical count. No person shall manufacture, sell, offer or expose for sale, containers for grapes or other fruit in this state as the standard four pound grape basket or the standard eight pound grape basket, which are of less dimensions than those specified in this section unless the net quantity of the contents of each container or a statement that the specified weight includes the container, the weight of which shall be marked, shall be plainly and conspicuously marked, branded or otherwise indicated on the outside of such container in terms of weight, measure or numerical count. When commodities are sold or offered for sale in containers of other sizes than those specified above, or whose sizes are not otherwise provided by statute, the net

quantity of the contents of each container or a statement that the specified weight includes the container, the weight of which shall be marked, shall be plainly and conspicuously marked, branded or otherwise indicated on the outside or top thereof or on a label or a tag attached thereto in terms of weight, measure or numerical count, providing, however, that reasonable variations shall be permitted.

The term container as used in these laws shall include any carton, box, barrel, crate, half barrel, hamper, keg, drum, jug, jar, crock, bottle, bag, basket, pail, can wrapper, parcel or package. Under the regulations prepared by the superintendent of the weights and measures, according to authority vested by law, container other than barrels, or half barrels shall have the following dimensions; two bushels, one bushel, half bushel, one peck, half peck, quarter peck, one quart, one pint, and one half pint. Variations allowed on these are as follows:

	Variations above	Variations below
2 Bu. . . . .	114.6 cu. in.	57.3 cu. in.
1 Bu. . . . .	57.4 cu. in.	28.7 cu. in.
$\frac{1}{2}$ Bu. . . . .	28.6 cu. in.	14.3 cu. in.
1 Peck. . . . .	14.4 cu. in.	7.2 cu. in.
$\frac{1}{2}$ Peck. . . . .	10.8 cu. in.	5.4 cu. in.
$\frac{1}{4}$ Peck. . . . .	5.4 cu. in.	2.7 cu. in.
1 Qt. . . . .	2.6 cu. in.	1.3 cu. in.
1 Pt. . . . .	1.34 cu. in.	.67 cu. in.
$\frac{1}{2}$ Pt. . . . .	.68 cu. in.	.34 cu. in.

but in no case shall the variation be uniformly below in a test of twelve containers taken at random.

These tolerances or variations established as regulations by the superintendent of weights and measures seem to conflict with the variation of 7 per cent allowed under the law itself as above set forth.

Baskets or containers which are not of the standard size enumerated above, shall be marked in bold, broad-faced letters, at least one half inch in height, given in terms of dry quarts dry pints and half pints.

All markings of those other than standard size shall be upon the side or the top of the container and not upon the bottom.

#### Ohio

"In selling berris or other small fruits, whoever uses a measure other than the standard dry measure, half bushel or an aliquot part thereof, shall be fined not less than \$10 nor more than \$50.

The state sealer of weights and measures is given the authority to make and enforce regulations and has established the standard dimensions for quart berry boxes as 5.1x5.1 inches square at the top, 4.3x4.3 inches square at the bottom and 3 inches deep. Boxes of this dimension will hold a standard dry capacity quart. No tolerance.

#### Oregon

"A hop box shall be 36"x20"x18" inside measurement, and shall contain 19,440 cubic inches.

The standard size of an apple box shall be 18"x11 $\frac{1}{2}$ "x10 $\frac{1}{2}$ " inside measurement. The special size of an apple box shall be 20"x11"x10", inside measurement.

#### Pennsylvania

"If commodities named in the law which include fruit or small vegetables are sold in package form the quantity of the container shall be plainly and conspicuously marked on the outside.

of the package in terms of weight, measure or numerical count, provided, however, that reasonable variations shall be permitted and tolerances and also exemptions as to small packages shall be established by rules and regulations made by the Chief of the Pennsylvania Bureau of Standards.

Vermont

"Baskets or other receptacles in which berries are offered or exposed for sale must be of the capacity of one half pint, one pint, one quart or more than one quart, dry measure, and no person shall offer or expose for sale, baskets or receptacles to be used for the sale of berries which are not of the capacity of one half pint, one pint, one quart, or more than one quart, dry measure.

Washington

"The standard size of an apple box shall be  $18'' \times 11\frac{1}{2}'' \times 10\frac{1}{2}''$ , inside measurement. The standard size of a pear box shall be  $18'' \times 11\frac{1}{2}'' \times 8''$ , inside measurement.

All sale of blackberries, currants, strawberries, cranberries, raspberries, gooseberries, cherries, and similar berries in packages containing less than one bushel shall be sold by the dry quart, containing 67.2 cubic inches or the dry pint, containing 33.6 cubic inches, and any berry boxes sold, used or offered for sale within the state shall be of the interior capacity of 67.2 cubic inches, unless the same be labeled in plain English words or figures with its correct interior capacity expressed in cubic inches thereon.

Wisconsin

"A bushel, struck measure, shall contain 2150.42 cubic inches. The half bushel and the parts thereof shall correspond in capacity to that of the bushel and shall be the standard measure for fruits, vegetables and other dry commodities customarily sold by heap measure.

A bushel crate of cranberries or blueberries shall have an interior capacity of one bushel struck measure.

All sales of blackberries, blueberries, currants, gooseberries, strawberries, raspberries, cherries and similar berries in quantities of less than one bushel shall be by the quart, pint, or half pint dry measure, and all berry boxes or baskets sold, used, or offered for sale within the state shall be of the interior capacity of not less than one quart, pint, or half pint, dry measure.

The standard crate, box or basket for apples, pears, plums, peaches and other fruits, potatoes and other vegetables not secondarily contained in quart or other boxes shall have an interior capacity of not less than 2,352 cubic inches. This is a standard crate and is legally salable as such. It is not a bushel crate and is not legally salable as such. The capacity of the standard crate is equivalent to one third of the standard barrel of apples, pears, and other fruits, potatoes and other vegetables. A variation of  $\frac{1}{2}$  per cent above or below will be allowed, but the variations should not be uniformly below in a test of twelve crates.

The bushel crate for cranberries and blueberries shall hold 2,150.42 cubic inches, struck measure. A variation of  $\frac{1}{2}$  per cent below or above will be allowed, but in no case should the

variation be uniformly below in a test of twelve crates taken at random.

Standard containers, other than the standard barrel, crate or basket, have the following capacities; two bushels, one bushel, one half bushel, one peck, one half peck, one quarter peck, one quart, one pint and one half pint. Variations allowed on these are as follows, above and below:

2 Bushels . . . . .	100 cubic inches.
1 Bushel . . . . .	50 cubic inches.
$\frac{1}{2}$ Bushel . . . . .	30 cubic inches.
1 Peck . . . . .	16 cubic inches.
$\frac{1}{2}$ Peck . . . . .	10 cubic inches.
$\frac{1}{4}$ Peck . . . . .	5 cubic inches.
1 Qt. . . . .	3 cubic inches.
1 Pt. . . . .	2 cubic inches.
$\frac{1}{2}$ Pt. . . . .	1 cubic inch.
$\frac{1}{4}$ Pt. . . . .	.5 cubic inches.

In no case should the variations be uniformly below in a test of twelve containers taken at random. The variations above named for the quart and under shall be above only.



Blake, Morris, A.	Packing and Shipping Peaches in Georgia Carriers		
	N. J. Agr. Exp. Sta. Bult. No. 284		1915
Blakley, Henry	Questions of Storage and Markets		
	Better Fruit, Pg. 37	Oct.	1912
	Storage in Transit		
	Wash. State Hort. Society Report		1912
Branch, G. V.	Retail Public Markets		
	U. S. Dep't. of Agr. Year Book		1914
Brock, R. C.	The Science of Apple Packing		
	Better Fruit, Pg. 21	Mar.	1911
Carver, T. N.	Organization of Rural Interests		
	U. S. Dep't. of Agr. Year Book		1913
Castner, J. B.	The Importance of Properly Packed Apples		
	Better Fruit, Pg. 14	Mar.	1910
Chandler, W. H.	Cooperation Among Fruit Growers		
	Mo. Agr. Exp. Sta. Bult. 97		1911
Chandler, A. B.	Proper Packing of Apples, Peaches and Pears		
	Better Fruit, Pg. 48	Sept.	1910
Cole, C. A.	The Art of Careful Commercial Apple Packing		
	Better Fruit, Pg. 31	Mar.	1911
Collins, Chas. H.	A Better Apple Market		
	Better Fruit, Pg. 15	Sept.	1912
Coulson, E. W.	The Mutual Association		
	Better Fruit, Pg. 61	Feb.	1912
Coulter, John L.	Cooperation Among Farmers		
	Sturgis and Walton Company		1911

Corbett, L. C.	A Successful Method of Marketing Vegetables		
	U. S. Dep't. of Agr. Year Book		1913
Dyer, F. J.	Finding Markets		
	Better Fruit, Pg. 55	Mar.	1912
Elliot, Howard	Transportation and Storage		
	Better Fruit, Pg. 43	Sept.	1912
Elliot, H. M.	Successful Marketing		
	Ext. Service A and M College of Texas	May.	1915
Ellis, H. M.	Modern Methods of Marketing Fruit		
	Better Fruit, Pg. 65	June	1910
Eyerly, E. K.	Successful Cooperation Among Farmers		
	Journal of Political Economy	Feb.	1910
Fleming, I. M.	Producer's Marketing Agency		
	Better Fruit, Pg. 56	Mar.	1912
Fisher, J. W. Jr.	Outlook and Methods of Sale for Shippers of Fruit and Vegetables		
	U. S. Bureau of Markets Bult. 166		1915
Gardner, A. K.	The Cost of Producing Apples in Maine in 1914		
	U. S. Dep't. of Agr. Bul.V 14 No. 3		1915
✓ Gilbert, H. M.	Apples From Grower to Consumer		
	Better Fruit, Pg. 7	Sept.	1912
	American Fruits in Foreign Land		
	Better Fruit, Pg. 9	Feb.	1914
Hays, M. E.	Methods of Marketing Missouri Apples		
	Thesis		1915
Herrick, Myron, T.	Rural Credits		
	D. Appleton and Company		1914

Higgins, J. E.	Marketing Hawaii Fruits		
	Hawaii Agr. Exp. Sta. Bult. 14		1907
Howell, I. M.	Existing Corporation Laws of the State of Wash.		
	Sec'y. of State, Olympia, Wash.		1913
Hubbard, B. H.	Agricultural Cooperation		
	Wis. Agr. Exp. Sta. Bult. No. 283		1914
Hume, H. Harold,	Handling the Apple Crop		
	S. C. State Board of Hort. Bult. Vol.26, No.9		1915
Howard, W. L.	Grading and Packing Fruit		
	Mo. State Board of Hort. Bult. 47		1911
Judson, L. B.	Picking, Packing and Marketing the Apple		
	Better Fruit, Pg. 3	Mar.	1907
_____	Picking, Packing and Preparing Apples to Ship		
	Better Fruit, Pg. 15	Mar.	1910
_____	Picking, Packing and Marketing Apples		
	Idaho Agr. Exp. Sta. Bult. 54		1906
Kerr, W. H.	Cooperative Organization Business Methods		
	U. S. Bureau of Markets Bult. 178		1915
Lanham, W. B.	Harvesting and Marketing Peaches		
	Texas A and M College Ext. Bult. B 22		1916
✓ Lewis, C. I.	Handling the Pacific Northwest Fruit Crop		
	Better Fruit, Pg. 29	Feb.	1911
_____	The Physical Handling of Fruits		
	Ore. Ext. Service Bult. B 11, No.45		1916
✓ _____	The Apple From Orchard to Market		
	Ore. Exp. Sta. Bult. 94		1907

Lowther, Granville,	Picking, Packing and Marketing the Apple		
	Vol. 1, Cyclopedia of Practical Horticulture		1914
McNeil, A.	Modern Methods of Packing Apples and Pears		
	Canadian Dep't. of Agr. Bult. 34		1914
McPherson, Hector	Apple Market Investigations		
	Better fruit, Pg. 42	Feb.	1914
Meachem, L. B.	Cooperative Central Marketing Agency		
	Better Fruit, Pg. 65	Feb.	1911
Miller, Cyrus, C.	Mayor's Market Commission		
	Report, Mayor of N. Y. City		1913
Murphy, E. J.	Home Cold Storage Saves Rushing to Market		
	Better Fruit, Pg. 18,	Sept.	1913
Paddock, W.	Fruit Growers' Associations		
	Colo. Agr. Exp. Sta. Bult. 122		1907
Paulhamus, W. H.	Associations Important to Fruit Growers		
	Better Fruit, Pg. 3	Jan.	1907
Plunkett, Sir Horace,	The Rural Life Problems of the U.S.		
	The McMillan Company		1910
Powell, G. H.	Cooperation in the Handling and Marketing of fruit		
	Better Fruit, Pg. 53	June	1911
_____	Cooperation in the Handling and Marketing of fruit		
	Better Fruit, Pg. 87	July	1911
_____	Cooperation in the Handling and Marketing of fruit		
	U. S. Dep't. of Agr. Year Book		1910
_____	Cooperation in Agriculture		
	The McMillan Company		1913

Reid, J. Arthur	The Organization of a Fruit Distributing System		
	Utah Agr. Exp. Sta. Circ. 11	Feb.	1913
Ramsey, H. J.	Handling and Shipping Fruit in the Gulf States		
	Farmers Bult. 696		1915
Robbins, J. H.	The Yakima Valley Plan of Organization		
	Better Fruit, Pg. 35	Feb.	1911
Roberts, A. L.	The Picking, Packing and Marketing of Apples		
	Better Fruit, Pg. 35	Mar.	1911
Scott, Ben W.	Corporation Laws of Oregon		
	Sec'y. of State, Salem, Ore.		1912
Shepard, E. H.	Harvesting and Packing the Apple Crop		
	Better Fruit, Pg. 38	Mar.	1911
_____	North Pacific Fruit Distributors		
	Better Fruit, Pg. 36	July	1912
_____	Fruit Association Managers		
	Better Fruit, Pg. 9	Feb.	1907
_____	Benefits of Associations		
	Better Fruit, Pg. 15	July	1906
Sherman, Wells, A.	Peach Supply and Distribution		
	U. S. Bureau of Markets Bult. 284		1915
Stecham, H. O.	Central Selling Agency for Northwest		
	Better Fruit, Pg. 48	Sept.	1910
Stubenrauch, A.V.	The Handling of Deciduous Fruits on the Pacific Coast		
	U.S. Dep't of Agt. Year Book		1909

Stratford, Geo.	Apple Packing		
	New Zealand Dep't. of Agr. Bult. 15 N.S.		1912
Taylor, W. A.	Marketing, Storage and Transportation		
	Better Fruit, Pg. 15	Mar.	1912
Tuck, Isaac	Increased Consumption of Apples		
	Better Fruit, Pg. 38	Aug.	1912
Van Hise, Chas. B.	Waste in Distribution Too Large		
	Better Fruit, Pg. 12	June	1913
Watrous, W. T.	Apple Market Plan		
	Better Fruit, Pg. 14	Sept.	1912
Weber, R. A. H.	Picking, Packing and Marketing the Peach		
	Better Fruit, Pgp 5	Jan.	1907
Wilson, Chas. S.	New York Standard Apple Grading Law		
	Commissioner of Agr., Albany, N.Y. Cir. 118		
Wheeler, Wilford,	Apple Grading and Packing		
	Mass. State Board of Agr. Cir. 50		1916
Whistler, C. E.	Concerning Cooperative Fruit Organizations		
	Better Fruit, Pg. 68	Nov.	1911
	Proposed Law for Standard Apple Box		
	Better Fruit, Pg. 42	Dec.	1911
Williamson, H. N.	Apple Market and Danger of Overproduction		
	Better Fruit, Pg. 24	May	1910
Work, Paul	Marketing Horticultural Products		
	U. S. Dep't. of Agr. Bult. 292		1911
Wilkinson, A. E.	The Apple		
	Ginn and Company		1916

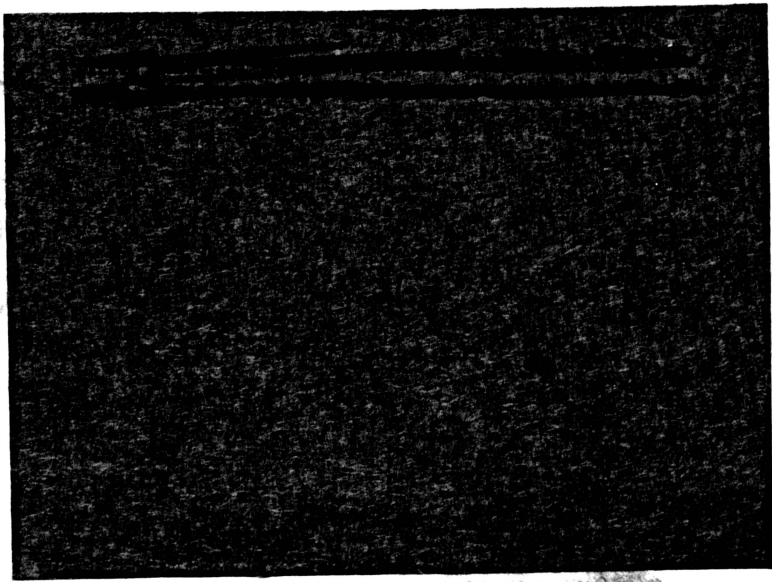


010-100903195

RECEIVED  
SEP 5 1917

UNIV. OF M.

378.7M71  
XL27



MU Libraries  
University of Missouri --Columbia

MU Theses and Dissertations (Pre-1920)

Local identifier Lanham1917

Capture information

Date captured	11292016
Scanner manufacturer	Zeutschel
Scanner model	OS 15000
Scanning system software	Omni scan v. 12.8 SR2 (2675)
Optical resolution	600 dpi
Color settings	grayscale, 8 bit and color, 24 bit
File types	tiff

Source information

Format	Book
Content type	Text [with images]
Source ID	010-100903195
Notes	Pages typed and single-sided. Title page has signature and perforated property stamp. Call number and date of 18 Sept. 1917 N.L. written on table of contents page. Some pages have handwritten marginalia and corrections. Inside front cover has two labels pasted in. Graphs are pasted in. Inside back cover has stamp, barcode, and call number. Pocket pasted in at end. Some page curvature due to tight binding. Purple ink property stamp on page 99

Derivatives - Access copy

Compression	Tiff compressed with LZW before conversion to pdf
Editing software	Adobe Photoshop CS5
Resolution	600 dpi
Color	Grayscale and color
File types	pdf
Notes	Grayscale pages cropped, canvassed, and images brightened. Color pages cropped. Blank pages removed.