THE POSSIBILITIES OF
FARM FORESTRY COOPERATIVES
IN THE WILLAMETTE VALLEY

by

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THE POSSIBILITIES OF FARM FORESTRY COOPERATIVES IN THE WILLAMETTE VALLEY

INTRODUCTION. With interest in forestry and conservation increasing throughout the United States during the last few years, there has developed concern for the proper management of farm woodlands.

"Farm woodlands include any forest land or potential forest land in farms or operated in connection with farms where the economy of the entire farm holding is based primarily on production of other than forest crops". (33)

To illustrate the importance of the problem, farm land in the United States may be divided into three classes; namely, crop lands, pasture lands, and woodlands. According to the 1935 census, crop lands consist of about 415,000,000 acres; pasture lands, nearly 410,000,000 acres; and woodlands, nearly 185,000,000 acres. Farm woodlands then make up about one-third of the forest land in the United States (34). In the Willamette Valley 58.8% of the farm land is classified as potential forest land (58).

That farmers in the past have not generally practiced the best woodland management and land use methods is well known. One of the chief reasons for this may be that they are unable to realize attractive profits from them. As in the case of other crops, producing and marketing are of prime importance if profits are to be realized from farm woodland products.
PURPOSE. During the past generation farmers throughout the United States have joined together to solve the producing and marketing problems of hundreds of agricultural crops, and of recent years foresters are studying the possibilities of cooperative action among farmers as a means of solving woodland management and marketing problems.

The purpose of this thesis is to present a study of cooperatives and thus to determine, as nearly as possible, the feasibility of establishing farm woodland cooperatives in the Willamette Valley as a means of assisting farmers to increase their incomes and at the same time to bring about sustained yield and better timber management in general.

In order to predict the practicability of farm woodland cooperatives in the Willamette Valley, the writer felt that it was necessary to make a study of the development and activities of agricultural cooperatives in general to determine the basic principles, work and organization of successful cooperatives and the conditions under which such principles can best be applied.
COOPERATION IN GENERAL

As far back as history has been traced, there is evidence that men have joined together to accomplish things which they were unable to accomplish separately. No doubt one of the primary purposes for their cooperation was protection. They also cooperated in getting food and shelter.

The first recorded instance of cooperative effort dates back several hundred years B.C. when in China a religious custom made it essential for men to undertake a journey to a sacred mountain at least once in a lifetime. Those who were extremely poor found it difficult to save enough money to defray the expenses of the journey. Thus, the Chinese organized the first credit and savings societies.

As early as 300 B.C. the Greeks formed associations for the purpose of promoting the welfare of selected groups. They were financed by annual contributions of those who were able to pay. These organizations were responsible for the protection of the members during periods of illness, the relief of those in distress, and the arrangements for funerals and feasts. (3)
It was not until the early part of the 19th century that cooperative associations began to function on a large scale. The introduction of machinery during the latter part of the 18th century brought about a great surplus of workers in England. The Industrial Revolution coupled with the impoverished England which was the aftermath of the Napoleonic Wars of 1793 to 1816 caused wages to decrease to almost nothing. New work was greatly needed by those who had been thrown out of their old jobs (3).

THE ATTEMPTS OF ROBERT OWEN. Among the cooperative leaders of the early part of the 19th century, a mill owner by the name of Robert Owen was one of the most influential (25).

Owen realized that it was just as important for his workers to use their wages wisely as it was for him to pay good wages. Among the things that Owen did for his workers were to reduce working hours, eliminate labor of children under ten years of age, maintain a sick fund, start a savings bank and open a store where his employees could obtain food and clothing at little more than cost. This store was so successful that Owen claimed that his employees could obtain items at 25% less than at other stores. Because the store had been so successful, Owen dreamed
of a community where cooperation could be carried still fur-
ther. It was a form of successful communism where from 500
to 3000 people joined together for mutual benefit. This
plan was first tried in Glasgow in 1825. However, it was
found that those who were willing to try such an experiment
were lazy, dirty and shiftless. Because of the class of
people who made up the organization, the whole attempt was
a miserable failure (25).

In 1825 Owen also attempted his communistic plan on
20,000 acres of Indiana farm land. Nine hundred people par-
ticipated in the venture. Because of the heterogeneous
makeup of the society, this attempt, like other communis-
ic attempts which came before and after it, was a complete
failure (25).

As a result of Robert Owen's attempts, we may assume
that people will work together as a regular thing only when
they can see benefits to be derived for themselves. All
ambitious people have a desire to achieve success and are
willing to work toward that end. Thus, the cooperative
idea did not perish with the failures of Robert Owen,
but was revived by the Rochdale Pioneers, a group of weav-
ers who formed a cooperative in 1844 (25).

THE ROCHDALE PIONEERS. During the period following
the Industrial Revolution when wages were extremely low and
there was much poverty in England, conditions of factory
workers were especially bad. Workers had the desire to improve their purchasing power. In order to do this, the idea of cooperative buying grew and began to take form. The Rochdale Society of Equitable Pioneers was formed in 1844, consisting of twenty-eight members, nearly all of whom were weavers. Finances were necessary before the store could be acquired. To get the needed finances, each weaver saved two pence a week for nearly a year (25).

During the first faltering years there was much opposition. Indifference and poverty of some of the members had to be overcome by the courage of the loyal members (3).

The organization was so successful that patronage dividends were made after the Act of 1852 made payment legal.

Out of this organization grew what are known as the Rochdale Principles of Cooperation. The following principles govern most of the successful cooperatives of today: (2)

1. Membership and ownership are open to all irrespective of race, nationality, politics or religion.

2. Democratic control: one vote and only one vote is allowed each member and no proxy voting is allowed.

3. Return of gains is made to members through patronage dividends.

4. The interest on capital is limited to current legal rate.
5. Regular funds are set aside for promotional and educational work.

6. Business is carried on for cash only.

7. Sales are made at the prevailing market prices.

Strict adherence to sound business principles is often cited as one of the reasons for the success of the Rochdale Pioneers.

As the cooperative movement in England grew, many similar cooperatives sprang up. Naturally they found themselves competing with one another. It was then that a law was passed which made it legal for local organizations to join together and form central exchanges. It was in this manner that Cooperative Wholesale Societies of England and Scotland grew up. Today they include 1200 affiliated societies with over 7,000,000 members (3).

During the ten years following 1844 two hundred and fifty societies were organized in Great Britain. Most of these failed because they were on a capitalistic basis. When they were organized on a one man, one vote basis, they were more often successful (3).
AGRICULTURAL COOPERATIVES IN DENMARK

The cooperative idea soon extended to other fields than consumer buying. One of the fields in which cooperatives became most successful was agricultural marketing. Agricultural cooperatives were organized in Europe, especially in Norway, Sweden, Finland and Denmark about forty years after the Rochdale Pioneers had established their society. These have proved to be highly successful and it is well to devote at least a few pages to a consideration of these cooperatives. Since the cooperatives are similar, it seems wise to select only one country in order to get a picture of these agricultural societies.

Denmark offers an exceptionally good starting point to illustrate the development of successful agricultural cooperatives, since that country was among the first to have such organizations and has been one of the most successful in the venture (25). The Danish farmers, like the Rochdale Pioneers, had a definite motive for starting their cooperative venture. Conditions in Denmark in 1870 were critical. Denmark had just lost two of her richest colonies to Prussia (25) and she was competing with America for European markets (3).

In order that Denmark's products would command top prices, the farmers felt that high quality products of a
uniform grade were essential. Consequently, in 1882 the first cooperative creamery was built which was highly successful (25).

The necessary capital was created by a loan from a bank but each member signed a contract with the association so that they were all responsible in the event that the venture was a failure (40).

The members delivered their milk to a central creamery where the butter was churned and graded by experts.

The first cooperative cream company proved to be so successful that the cooperative marketing of other farm products began. Thus, today Denmark cooperatives furnish England and other European countries with a large part of their eggs, bacon and butter (78).

Strong local organizations were developed at first, but as they grew, in order to avoid competing with one another, they federated into district organizations and later into provincial and national associations similar to those which exist today (13).

In attempting to give the reasons for the success of the cooperatives in Denmark, it might be well to remember that they are truly cooperative in principle and have the following provisions which are quite similar to the Rochdale principles (19):

1. One member, one vote.
2. No shares of stock are issued, simply certificates of membership. The necessary capital is secured from a savings bank.

3. The proceeds are divided in proportion to the amount of milk delivered.

4. A contract is signed by each member which binds him to deliver to his association for a period, usually ten years, all the milk that he may produce, except that needed in the home. (This phase was contributed by the Danes to the English principles.)

5. All members are jointly and severally liable. This makes it possible for them to secure loans at lower rates of interest.

6. Membership is open to all producers.

7. The annual meeting is the supreme authority as performed by a board of directors elected by the members.

8. A technically trained manager is employed to take care of the actual plant operations and business management. By cooperation a uniform supply of a standard quality product has been brought about. The tastes and demands of the ultimate consumers have been studied and cooperatives have adjusted the supply to meet the demands (15).

Other facts which may be well to consider are that Denmark is a relatively small country quite densely populated, that the people have a common interest, and that it
is a relatively old country where people have known each other for several generations and have learned to trust one another.

The transportation system of Denmark is well developed and the railroads are operated in a manner to give the best service possible at the lowest cost (40).

Another outstanding factor is the wide-spread ownership of land. All but 5% of the farmers are free hold owners (40).

(Note: The above statements pertain to Denmark before that country was invaded by Germany.)
Cooperation among the early settlers of America is evident when one reads of the house-raising and land clearing methods employed by them. When farmers began driving their cattle to market in the latter part of the 18th century, they joined together for mutual benefit of all concerned.

As in Denmark, dairy farmers were the first to attempt collective action in marketing. A cooperative cheese factory was established as early as 1810 (24).

**COOPERATIVE GRAIN MARKETING.** The first cooperative grain elevator was built by a group in Wisconsin in 1857. This and other elevators started before 1883 failed due to the temporarily improved general price level and the lack of interest (24).

Toward the middle of the century grain elevators began to appear. There was a definite reason for the farmers' elevator cooperative movement. After the Civil War, railroads were being built into newly settled grain producing districts. Naturally, those who had financed the railroads saw the possibilities in the grain elevator business and developed the two simultaneously. With one company owning both the railroad and the elevators, monopoly became a factor. Individual operators and smaller companies engaged
in the grain business on a competing basis were hampered because these "special line elevators" practically dominated the area.

The agencies which were present and could compete with the line elevators were at a decided disadvantage since the railroad would charge a high price for the shipping of the grain and then make rebates to the elevators affiliated with the railroad interests (53).

In order to reduce the marketing costs and get the price for the grain which the terminal market justified, farmers organized an elevator company and erected an elevator. They also hired their own manager (25).

At first the farmers' elevators had numerous difficulties. Grain dealers' associations attempted early in the movement to force commission firms to refuse the business of farmers' elevators. Line elevators would often pay more for the grain where farmers' elevators were established and pay less where there were no farmers' elevators.

The main reason why these farmers' elevators were successful is because the members were loyal to the organization. In considering other reasons for the success of the grain cooperatives, it is well to remember that there was a true economic need for the organization, that the objective of the organization was for the financial gain of the members, and that there was a genuine desire for the society
on the part of those who were expected to support it (53).

At first the local associations were the prevailing type of cooperative, but as they developed they competed with one another. It was found that certain services could be performed more advantageously if several of them joined together in an overhead organization known as a federation. Thus the federation came into being in the United States which is to be found today (24).

COOPERATIVE MARKETING OF CALIFORNIA FRUIT. Simultaneous with the development of the grain growers' cooperatives the fruit growers' associations were organized. Among the largest and most successful cooperative organizations in America is the California Fruit Growers' Exchange.

Like the other successful cooperatives, the California Fruit Growers' Exchange grew out of economic injustice. Early in the 1880s when the fruit industry of California was in its beginning, farmers prospered by selling their fruits to speculative buyers who shipped it to larger markets (25). But because there was no understanding between the buyers as to the distribution of fruit among eastern markets, both gluttoning and undersupply came about. Marketing of the fruit through dealer purchasing were such that farmers got almost nothing some years for their fruit. By 1885 marketing conditions were unbearable (48).

To increase the prices paid the producers and to
eliminate the fraud of middlemen and commission houses, 
the fruit growers of California organized the Orange Grow-
ers' Protective Union of Southern California in 1886. 

Under the direction of the executive committee, not 
more than five men were sent East "to sell, regulate and 
distribute and do all services as required of them by and 
under such regulation as the executive committee or the 
board of directors may require" (48).

To finance the organization, each member signed a con-
tract agreeing to pay the organization two and one-half 
cents on every box of oranges or lemons which he shipped 
or sold, regardless whether the sale was made by the member 
personally or through the Orange Growers' Protective Union 
of Southern California.

Under the organization the members were informed of 
the best methods of growing, packing, and shipping fruit 
as well as the market conditions. Shipments were directed 
so that there was no over supply.

At first the organization was an immense success. The 
prices of fruit increased, more oranges were shipped and 
there was a considerable saving in freight rates.

The organization failed after several years of appar-
ent success because of the persistent opposition of commiss-
ion men who were able to make large profits by dealing with 
farmers individually (48).
During the early part of 1891 and 1892 the Riverside Orange Trust and the Riverside Orange Growers' and Packers' Protective Association were created, but both of these organizations failed because the interests of the growers and the packers were adverse.

Because of the impending bankruptcy of the industry, it was still felt that general organization was the only means of saving the industry. A plan of a district of exchanges to act as a clearing house on marketing information with affiliated associations for packing fruit was started at Riverside in 1893 (48).

The purpose of the plan of cooperation was to promote uniform and better methods of packing and handling and to secure the economic advantages of a large pack with possibilities of cheaper materials and lower freight.

As this organization developed, a similar marketing association sprang up in southern California. In the northern part of the state the citrus industry had been developed and in 1900 the Tulare County Citrus Fruit Exchange with Mr. Spratt as secretary and treasurer was set up. (It may be well to note that Mr. Spratt still held this position in 1925.)

The growth of the industry in the north called for a more comprehensive association and in March 1905, the California Fruit Growers' Exchange was organized as a
The fruit growers of California, like the grain producers of the Grain Belt, organized local associations first formed by the growers of a community. Members of such organizations know each other. All local associations are controlled directly by the growers and are operated on a non-profit basis.

To finance the local associations, stock is issued in proportion to the bearing acreage, the number of boxes shipped or in equal amount to each grower. The association is managed by a board of directors and a manager. They accumulate no profit and declare no dividends. Fruit is graded and sold each month and members receive their proportion according to the amount of fruit of different grades which they have for sale.

To assist in the marketing of the fruit at the local associations, the local associations are federated into district exchanges.

The district exchanges are federated to form the central exchange which is the California Fruit Growers' Exchange. Each district exchange nominates one person to act for it as a member of the central exchange. The only duty of the central organization is to market at cost the fruit which the farmers produce. To do this it is essential that they establish an estimate of the amount of fruit
produced in the United States in any one year and determine the best possible means of selling it. The growers are paid through the local exchanges as soon as the fruit is sold.

In considering the reasons for the success of the California Fruit Growers' Exchange, we should first remember that there was a definite need for such an organization. Also, we must remember that several types of organizations failed before the California Fruit Growers' Exchange was successful. Another reason for the success of the organization may be attributed to capable management of the leaders. It should be remembered that all the members of the cooperative have the same objectives and are interested in the production and sale of fruit more than any other one thing. The transportation system in California is comparatively good. The farmers of the local exchanges all know each other and they are not isolated from one another. The organization is run on a truly cooperative non-profit basis (25).
As we study the success and failure of cooperatives throughout the United States and Europe, we may ask what has been the success of cooperatives in general in Oregon. In other words, before we can attempt to predict the possibilities of farm forestry cooperatives in the Willamette Valley, we should study the success of cooperatives in general throughout the area.

Farmers' cooperatives date from the early nineties in Oregon. Today about one-fourth of the agricultural production of the state is marketed cooperatively. For the past forty years, cooperatives in Oregon have had a steady growth. They have been organized because Oregon is a surplus producing state which must market much of its produce in the eastern part of the United States or in foreign countries (70).

To help the farmers produce quality products at low producing and marketing costs, cooperatives have been set up. Throughout the state there were 166 marketing and purchasing cooperatives in 1937. It is estimated that about one-half of Oregon's 65,000 farmers are dealing with one or more cooperative or mutual companies (70).

In the state there are fifty-seven fruit and vegetable cooperatives, thirty-eight dairy cooperatives, sixteen
grain, five livestock, nine nut growers, six poultry, one wool and eight cooperatives selling various farm products (70).

Most of the cooperatives are owned and controlled by members who usually purchase stock in the cooperative. The amount of stock purchased runs from three dollars to over one hundred dollars. Eighty-two of the associations require initial investment of ten dollars or less; thirty-one require from eleven dollars to forty-nine dollars; twelve require from fifty dollars to ninety-nine dollars and only eleven require one hundred dollars or over.

Eighty-seven percent of Oregon’s marketing and purchasing cooperatives conform to the one man, one vote principle. Members participate in the election of the board which hires the manager and, in general, directs the affairs of the association.

Most of the cooperative associations sell farm products or buy farm supplies at regular market prices. At the end of the year, the books are balanced; a certain percent of the profit is retained to invest in the business and the rest is pro-rated back to the members as patronage dividends (70).

Favorable state legislation has stimulated the organization of cooperatives by providing for the protection of the society and by establishing it on an equal footing with
other business organizations in the state (59).

These facts indicate that cooperatives are practicable in Oregon and that the public is apt to be "cooperative minded" which is a definite aid in establishing cooperative societies. Mehl (53) says that the cooperative viewpoint is half the battle in establishing a cooperative.
ATTITUDE OF FARMERS IN THE UNITED STATES

Farmers in the United States have not been so eager to join cooperatives in the past as farmers in Denmark and other European countries have been. In Denmark it is not at all unusual for a farmer to be a member of eight or ten cooperative associations (25). While the cooperative movement in the United States has grown quite steadily during the past forty or fifty years, the farmers have been more reluctant to join cooperatives. There are several reasons for this.

America is a relatively new country and farmers have not been as permanently settled as in other countries. Consequently, they have not known each other long enough to know whether or not they can trust one another. Furthermore, they have had the idea of independence instilled in them so long that it has had a bad effect from a cooperative standpoint (81).

Many farmers do not have the long time viewpoint and are easily led astray by competitive organizations which are undermining cooperative business by selling their goods at less than the price at which cooperatives will sell, or buying at prices greater than the price at which local associations will buy products (81).

Although the farmers in the United States have been
more reluctant to join cooperatives, under circumstances
where cooperatives have been tried, it has been found that
they do result in an increase in the farmers' income. At
this point it may be well to consider the different ways
by which cooperatives can increase the farmer's income.

1. The cooperative that receives a large percentage
of a crop and is supported by excellent market information
and a national distributing system commands a position that
enables it to obtain the most favorable selling price (3).

2. The cooperative can produce standardized goods
which are graded and will command higher prices (13).

3. The cooperative can study the demand for a product
and regulate the supply so that there is no over-production
or under-production and in this way can stabilize prices
(13).

4. Crop and market information can be supplied by the
cooperative. In this way the production of a better qual-
ity product can be brought about (41).

5. Cooperatives can build up outlets for a product by
advertising and other means. This is impossible when farm-
ers work separately (41).

6. By purchasing supplies cooperatively, farmers can
save money (41).

7. Costs of marketing are greatly reduced in many
cases because there is no exploitation by the middleman and
farmers can market their products at cost (44).

8. Distribution of the products is improved because cooperatives can study the demand and ship accordingly (44).

9. Equipment can be cooperatively used in thousands of industries throughout the United States (81).

10. Transportation costs can be greatly reduced in many instances where one farmer does not have enough material to make a carload.

11. A cooperative can furnish enough of all grades to keep a full line and thus attract buyers (13).

12. A cooperative can, through organized effort, secure legislation conducive to the business of the members (25).
SUMMARY AND CONCLUSIONS

Before considering the success and failure of different types of farm forestry cooperatives in Europe and America, it might be worthwhile to summarize the fundamentals which seem to have prompted the success or failure of the different cooperatives thus far considered.

SUCCESSFUL COOPERATIVES. First are considered the items which seemingly have encouraged successful cooperative associations.

In every case of successful cooperatives there has been a definite need for the society. Farmers set up their own agencies because they are receiving low returns for their products, the existing method of marketing is too costly or the services of the middleman are inadequate or unfair. The basic reason for the establishing of cooperatives is the small scale production on most farms. By joining together farmers are able to produce a product of standard quality and sufficient quantity to command better prices on the market.

Successful cooperatives have a definite purpose. In most instances the purpose has been to save money for its members by lowering the costs of distribution, improving production, integrating marketing and production operations, eliminating wastes, preventing expensive duplication
of agencies, and distributing products in a systematic way.

Most of the successful cooperatives follow the Rochdale principles of cooperation which include:

1. Open membership and ownership irrespective of race, politics or religion.

2. Democratic control. Each member has one vote regardless of how much stock he owns.

3. Limited return on the capital invested. Returns are made to the members as patronage funds. Thus, the amount returned to any one patron depends on the amount of business which that person does with the cooperative.

4. Regular provision of funds for promotional and educational work of the members.

5. Cash trading is carried on entirely. Patrons cannot run bills with a cooperative.

The successful cooperatives have been financed by the members themselves. The feeling of each member that he has money tied up in an organization seems to make him work hard to make that organization a success.

As has been illustrated in all cases of successful cooperatives, the members must necessarily be loyal to the society. Cases have been cited as in the case of the farmers' elevators where the loyalty of the farmers was responsible for the success of the organization.

That an efficient manager of the cooperative is
essential has also been illustrated as in the case of the California Fruit Growers' Association.

It has been shown that cooperatives are most successful where the members know each other and are in close contact with one another. The members of a successful cooperative have similar interests; they are working toward the same goal.

The attitude of the people toward one another is especially important. Areas where the people are of the same race and nationality are by far the most favorable for cooperative establishment. In communities where the people have faith in one another is where cooperation has been successful.

Although the democratic principle of control has been given as an advantage, it has also been illustrated that men and women with similar ideas and objectives should make up the cooperative. As an example, the California Fruit Growers' Exchange may be cited. Although the producers have handled their own products successfully for more than twenty years, 15% of the growers have not affiliated with the California Fruit Growers' Exchange or any other cooperative and it is believed that the association is just as effective without them.

The transportation systems of the successful cooperative countries are usually well organized. Isolation
is a fundamental hindrance to agricultural cooperation.

To be effective in bringing about a savings for its members, a cooperative must do a sufficient volume of business. Most of the successful cooperatives in the United States handle only one or a few closely related commodities. Thereby, the common interests of the membership are recognized, a minimum of specialized labor, facilities and capital investments are necessary, and allocation of cost of handling is less involved.

Successful cooperatives make provisions to help those who want to understand cooperatives and thus, the possibilities of coordination are brought about. The success of the cooperative depends largely on the people who are identified with it.

Successful cooperatives do not cut prices in order to get business. Savings are distributed in proportion to patronage to members. If advanced payment is made, it should not be for more than the worth of the product (25).

UNSUCCESSFUL COOPERATIVES. Circumstances which have caused the failure of many cooperatives are in most instances the lack of such items as the writer has listed as those which prompt success. However, that the discussion may be complete, the items which have caused most cooperatives to fail are listed.

1. Those cooperatives which have not served a definite
need have died from the lack of interest among its members.

2. When groups of members had conflicting purposes in mind the organization failed. The Orange Growers' and Packers' Association failed because the growers and packers joined the cooperative for two different reasons.

3. Poor management has been given as a reason for the failure of many cooperatives.

4. Derrick's summary (26) of causes of failure is:
   a. Organization was set up too hurriedly without full knowledge of existing facts or full appraisal of some of the factors necessary for success.
   b. Members are improperly advised as to the possibilities of a cooperative.
   c. Members expect too much from cooperation.
   d. Organization made extravagant promises.
   e. Members have not realized the importance of a competent management.
   f. Directors were employees of the association.
   g. Directors have not realized that they must pay adequate salaries for competent management.
   h. Sufficient capital is lacking.
   i. The association bought too much property before their needs were clarified.
   j. Operations were attempted with insufficient volume of business.
k. Operation costs were too high.
l. Operation was conducted with too much overhead.
m. Reserve capital was used to meet competition.
n. Sufficient reserves and surplus were not built.
o. Association attempted too many delivery points.
p. Management attempted to set arbitrary prices without full knowledge of supply and demand.
q. Organizations developed into holding associations.
r. Secretive policy of management caused distrust by members.
s. Contracts contained no withdrawal provisions.
t. Management antagonized existing trade interest by criticism of past methods.
FARM FORESTRY COOPERATIVES IN EUROPE

When discussing the possibilities of sustained yield management in the forests of the United States, foresters often refer to the European systems of management. The administrative systems of such countries as Finland, Sweden, and Germany are much different than that in the United States. Although several of the countries have turned to cooperative management of farm woodlands as a means of improving farm forestry practices, the woodland cooperative is of somewhat different character than the agricultural association since they are partially controlled by legislation. It is the purpose of this discussion to present the general plan under which farm forestry products are produced and marketed cooperatively in some of the prominent timber producing countries of Europe.

Forest land owners' cooperatives have been in existence in some countries of northern Europe for a long time, Sweden and Finland in particular, having well defined and successful types of cooperative activity.

Farm forest products in Germany had been marketed with some success in the past. However, the cooperatives have been discontinued and all these functions have been taken over by a government sponsored organization (1).
FARM FORESTRY COOPERATIVES IN FINLAND. In Finland the owners of small woodlands found themselves considerably handicapped. Because many of them did not have enough timber to market it at a profit, much good timber was frequently put to an inferior use. Under these conditions, the management of the woodlands was not all it should have been.

To encourage and guide private owners in the proper handling of their forests, to help them get the maximum returns, to engage in the preparation and merchandising of forest products for export and to direct the activities of local forest associations, the Central Cooperative Society of Forest Owners was organized in 1921 with a capital of 10,000,000 marks.

Common stock can be acquired only by local "cooperatives" or associations of forest owners following cooperative principles, by communes, or by the State. Preferred shares are also sold to individuals or corporate forest owners. In 1926 shareholders included about 8000 private owners, 176 rural communities, 80 cooperative dairies, and a large number of parishes, cooperative mills and other societies.

The society is headed by three directors with an advisory council of nine men.

Of the net profits, 30% is put into a reserve fund, 10% is used to redeem shares, 7% is paid to stockholders
with an additional 2% on preferred stock if funds are available. The balance is paid in the form of patronage dividends. Up to 1927 eight local cooperatives had been organized with many more being contemplated.

Any individual or corporated forest owner within the territory of a local society may become a member.

Local societies handle sales of forest products within the country, but the central society handles all export business. Local societies furnish and several of them own sawmills and saw logs for their members.

The local cooperatives put part of their savings into a reserve fund. They pay the shareholders up to 2% more than the prevailing rate of interest and prorate the balance among the owners for whom business has been transacted during the year.

By pooling their timber, owners attract buyers and are assured a better market.

Since more than half of the forests of Finland belong to private individuals, mostly in comparatively small holdings, the success of such a program is of great importance in Finnish Forestry (69).

From all indications the Finnish program has been succeeding in reaching its objectives (1). It should be noted that the cooperative is set up on true cooperative and democratic principles. In so far as the writer could
determine the basic principles of successful cooperatives have been carried out in Finland.

FOREST LEGISLATION IN FINLAND. The method by which the forest legislation of Finland attempts to reach objectives of better woodland management is different than that in the United States and this probably should be illustrated.

Prescriptions against the devastation of woodlands are contained in an ordinance of 1917. Control over the observations of prescriptions is performed by a forestry commission in each parish. Every county forestry commission is required to employ a county forest inspector. This county inspector must be a technically trained forester. He is entitled to engage the necessary help which he may need.

State control of the observations of the forest laws is practiced in one of two ways. The government may do it directly or they may do it by means of local commissions which are set up in the districts. When local commissions were set up, the people of the community have an opportunity to elect one of the three members (51).

FARM FORESTRY COOPERATIVES IN SWEDEN. In Sweden the farm forestry cooperatives are in the form of associations much like those of Finland (1).

The forest laws are also carried out in much the same manner as those of Finland.

"To supervise the observations of the prescriptions
and on the whole to forward silviculture by all means, a Forestry Commission is set up in every county." (51).

The commission, consisting of three members, is elected for three years. One member is elected by the government, one by the county council and one by the local agricultural society (51).

When necessary to assist the county forest commissions forestry commissions can also be set up in single parishes.

FARM FORESTRY COOPERATIVES IN FRANCE. Small woodland owners of France were at a disadvantage in 1907. To bring about proper woodland management and reforestation seems to be the objective of most of the farm forestry cooperatives. Although cooperatives, established solely for the purpose of marketing woodland products supposedly are to be found in France, the writer was unable to find any material on that type of cooperative.

Cooperatives for production and sale of farm forest products carry out projects on lands bought by members. The cooperatives manage and replenish forests and sell the wood products for the benefit of the society.

The cooperative is financed by the member who contributes money as well as land. Each member possesses a certain number of shares of capital stock in addition to the shares that he receives which are representative of the value of the land. To be a member it is necessary to own
at least one share of stock. Members must be land owners. Each member agrees to turn over to the society for a period of time fixed by the statutes the entire ownership of the land which he wishes to reforest.

Interest is paid the share-holders providing it is available. When cuts are made, debts are paid, a replanting fund is set aside, 5% legal reserve is saved and the rest is distributed among the members on a basis of shares representative of the value of their lands (12).

FARM FORESTRY COOPERATIVES IN GERMANY. In Germany before the government took over the functions of the cooperatives, cooperative marketing had apparently been quite successful (1).

Cooperative enterprise was also used as a means of improving management in the small much divided forest properties. There were two types of cooperatives. In one type, the forest became a common, cooperative property and each member had only a share in it. In the other form, each member retains his separate property and the cooperative covers only specified purposes such as joint administration, protection, and sales of products (37).

Associations of forest owners were organized as a means of protecting the forests of Germany against exploitation. Various local associations were formed at first and these finally united into national federations.
Lectures and publications were used to awaken the German public to the national importance of forestry (37). Knowledge of forestry was encouraged through silvicultural courses and methods of proper management demonstrated by excursion trips. Forest laws were also explained (17).

These organizations did not usually come about spontaneously, but only through the help of legislation (37).
In order to encourage and assist owners of farm woodlands to increase the productivity of their lands and to adopt better woodland management policies, the possibilities of cooperative action among farmers is being given considerable thought by foresters throughout the United States.

While the movement is comparatively new, it is being tried out in various parts of the United States, mainly in the East. To illustrate the objectives and reasons for setting up farm forest cooperatives in the United States, a discussion of the existing cooperatives follows.

Though the first large scale farm timber marketing cooperative was set up in 1935, the idea of farmer cooperatives for woodland owners is by no means a recent one. More than twenty years ago Gifford Pinchot said,

"If farmers are to secure for themselves the full advantage of their timber, they must act together. If farmers were more in the habit of getting together along cooperative lines, there would be many opportunities for joint woodlot operation." (64)

The farm forestry cooperatives in existence in the United States at the present time include the following:
2. Tioga County Woodland Owners' Cooperative, Inc., Tioga County, New York.
4. West Virginia Forest Products Association, Terra Alta, West Virginia.
5. Farmers' Federation, Inc., Asheville, North Carolina
6. Negro Farmers' Sawmill Cooperative, Fayette County, Texas.
7. Farm Forestry Products cooperative at Snohomish, Washington.

Maryland, Mississippi, Iowa and Carroll County, New Hampshire reported in letters to the writer that cooperatives were in the formative stage.

FOREST PRODUCTS ASSOCIATION, INC. The first large scale farm timber marketing association was set up in 1935 by the New Hampshire Extension Service and the FERA at Groveton, New Hampshire. To find the reasons for starting this cooperative, it is necessary to know something of the conditions existing in New Hampshire and Vermont before the association was formed. The combined acreage of Coos and Essex County is about one million two hundred and twenty-five acres. Most of this is owned by large industrial
concerns, but farmers and small owners control over two hundred and fifty thousand acres of forest land. The forest stand, together with mill products forms the principal source of income for the average farmer.

Vermont and New Hampshire were hit by the depression of 1929. Markets were practically non-existent and banks were not in a position to finance woods operations.

In 1929 cooperative marketing of Christmas trees was tried out through an association organized by the Coos County Farm Agent and the New Hampshire Extension Service. Between 1929 and 1935 five carloads of Christmas trees had been shipped by the cooperative.

To stabilize the income of woodland owners and at the same time to place the woodlands on a sustained yield basis the Extension Service decided to form a cooperative, the purpose of which was to create and maintain an organization for marketing, selling, processing, grading, manufacturing, sorting, handling or utilizing forest products or by-products (5). At first the purpose was to market only pulpwood to two large paper mills in the area (39).

In the winter of 1933 and 1934 the Extension Service appealed to the Federal Emergency Relief Administration and this agency granted an allotment of $100,000 to the New Hampshire Rural Rehabilitation Corporation for the purpose of financing a cooperative. The money was loaned to
woodland owners and was secured by a mortgage on their wood products.

Seventy-five farmers took advantage of the loan system the first year and cut 6,000 cords of pulpwood which was far short of the amount that the pulp mills had contracted for. One of the reasons given for the disappointment the first year is the fact that the loans could be made only to farmers on relief. Evidently, many of the farmers who really needed the loan were too proud to admit the fact.

In September 1935 one-hundred and eighty-two woodland owners petitioned the government to remove the stipulation that they be on relief in order to secure a loan. The government refused to accede to the petition unless there was a more closely knit organization formed (46).

Eventually, three hundred farmers attended a meeting and organized the Forest Products Associations, Inc. The principles upon which it was set up included one and only one vote for each member. The by-laws also provide for annual meeting of the entire membership and a monthly meeting of the board of directors. No membership fee was charged. Eleven directors were elected by the members of the organization.

To finance this association a committee was appointed which negotiated a loan of $100,000 from the Resettlement Administration to be used as working capital. This money
was secured by a mortgage on all property owned or later to be acquired by the association.

Each member was required to sign a marketing agreement which contained a considerable amount of legal talk which really frightened away a number of potential customers.

April 1, 1937 an order of the Secretary of Agriculture transferred supervision of the $100,000 government loan from the Resettlement Administration to the U.S. Forest Service. The method of loaning money was simplified. An initial loan of $200 could be secured by each producer by signing a promissory note. Under terms of the contract, the producer could contract to sell his wood at the present market price or contract to sell it at the market price on delivery. The association will advance the producers from $1.50 to $3.00 per cord to cut and peel their wood. When this wood is delivered to the mills these loans are deducted together with any interest charges and the balance less a small percent for running expenses reverts back to the producers (46).

From May 21, 1937 to May 21, 1938 the value of the pulpwood sold amounted to $191,619.84. Ninety percent of farm woodland pulpwood was shipped through the association.

The association began to expand the scope of its business by dealing with hardwood sawlogs, softwood sawlogs
and Christmas trees to guard against the possibility of pulpwood prices dropping (as they had in previous years) and thus disrupting the organization.

For the year ending May 21, 1939 the sales from sawlogs and pulpwood amounted to $184,644 and Christmas Trees sales amounted to $10,530.71.

For the purpose of improving cutting and forestry practices on the land of its members, the sales contract contains a clause in which the producer agrees to cut his land in accordance with the recommendations of the State Extension Service and to handle his woodlands in accordance with principles of maximum sustained yield. To illustrate the proper methods of cutting, the U.S. Forest Service and the New Hampshire Extension Service cooperated in establishing sixty demonstration plots on sixty different farms. On each plot the trees to be removed were marked. Producers were to cut the remainder of their farm woods accordingly.

The success of this method of bringing about good woodland management may be doubted by many, since a check of 168 members in 1938 showed that 89 members were clear-cutting their lands and 18 were clear-cutting farm pasture. The remaining 61 members were leaving their lands in good condition.

J.H. Morrissey, manager of the veneer company to which
the cooperative delivers logs, says that his concern and its 160 members would be inactive today if it were not for the fact that the cooperative maintains a regular and orderly supply of timber (39).

According to the present by-laws the business should be carried on according to genuine cooperative methods as follows:

1. One vote for each member.

2. Interest paid on membership capital at not more than 5% per annum.

3. All net earnings, after paying running expenses setting aside not less than 10% or more than 5% for education in cooperative principles, to be propagated among the members on a basis of their participation in the organization's productive and/or consuming activities as the case may be, or by vote of membership used collectively for social purposes.

4. Membership is limited to owners of forest lands, who agree to carry out improved forestry practices for the protection and perpetuation of our nation's forest resources, and to cooperative societies, farmer's and forest owners' associations as defined in the by-laws.

5. Political, religious and social neutrality.

6. Business on a cash basis only.

7. No proxy voting.
First, let us consider the conditions which preceded the organization of this association. Otsego County, New York was at one time a county of fine forests. Although the economic activities of Otsego County are primarily agriculture, it has been found that a large area is poor agricultural land. Prior to 1910 Otsego county was a large hop producing area, and a large part of its income was derived from this source. This crop has been largely eliminated by disease, competition and prohibition which served to accelerate the downward economic trend of the county. Since 1910 the economic status of farm owners has been considerably lowered (45).

The transportation system within the area is well developed with about three hundred miles of hard surfaced highways and one thousand miles of secondary roads which are kept open most of the year (6).

Because there was little to base the possible success of a venture into cooperative management and utilization for farm woodlands, the Northeastern Forest Experiment Station made a comprehensive study of an area surrounding Cooperstown, New York. Within the merchantable stands a one hundred percent tally of all trees over five inches D.B.H. was made.

Local mills are seldom able to produce seasoned graded
and well cut lumber and there was a definite need for permanent mills, designed and equipped to manufacture and dry stock efficiently for a variety of markets.

"The purpose of the Otsego Forest Products Cooperative Association is to provide a farmer-owned and controlled service which will:

1. Promote, foster and encourage the better care and increased productivity of woodlands.

2. Provide a means of marketing farm woodland products which will bring to the farmer-owners maximum possible benefits in:

   (a) cash income at frequent intervals from stumpage or log sales.

   (b) opportunity for off season work for men and teams

   (c) and improvement of his woodland."  (Taken from mimeograph sheet prepared by the cooperative.) (63)

The responsibility for management rests on five directors who are elected for overlapping terms of three years. Any farmer or woodland owner who wishes to participate may do so if he will sign a marketing agreement which states that members sell only through the association and handle their woodlots in accordance with forestry principles.

The cooperative is based on truly cooperative principles with the usual one vote per person, an annual return
in the form of interest of not more than 8% on the par value of the shares nor is any member to hold more than 1/20 of the common stock or entire capital of the association.

The association was financed by a loan of the old Resettlement Administration in 1937. Additional funds were obtained through another loan from the Farm Security Administration to complete plant equipment (63).

The association at the present time has a processing plant which consists of a small modern band saw for handling high-quality logs and a small circular saw for handling poor logs and bolts as well as remanufacturing equipment suitable for making small dimension stock and a modern dry kiln (63).

The association at present has 350 members.

WEST VIRGINIA FOREST PRODUCTS ASSOCIATION. Although approximately one-third of all the land owned by farmers in West Virginia is forested, most of the farmers, for one or several reasons have failed to make forested parts of their farms yield an income sufficient to interest them in active management of their woodlands (27).

To study the possibilities of solving problems discouraging the management of woodlands, the cooperating land owners formed an association known as the West Virginia Forest Products Association which was incorporated under the West Virginia agricultural cooperative marketing act.
The association was organized in 1938. In November 1939 the association had eleven members who owned commercial timber land totaling 5,726 acres. It handled more than $11,000 worth of business during 1939 (27).

TIOGA WOODLAND OWNERS' COOPERATIVE, INC. To bring about the practice of better farm forestry, J.A. Cope, extension forester, New York, was convinced that cooperative marketing of forest products with control of cutting was the most satisfactory method of doing it (27).

The Tioga area was selected because of the large acreage of farm woodland, many improved roads, and number of wood using industries (19). Five well developed wood using industries are within twenty miles of the area. The owners of about one thousand acres of forest land indicated interest in the formation of a cooperative (27). The need for cooperative organization to offer improvement of the farmers conditions in the matter of log scaling was brought out at several of the meetings.

A one hundred percent survey was made by the Forest Service Region 7 in 1937-38 with the cooperation of the Soil Conservation Service and the Extension Service of the New York State College of Agriculture (27).

The cooperative was actually organized in January, 1939 with a board of seven directors governing proceedings. It (the board) has hired a timber marker and a log scaler.
This is the first private non-subsidized cooperative prepared to handle all the woodland products of the farmer. Membership is open to any woodland owner or tenant who makes application, agrees to abide by the by-laws, signs the marketing agreement and pays an annual fee of one dollar (19).

Upon becoming a member, the woodland owner agrees to have his trees marked before cutting, to market woodland products through the associations and to pay extra costs involved in marking, scaling, and bookkeeping. In return the association agrees to furnish a qualified timber marker and scaler and to act as a lawful agent in securing the best possible price for the products sold and to mix the forest products from different members if it is in the best interest of the members as a matter of encouraging economy or expediency (19).

It is far too early to say whether or not the organization will succeed or fail, but during the first half year about 63,000 board feet of timber was cut, skidded, delivered to plant and paid for, on the basis of the Scribner Log Rule. Much of the timber removed was of inferior quality and the forests have been improved by its removal (27).

NEGRO COOPERATIVE SAWMILL. Another cooperative of interest is a negro farmers' cooperative sawmill in Texas
which was formed in 1937 (22).

The Negro county agent, E.A. Randolph perceived the idea that a large number of Negro families could obtain lumber for much needed repairs of their homes by purchasing and operating a cooperative sawmill in Fayette County.

Ten members purchased the sawmill at a cost of $355. Sawing is done on the farms of members at cost. Non-member patrons pay $12 per M and the mill is set up in the woods.

In addition to cutting lumber for themselves and non-members, the cooperatively owned mill is being used to cut lumber for a Negro Extension Service building at LaGrange, Texas (22).

TIMBER COOPERATIVE IN WASHBURN COUNTY, WISCONSIN. Efforts were being made during 1937 and 1938 to furnish labor to local farmers through the cutting of pulpwood in the county forest. The Conservation Department and Agricultural Extension Service cooperated with the farmers and the Division of Cooperative Marketing of the State Department of Agriculture and Marketing and furnished the services of Mr. Ralph Fisher to assist in drafting the necessary legal documents and to explain the procedure to establish a cooperative marketing association.

A meeting was held September 6, 1939 at the conclusion of which five farmers signed the articles of incorporation and agreed to advance the necessary fees for recording with
the Secretary of State. A contract note is made and signed by each cutter of pulpwood which the county furnishes obligating him to deliver at a specified landing a definite number of cords of peeled pulpwood.

Money to finance the wood cutters while they are working is borrowed from the bank or from the purchaser. The association advances a sum equal to about one-half the ultimate selling price per cord. The unpeeled wood is cut and piled at the nearest truck-loading point.

Final payment is made to the producer after delivery of the peeled products to the mill. This payment is equal to the selling price, less interest on the loan, scaling charge, trucking costs, county stumpage, and a small service charge made by the association to defray overhead.

To make certain that the cutting is done according to proper management practices, the district forester prescribes cutting regulations.

According to a letter from F.B. Trenk, Extension Forester of Wisconsin, the cooperative has signed four different contracts covering sales and delivery of raw materials (74).

FARM FORESTRY COOPERATIVE AT SNOHOMISH, WASHINGTON.
The first farm woodland cooperative on the Pacific area was started recently at Snohomish, Washington. This cooperative was begun as a result of activities of the Soil
Conservation Service in that area. From studies made, it was determined that a large amount of the farm land in that vicinity was suitable for woodland crops. Woodland surveys made on fifty farms indicated that there was sufficient volume and variety of species as well as market outlets to make a woodland cooperative feasible.

To keep areas classified as farm woodlands in that type of use, a farm forestry cooperative was organized. Fifty-five farmers signed up at a cost of $2.50 each, membership dues.

Management plans have been worked out in order that each cooperator may manage his woodlands on a sustained yield basis. The board of directors has been chosen and a president elected who serves without pay.

In a letter of April 25, 1940, Orlo W. Crauter, Area Conservationist at Tacoma, Washington, advised the writer that the cooperative was awaiting the final approval of the Secretary of State.
SUMMARY

In the foregoing pages the writer has attempted to picture the general principles of farm forest cooperatives as they exist in both Europe and the United States. Though, there was very little material available concerning woodland cooperatives in Europe, it is believed that enough material has been reviewed to present the basic principles.

Farm forestry cooperatives have been most successful in Finland and Sweden. It is to be noticed that the objectives of the cooperatives in Europe are similar to most of those in America; i.e., to improve the condition of woodlands and at the same time to increase the farmers' income.

In Finland and Sweden, we have learned, they have federated cooperatives. Also, their cooperatives are operated in such a manner as to make the forest owners live up to the forest laws of their governments. Although several of the local cooperatives in Finland own sawmills and saw logs for their members, J. A. Cope, extension forester, New York, says,

"Even in Finland where the cooperative idea has been worked out to a greater extent than anywhere else in the world, woodland owners' cooperatives have been a distinct failure, where in addition to growing the raw materials
an attempt was made to do the processing". (27)

Woodland cooperatives have been established in France to bring about proper woodland management and reforestation of the wooded areas.

The cooperative principle in that country differs from those in most of the other countries in that each member agrees to turn over to the society for a period of time fixed by the statutes the entire ownership of the land which he wishes to reforest.

A replanting fund is set aside when final cuts are made. The cooperative manages the forest throughout its rotation.

Before the government took over the function of cooperatives in Germany, such organizations were used as a means of improving management in the small, much divided forest properties. Cooperatives were established to protect forests from exploitation, to encourage proper management through silvicultural courses and to awaken the general public of Germany to the national importance of forestry. Cooperative marketing had apparently been quite successful as an auxiliary to the above objectives.

Evidently, most of these organizations which were established through assistance from the government were either of two types. In one type, the forest land became a common property while in the other, each member retained
his separate property and the cooperative covers specified purposes such as joint administration, production and sale.

The farm forestry cooperative movement in the United States is too recent to determine which cooperatives have been successful and which ones have not. However, a review of existing cooperatives was made and some observations can be made as to the different types of cooperatives. Thus far there is no evidence of federated farm forestry cooperatives in the United States as was discovered in most of the countries of Europe. Perhaps this is something which will come out of the development of cooperatives in the United States.

In this country there are no cooperatives which take over the ownership of the woodlands for a definite period as was the case in France and Germany before the German government took over the duties of the cooperatives.

The Forest Products Association, Inc. was organized in 1935 to stabilize the farmers' incomes and place the woodlands on a sustained yield basis by maintaining an organization for marketing, selling, processing, grading, manufacturing, sorting, handling or utilizing forest products or by-products. The organization was financed by a government loan. At first the plan was to sell only pulpwood and to operate mainly as a bargaining agency. Through difficulties encountered by the organization, the fallacy
of this approach was determined. Now, the organization deals with a number of forest products and by-products.

The Forest Products Association, Inc. has had several setbacks. From the preceding review it can be seen that most of the causes for setback were that the cooperative had in its early history failed to follow true cooperative principles.

The first disappointment came when farmers failed to sign up with the association because in order to do so, it was necessary that they be on relief. The method of financing at that time could hardly be described as conforming to true cooperative principles.

Later the association nearly "went on the rocks" due to an exacting credit arrangement which assessed the wood producer a ten percent commission on the total value of his sales through the association as well as interest charges on the production loan. Producers were in this way really penalized for their cooperation (73).

At one time the operators cut 20,000 cords in excess of the demand because of lack of the attention of the management to principles of marketing and failure to study the demand.

Now that the association is on a true cooperative basis these difficulties should be ironed out. Under new management, Holbrook (39) reports that the organization is
paying more attention to the markets.

The Otsego Forest Products Cooperative Association was organized in 1937 to provide service which will promote better care and increased productivity of woodlands. This organization is an operating cooperative and has invested large sums in the building of a plant for sawing and converting logs into finished lumber (50).

Mr. Cope (27) maintains that such organizations which do the processing as well as the producing of the timber have been a distinct failure even in Finland. In such agricultural cooperatives as the Orange Packers' and Growers', which was started in California, this has also been found to be the case (49).

The Tioga Woodland Owners' Cooperative, Inc. was incorporated in January 1939 to bring about the practice of better woodland management.

This cooperative is different than the other farm woodland cooperatives in that it is the first private non-subsidized woodland cooperative in the United States.

The organization furnishes a timber marker and scaler who advises farmers in making cuttings. In addition it acts as a lawful agent in securing the best possible price for the products.

The Timber Cooperative in Washburn County, Wisconsin has the primary objective of furnishing employment through
cutting of pulpwood on the county forests.

From the review of farm woodland cooperatives, it may be noted that while most of them have as their objective "to increase the incomes of the farmers and at the same time to bring about better woodland management practices", some of the associations strive to do this by providing financial assistance to the members in the early stages of management; others, namely, the Otsego Forest Products Cooperative Association, invest large sums in processing equipment; and still another was set up to furnish employment to farmers in the community.
POSSIBLE WORK AND ORGANIZATION OF FARM WOODLAND COOPERATIVES

Up to this point the writer has presented a review of cooperatives in Europe and America. In order to determine the feasibility of establishing farm woodland cooperatives in the Willamette Valley as a means of increasing the incomes of farmers and at the same time bringing about sustained yield management and better woodland management in general, it is necessary to ascertain from this review the work and proper organization of farm forestry cooperatives.

A review of the work of cooperatives will determine how such associations can help increase incomes of woodland owners and at the same time bring about better woodland management.

A study of the formation of cooperatives will determine the conditions essential to the success of cooperatives as well as the procedure in actually organizing the societies.

By contrasting the possible work and organization of farm forestry cooperatives in general to the needs and conditions of the Willamette Valley, it is possible to determine to some extent the feasibility of establishing farm woodland cooperatives in this area as a means of assisting farmers to increase their incomes and at the same time bring about sustained yield and better timber
management in general.

THE WORK OF COOPERATIVES IN GENERAL. It has been illustrated that "the cooperative is a voluntary association of persons, with equal responsibilities and rights, organized for the purpose of carrying on a joint economic enterprise in accordance with economic principles" (79). Generally speaking the purpose of the successful cooperative is to increase, directly or indirectly, the incomes of the members.

To increase the incomes of the members, four main types of cooperatives have been established. These four types include the worker's cooperative associations, cooperative purchasing associations, cooperative service associations and cooperative sales associations.

Workers' cooperative associations are organized for the purpose of pooling labor. Examples of this type of association are the farmers' threshing rings and similar groups which are organized for mutual assistance.

Cooperative purchasing associations are formed to increase the buying power of the members. By combining the purchasing power of the members with high quality products at the lowest possible prices and with essential service. The Rochdale Society of Equitable Pioneers may be cited as an example of such an organization.

Cooperative service associations are organized to
render services, such as financial aid, to the members. Among the most important service associations are the finance associations which pool the savings of the members.

Cooperative sales associations are formed to market the goods which farmers produce and are made up of three main types: local, federated, and centralized.

The purpose of the local associations is to lower the cost of handling collective lots of produce and to obtain, if possible, some price advantage by offering carload lots to terminal market points (3). The membership of the local association is made up of farmers within the immediate vicinity.

The purpose of the federated cooperative, which is composed of a number of locals, is to sell the products which the locals receive, grade, and prepare for shipment.

The centralized cooperative has its control centralized in the headquarter organizations. It operates much the same as a local, but it is regional in extent while the local is not.

To date there are no federated farm forestry cooperatives in the United States, but in other countries such as Sweden and Finland this type of cooperative association was found to be quite common.

THE WORK OF FARM FORESTRY COOPERATIVES. From the above it may be assumed that the work of farm forestry
cooperatives is to increase the incomes of the members by increasing their buying power, pooling their labor, rendering some service such as financial assistance, marketing their goods to the best advantage possible, or any combination of these methods. In addition to increasing the incomes of the members, farm woodland cooperatives usually have another objective: to bring about sustained yield and better woodland management in general.

The purpose of woodland management is to insure continued productivity and maximum returns from acreage over a period of years. One of the aims of woodland cooperatives is to help bring this about (38).

There are four main reasons why farmers do not practice good woodland management.

First, they often lack the desire to manage their woodlands properly. The reason why farmers and agriculturists do not have the desire to manage their woodlands is chiefly because they do not readily see where it will be profitable for them to do so (10).

Second, farmers often lack knowledge as to how they can properly manage their woodlands. As ordinarily handled the yield is not an annual one (35).

Third, they often have enough material to attract a buyer only if they sell everything in their woodlots (7).

In order to bring about better woodland management
practices, the farm woodland cooperative should in some manner interest woodland owners in proper management, help them get the needed equipment, and educate them to the proper management practices.

The opportunities for farm forestry cooperatives to increase the incomes of farmers from their woodlands and at the same time bring about better woodland management practices lie in four fields; namely, growing, harvesting, processing and marketing timber.

Growing. The growing of a forest crop means, in this case, the care given trees from the time that they reproduce until they reach the cutting age. Growing may be classified under the headings of reproduction, protection and improvement cuttings.

Reproduction of the forest stand must be adequate in number, well established and distributed over the forested area if a large amount of good quality products are to be produced. There are two types of reproduction, artificial and natural.

Farm woodland cooperatives may help farmers to secure artificial reproduction on areas where natural reproduction is inadequate. By cooperating with the state and federal nurseries, cooperative associations may assist farmers to obtain planting stock of desirable species. By pooling labor, farm forestry cooperatives might help in the actual
seeding or planting of the trees. In France it was noted that the cooperative provided for reforestation.

Through the advice and assistance of a technically trained forester, the cooperative may educate the farmers to the proper methods of planting as well as to the methods of securing natural reproduction.

By having a phrase in the marketing agreement which states that the farmer agrees to manage his woodland in a manner which will assure adequate regeneration and continuous growth, the cooperative can encourage proper reproduction on farm woodlands.

If the best quality and largest quantity of woodland products are to be produced, it is essential that they be protected. Protection of farm woodlands includes fire protection, protection from grazing animals and protection from insects and fungi (66).

An objective given for fire protection is that "suppression costs plus presuppression costs plus damage costs be kept at a minimum" (68), but the writer feels that this objective could also be extended to the other phases of protection.

If the above objective is to be reached, a certain amount of fire protection will have to be practiced. Although on farm woodlands, the fire protection problem is not generally considered as important as on larger
areas, the organization of a fire protection unit such as a cooperative might bring about, could be highly desirable. For all general purposes fire protection may be classified under four headings: prevention, presuppression, suppression and administration (68). To prevent fires, prepare to put out fires, and to direct the work along these lines, cooperative action may be of importance.

Cooperatives may help prevent fires through education and regulation. Through the distribution of information to the farmers in regard to the harm and danger of fire, a cooperative may assist in keeping damage and costs at a minimum. Cooperatives may also help by making it compulsory that the members adhere to certain fire protection regulations.

If woodland owners are to be prepared to put out fires, it is essential that they have proper equipment. Through cooperative buying, it is possible for woodland owners to acquire proper equipment at a lower price than if each piece is purchased separately. Also, through a cooperative, it will be possible to organize the equipment so that it will be most effective.

Cooperatives may help farmers prepare to control fires through a well organized and synchronized fire protection organization. Through a cooperative, farmers may hire men trained in the control of fire who will be
valuable as leaders and foremen in the fire fighting organization.

Grazing or pasturing is next to fire in causing damage to woodlands. Of course, the extent of the damage done depends on the amount that the woodlands are grazed, but in heavily pastured areas, practically no young tree growth can get started and at best it will only grow in scrubby patches (66). Usually woodlands are of little value as a source of food and grazing lands are of little value as a source of woodland products (34).

Insects and fungi cause damage to trees from the time the trees are planted until they are mature and overmature. Although the damage caused cannot be readily measured, some authors contribute more loss to these two agencies than to fire. In order to keep costs and damage at a minimum, the control of insects and fungi will have to receive considerable attention.

Through principles similar to those explained for fire protection, cooperatives may also help keep the damage from grazing animals and insects and fungi at a minimum.

In order that a farm woodland may produce a maximum quantity of valuable products, it should be kept in the best possible condition. The ideal farm woodland is one in which the soil is completely utilized with stands of
well formed, thrifty, and valuable species (34).

To develop the ideal stand, improvement cuttings are made. These include those cuttings which are made in different aged stands for the betterment of the trees which are left standing. "Weed" trees, which are unwanted trees of little commercial value, should usually be removed in seedling or small sapling stands (66). Thinnings may be necessary in stands fifteen to twenty years old. In older stands, decadent and defective trees should be removed. Poorly formed and older trees which are overtopping younger trees should be removed. Farm woodland cooperatives can help improve the condition of the woodlands through education and regulation similar to that explained under the other phases of forest growing. A trained forester hired by the cooperative may illustrate to the members how the cutting of the poorer trees will improve the stand. He can show farmers that they should use the poorer trees on the farm and sell the ones which will bring top prices. Technically trained foresters can help educate the farmer so that he may learn what the most valuable species are and when they should be sold.

By including a phrase in the marketing agreement stating that the members must agree to cut the poorer trees first, cooperatives can aid in bringing about the improvement of the woodlands.
Harvesting. In order to manage the farm woods in a manner which will insure continued productivity and maximum return from acreage over a period of years, it is essential that they be cut properly. When harvesting his timber crop, the farmer or woodland owner should strive to cut trees for which there is a good market; at the same time he should try to improve the condition of his woodland.

To assist farmers to harvest their woodlands properly, farm forestry cooperatives may provide for equipment and financial assistance. It has been illustrated how such woodland cooperatives as the Forest Products Association help their members finance their woods operations by arranging for financial assistance.

By establishing farm woodland demonstration plots as well as by providing the services of a technically trained forester, farm forestry cooperatives may educate the members to the proper methods of cutting (27).

In order to see that farm woodlands are cut according to sound woodland management practices, a farm forestry cooperative may make it obligatory that members agree to have their timber marked by a professional forester.

Processing. To increase the incomes of farmers from farm woodland products and at the same time bring about better woodland management in general, processing done by
the cooperative may have merit. In this case, processing means the conversion of logs into lumber and other finished products.

It is necessary to have good quality products for sale if farmers are going to receive a good price for their products. While it is not practicable for most owners, individually, to attempt processing, a cooperative representing a number of farmers or woodland owners could conceivably do it to advantage. For the Otsego Woodland Products Cooperative at Cooperstown, New York, processing is one of its chief purposes.

In this manner more work is created for the farmer and the hired help during off-seasons and greater amount of income is expected from the woodlands. The main purpose of the farm woodland cooperative in Washburn County, Wisconsin is to provide employment.

It is also possible that certain processors might agree to contract with a cooperative to handle its output at lower rates than they would charge individual producers. Such reductions may be based on the fact that the mill owner gets a larger amount of work with less effort on his part to get a constant and ample supply (50).

To help in the processing phase of forestry, cooperatives may be a means of getting needed equipment and finances. Through assistance of trained foresters, the
cooperative may also help by providing information concerning the best use for different species as well as the best methods of processing.

Marketing. To insure the maximum income from forest products, marketing must be done efficiently. Because it takes from fifty to one hundred and fifty years to grow a crop of trees, woodland owners should spend considerable time and effort in the marketing of their woodland products. To help woodland owners sell their products at the best advantage is the major objective of most farm woodland cooperatives (27).

Farmers and small woodland owners are at a disadvantage when it comes to marketing their products for a number of reasons. These difficulties and their possible amelioration by farm woodland cooperatives will now be discussed.

First, woodland owners commonly do not have enough equipment to handle their products as they should. They may not have trucks on which to haul their material or they may lack other essential equipment (48).

To help farmers market their products at best advantage, farm woodland cooperatives may make it feasible for them to obtain the needed equipment. In many parts of the United States, farming equipment is used cooperatively by farmers (81). It is not unreasonable to believe that a woodland cooperative could purchase such equipment as
trucks and perhaps save some of the money which is now going to the middleman.

Second, farmers may lack finances. They may not have enough finances to proceed with their harvesting. They usually do not have enough finances to advertise, look for markets or to do other things which in the long run might tend to bring better prices for their products (56).

Cooperatives may also make it practicable for farmers to get needed finances so that they can proceed with their work. It has been pointed out that some of the woodland cooperatives have as one of their major objectives, the financing of the woodland workers during the early period of management. In addition, cooperatives may make it feasible for farmers to advertise and look for markets (41). This fact has been well illustrated by the case of the California Fruit Growers' Exchange.

Third, most farmers are unfamiliar with forestry and the marketing of timber. Usually they do not know how much timber they have and they are not up to date on the market demand and prices. Therefore, they are at a considerable disadvantage; their timber is often sold for a lump sum at less than the true value and when this is the case, the land is left in poor condition (7).

Through their educational program, farm woodland cooperatives may assist farmers to learn how to estimate the
value of their timber, what different species can best be used for, what the market prices are, and when it is most profitable to sell.

In determining the amount and quality of the timber, the cooperative may be successful because they can hire a trained forester who should be able to estimate the timber and find out which species are the most valuable.

To find markets for the timber the cooperative may often advertise and in other ways find markets. In some instances cooperatives may even increase demand for a product by advertising (41). The Forest Products Association, Inc. sends out an attractive folder advertising Christmas trees which are furnished to the cooperative by the members (46).

To evaluate the stumpage in the light of various economic factors will involve a study of marketing conditions and the judgment of experts. It is known that a cooperative can study the demand and regulate the supply so that there is a minimum of over-production. In this way markets may become more stabilized.

Fourth, the middleman often gets an extra large margin of profit (50).

If a cooperative were organized in an area where the middleman is getting an extra large margin of the profit, the margin of profit may largely revert back to the owners.
Fifth, they often do not have enough material (1) to attract buyers, (2) to standardize their products and thus get a top price for the best material and a good price for the rest which they sell, (3) to offer a variety, (4) to furnish a continuous supply or (5) to have a bargaining advantage.

By selling through a central agency a large quantity of goods can be supplied. It is usually necessary to have a large enough quantity to interest a buyer in order to market the farm woodland products of the farmers to the best advantage (50). An individual farmer may not have enough material to attract a buyer, yet a cooperative can, by acquiring from a number of farmers, gather enough products to interest several buyers, maintain a continuous supply and deal in a full line of merchandise, all of which are impossible for a single farmer.

Sometimes in order to sell products at the best advantage, a cooperative is in a position to use its bargaining power to bring higher prices for farm woodland products. As was shown to be the case for agricultural cooperatives, the cooperative that receives a large percentage of a crop and is supported by excellent market information and a national distributing system commands a position that enables it to obtain the most favorable selling price (3).

In order that there will be a maximum saving to the
members, it is always necessary to obtain the most favorable transportation rates. As has been pointed out previously, transportation rates can be greatly reduced by large quantities, where a single farmer may not have enough to make a carload or where the rate decreases as quantity increases. The advantage which the millman has of being able to dispose of the various grades in carlots would accrue to the cooperative.

In most instances it seems likely that the benefit accruing from good information regarding markets would in the long run considerably outweigh that which might be obtained from any bargaining advantage a cooperative on the Pacific Coast might have where there is so much other timber available at the present time (50).
THE ORGANIZATION OF FARM WOODLAND COOPERATIVES

Before the organization of a farm woodland cooperative is undertaken, it is necessary to determine in advance its probable success.

SURVEY. To determine the probable success of a farm woodland cooperative, a survey of the items which have contributed to the success of other agricultural cooperatives should be made. These items together with complete information relating to them should be studied thoroughly, since many cooperative associations, like businesses, have failed because too little thought was given to the details of pre-organization (67). The survey should include the need for the association, the potential membership, volume of business, market outlets, finances, transportation, and management.

Need. It was found that all successful cooperatives were organized because there was a definite economic need for them. Those cooperatives which were established where it was impossible for them to perform the work any more efficiently than it was being performed by existing associations failed.

Then, one of the first questions may be "Is there a definite need for a farm forestry cooperative in the area under consideration?".
The economic need can best be discovered by analyzing the character of the local marketing service to determine whether or not the service, competition and prices are satisfactory under the present marketing system. It should be determined whether or not the improvement sought will be commensurate with the risk, financial investment and time and effort of the farmers (3).

**Potential Members.** In order to determine whether or not a woodland cooperative has any possibility of succeeding in an area, it would be well to make a study of the relationships between the potential members. Though human relationships are an elusive factor, it is nevertheless of utmost importance that this be a consideration in the forming of a cooperative (3). It can be noted that in some communities farmers are naturally more cooperative than in others. Some districts are noted for personal feuds among farmers and it is likely that in these areas cooperatives would not be successful.

Previously it has been pointed out that cooperatives were most successful in communities where people are of the same race, know each other quite well, and have a cooperative attitude toward one another.

The successful farm forestry cooperative usually has members with common interests. As was the case in the Orange Packers' and Growers' Association, when groups
of members have different objectives and interests, the cooperative is not successful.

If the cooperative is to be successful, it should be made up of members who have a long time interest in the association. It is not likely that the cooperative will succeed in an area where the producers are renters or have a short time lease and therefore are likely to care little about the success of the organization (3).

To be successful, cooperatives usually must be composed of members who are not isolated from one another. A study of cooperatives indicates that they are less successful in areas which are sparsely settled.

Prior to the formation of a cooperative, a study should be made to determine the possibility of financing the organizations. If the farmers are able to finance the cooperative themselves, it would be more desirable since it has been found that people take a more active interest in a business which they have financed.

To make a cooperative feasible, there must be enough interested members to support it. One hundred members is usually considered a satisfactory number to form a cooperative (75), but several farm woodland cooperatives have been started with fewer members. At least 50 percent of the land owners in the community should be interested (27).
By letters and personal contacts, the extension forester or anyone else interested informing a cooperative can "feel out" the farmers to discover their attitude.

**Volume of Business.** Cooperatives must be supported by a sufficient volume of business to be successful. A cooperative which was organized to market forest products probably would not receive support unless the operating expenses were below ten percent of the gross sales (50).

To maintain an organization and a manager on a full time basis, it would probably cost a minimum of $5,000. If this were true, it would probably be unwise to organize a cooperative where the yearly income from forest products is less than $50,000. The Forest Products Associations does from $50,000 to $80,000 worth of business each year (46).

**The Market Outlet.** Before a cooperative is organized, a study of the market outlets should be made to see whether or not there is an adequate demand for the farm forestry products that can be produced in the area (67). The number of mills accessible to the area, the estimated consumption of products, and the reaction of the mill owners to the cooperative idea should be studied. There should be at least one or more mills in the area to furnish an outlet for the products (27).

**Finances.** If the cooperative is to operate, it is necessary that it be financed. Therefore, the survey should
consider the possibilities of getting loans as well as the financial status of the potential members. The possibilities of obtaining a loan from some bank or other source should also be investigated.

For most farmers' cooperatives, the producers should plan to put up initially at least 40% of the cost of facilities (67). The amount of money necessary to establish a cooperative will vary considerably depending on the purpose and location of the organization. The Otsego Forest Products Cooperative Associations is capitalized at $75,000, but that covers the cost of a processing plant (63). The Forest Products Association Inc. was started on a $100,000 loan; however, one of its major objectives was to finance the woodland owners in their woods work (27).

Transportation. It has been illustrated that cooperatives are most successful in areas where the transportation systems, over which the products are transported, are most complete and effective.

Because most forest products are large in proportion to their weight, transportation costs are of great importance. When value is low in proportion to the size and weight of articles, transportation charges on relatively short hauls may offset the price paid at the mill.

In 1938 a study was made in Carrol County, New Hampshire to determine trucking costs. While trucking costs in
the Willamette Valley may be entirely different from those in New Hampshire, results of the study are presented here to give an idea of the proportional transportation charges for hauls of various distances (50).

<table>
<thead>
<tr>
<th>Distance Trucked Miles</th>
<th>Charge per M bd. ft. Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 2</td>
<td>1.00 - 1.50</td>
</tr>
<tr>
<td>2 - 5</td>
<td>1.50 - 2.00</td>
</tr>
<tr>
<td>6 - 10</td>
<td>2.00 - 2.75</td>
</tr>
<tr>
<td>Over 10</td>
<td>2.50 &amp; up</td>
</tr>
</tbody>
</table>

Manager. It has been illustrated that the success or failure of a cooperative may depend upon its leadership; therefore, it may be well to consider the possibility of hiring a competent manager before the cooperative is set up. Such a manager should have both a knowledge of forestry and an understanding of business and cooperative principles. In addition, the manager should be a man who is well known and well liked in the community. It has been proved that in most instances farmers will work better with a neighbor farmer whom they know and respect than they will with an outsider whom they do not know.
EDUCATION. If the survey indicates that a cooperative has no opportunity to succeed, the whole idea should be dropped. Should the survey indicate that the opportunities for success are good, the leaders and potential members should be educated in the principles of cooperatives before the conduct of business affairs are put in their hands.

In order that the farmers and woodland owners will be prepared to assume the duties and responsibilities of directing their own business, they should be educated in the principles of the cooperative as one of the primary steps in formation of the society.

To educate the potential members of a cooperative, newspaper articles, radio programs, exhibits, and talks with groups and individuals may be utilized. The teaching of cooperative principles through well informed leaders should take place well in advance of actually organizing the cooperative.

Though the educational program may appear to be taking up valuable time, it is of utmost importance to the later success of the cooperative that the foundation of knowledge be a well laid one. Many cooperatives have failed simply because the members expected too much of cooperation, not having been fully informed as to the actual possibilities or limitations of such a society.
ORGANIZING. After the survey and the educational foundation has been laid, it is usually well to work out the plan for organization in detail before a general meeting of all the woodland owners is called, since a majority of the potential members will be more interested in having a concrete plan presented to them than in trying to plan for the organization. Small discussion groups have proved much more valuable in laying a foundation for action by the entire group (72).

Committees should be chosen to consider (1) organization: constitution, by-laws, and incorporation, (2) membership and subscriptions, (3) locations and facilities, and (4) education. Committee members should be well informed concerning conditions in the area where the cooperative is to be set up and in the operations of a cooperative. Several joint meetings of all the committees should be held to perfect the final plans for organization.

At the general meeting reports should be made by the committees and by those who conducted the survey, if it were a State or Federal organization, and open discussion should be held. The purpose of the meeting should be fully explained to the members. It is important also, that the members be allowed to ask questions.

A chairman and secretary may be selected at the general meeting. Temporary by-laws may be adopted and the
state laws governing cooperative associations may be read or made available to the members present.

Plans should be made to contact other members who may be interested. A farm-to-farm canvas may be made by volunteers. Care should be exercised that the facts are presented to all prospective members and that they do not expect too much of the organization because of rash promises on the part of those who contacted them. It is important that they regard the cooperative as a business institution, understanding fully its potentialities and limitations (67).

The legal documents of the society should be drawn up with extreme care, under the guidance of competent legal counsel, experienced in the organization and operation of cooperatives. The cooperative may receive assistance from State and Federal agencies. The Extension Service, the Spokane Bank for Cooperatives, the Cooperative Research and Service Division of the Farm Credit Administration are all equipped and willing to aid in the formation of a cooperative (70). The Forest Service and the Soil Conservation Service have been instrumental in the formation of farm woodland cooperatives in other areas.
POSSIBLE WORK AND ORGANIZATION OF FARM FORESTRY COOPERATIVES IN THE WILLAMETTE VALLEY

Having studied the potential work and organization of farm woodland cooperatives in general, it is now possible to consider the probable work and organization of farm woodland cooperatives in the Willamette Valley. After determining this, it will be possible to determine the feasibility of establishing such organizations in this area.

GENERAL DESCRIPTION OF THE WILLAMETTE VALLEY. Before discussing the probable work and organization of woodland cooperatives in the Willamette Valley, a brief general description of the area may be justified.

This drainage basin extends southward from Portland about 230 miles and has an average width of approximately 85 miles (58). It is bound on the east by the Cascade Mountains, on the west by the Coast Range, and on the south by the Calapooyia Mountains (61).

From the summit of the mountain ranges, the slopes are steep, but gradually they merge into wide alluvial valleys and gently rolling hills. The area is drained by the Willamette River which flows into the Columbia River north of Portland. Important rivers feeding the Willamette River are the McKenzie, Santiam, Molalla, Clackamas, and Calapooyia from the east; the Coast Fork and Middle Fork from the south; and the Long Tom, Luckimule, Yamhill
Tualatin and Rickerail from the west (61).

The elevation varies from near sea level at Portland to about 4000 feet in the mountains. The average annual rainfall is about 47 inches. The growing season is long and trees as well as agricultural crops growing season is long and trees as well as agricultural crops grow rapidly throughout the area.

Of the total farm area, 58.6% is classified as suitable only for the growing of trees (59).

THE POSSIBLE WORK OF WOODLAND COOPERATIVES IN THE VALLEY. It has been found that the principal work of farm forestry cooperatives in general is to increase the income of farmers and to bring about sustained yield management through cooperative purchasing, cooperative selling, cooperative financing, or the pooling of labor. Also, it has been illustrated that cooperative opportunities to assist the farmers to increase their incomes and bring about sustained yield and better timber management in general lie in four fields: growing, harvesting, processing, and marketing woodland products.

By studying conditions in the Willamette Valley, the possibilities of farm forestry cooperatives in this section may be determined.

Because there is a very limited amount of reference material available in regard to farm woodland products in
the Willamette Valley (77), it was impossible for the writer to determine the answers to all the questions which should be considered before a cooperative is organized. Necessarily, the writer has based some conclusions on assumptions in cases where material was insufficient or lacking.

Toward the growing and harvesting of woodland products, farmers in the Willamette Valley have had attitudes similar to those of a large number of farmers throughout the United States. The average farmer regards his woodland either as a stock pasture or fuel wood source and harvests the wood crop without concern for management and sustained yield (58). Not only do most farmers lack the desire to manage the woods properly; they often lack equipment and necessary finances to put their farm woodlands on a sustained yield basis (58).

In some sections the fire protection problem has been aggravated because fire is used as a tool of range management. However, the protection of timber lands in the state of Oregon is already being handled cooperatively. The State Forester is responsible for the protection of private and state owned lands and accomplishes his objectives through thirteen private protective associations which contribute to protection on a basis of actual costs, which usually vary from two to five cents per acre per year for
all timber land owners. Work is done under cooperative agreement. Costs for patrol of the lands of non-members are collected through tax roll assessments turned over to the association for services rendered.

To find the possibility of processing woodland products cooperatively in the Willamette Valley, a study of present processing mills should be made. Table 1 indicates that there were 283 active sawmills in the Willamette Valley in 1934 (58). Because there are quite a large number of mills in this section, competitive prices should prevail. From all indications, the present market is fairly good for sawlogs and unfinished material (58).

This would appear to indicate that a cooperative in the Willamette Valley should not invest large sums of money in plant and equipment since probably there are ample mills in the Valley already. However, most of the mills are concentrated in the northern part of the state where timber is being liquidated rapidly, so possibly a processing mill may be feasible in certain areas of the state where mills are a long distance apart.

Woodland owners in the Willamette Valley are at a disadvantage when it comes to marketing woodland products. Not only do they lack equipment with which to haul their logs, but in addition, they lack the finances with which to market to the best advantage. Although no study has been
made to find out whether trucking rates in the Valley are high, it is possible that farmers are losing a considerable amount of their farm woodland income from this standpoint. These facts coupled with the fact that many farmers lack a knowledge of forestry and proper forest practices, indicate the possible work of cooperatives in the marketing field.

The facts presented above are very incomplete and before any cooperative is organized a complete study should be made. However, it appears that to assist the farmers to increase their incomes from farm woodlands and at the same time to bring about sustained yield and better timber management in general, a cooperative in the Willamette Valley would find its greatest opportunities in the fields of woodland management and the marketing of woodland products.

It has been illustrated how farm forestry cooperatives may assist farmers to increase their incomes and to practice better woodland management by giving them needed financial assistance, helping them get needed equipment, pooling labor and equipment and thus forming a well organized protection force, giving them technical advice through trained foresters, and by making it obligatory that all woodland cooperative members agree to practice proper woodland management. To avoid repetition, it may be said that cooperatives in the Willamette Valley may help improve the
growing and harvesting of woodland products by the same methods which have been illustrated for farm woodland cooperatives in general in the preceding chapter.

To help farmers of the Valley market their products at the best advantage, farm woodland cooperatives may make it feasible for them to obtain needed equipment and financial assistance. Through trained foresters, cooperatives may make it possible for farmers in the Willamette Valley to receive technical information which is necessary in order to market products to the best advantage and which may be impossible for them to get otherwise.

Cooperatives may also help farmers in the Willamette Valley by having trained foresters estimate the volume and value of their timber and possibly by marking the trees to be cut.

By studying markets, cooperatives may help farmers market their timber to the best advantage. By combining the products of several woodland owners, a cooperative in this area could gather enough material (1) to attract buyers, (2) to standardize products and thus get a top price for them, and (3) to offer a variety or "full line" and to furnish a continuous supply.

From the standpoint of obtaining higher prices for forest products because of their bargaining advantage, cooperatives in the Willamette Valley may not be as
successful as in other sections of the United States since in this area, only 11% of the total forest land is in farm woodlands and only 5% of all the raw forest products come from farm woodlands (58).

**ORGANIZATION.** Before a farm woodland cooperative is actually established in the Willamette Valley, a survey should be made to determine its probable success. This survey should consider: the need for the organization, the potential membership, volume of business, market outlets, finances, transportation, and potential manager. Such a study should be made by some organization with the necessary equipment and finances.

The writer has collected some data on these items but was unable to make a complete survey of the situation because of the scarcity of reference material. Though somewhat insufficient, this data is presented to indicate the probable success of farm woodland cooperatives in the Willamette Valley.

In considering the need for a cooperative in this area, it was found that farmers have cut their timber without regard to woodland management or sustained yield. If many communities are to survive, it is evident that sustained yield management is necessary. Financial conditions of many of the private owners add to the difficulty of establishing sustained yield (58).
Those facts indicate that there is need for some type of organization which can assist farmers to practice sustained yield. It has been pointed out that the Forest Products Association, Inc. at Groveton, New Hampshire has as one of its major purposes furnishing financial assistance to the members in addition to the marketing of their woodland products.

A study of potential membership illustrated that since agricultural cooperatives in the Willamette Valley have been particularly successful, the farmers are likely to have a cooperative attitude.

The farm population is 98% native white stock and highly literate; less than 2% are of Negro or other races, and the remainder are foreign born white. Illiteracy among the whites is .8% for the Valley as a whole. Twenty-six percent of the Valley's population is dependent on timber and allied industries for a livelihood.

For a farming area, the Willamette Valley is well populated and farmers are fairly close to one another. Because of the well developed roads and communication systems, few farms are isolated.

These facts seem to indicate that there should be a sufficient number of members to form a cooperative. The fact has been brought out before that similarity of race and nationality contribute much toward forming a successful
cooperative. However, before a cooperative is set up in this area a farm-to-farm canvas or intensive survey should be conducted, covering these facts plus the stability and financial status of the members.

There is very little information in regard to the marketing of farm woodland products in the Willamette Valley. However, the total amount of farm woodland products cut and sold in Oregon in 1934 totaled $2,233,000 and ranked sixth among crops in the state (Table 2). In 1929 the total income was $3,908,087 which amounted to $177 per farm. (Table 3)

The above information together with facts that 58.8% of the farm land in the Willamette Valley is suitable only for the growing of forest products (58) and that farm woodlands made up 11% of the forested area appear to indicate that there would be sufficient volume of business in this section to support a cooperative.

Since there are 283 mills in the Valley, it appears that there should be a good competitive market for farm woodland products (58).

The transportation system in the Valley may be classified as water, roads and railroads. Two U.S. highways, 99E and 99W which come together at Junction City, pass through the area from Portland. And extending east and west from these two highways are numerous secondary roads
in good condition, which make most farm woodlands accessible.

The principal water transportation is the Willamette River with some of its tributaries being usable for a short distance. Water transportation is much cheaper than by rail or road and it is estimated that channel development of the River which is being contemplated, will reduce the freight approximately 50¢ to $1.00 per M bd. ft. (58).

Railroads in the area consist of the Southern Pacific and various auxiliary logging railroads.

It has been illustrated that the transportation system together with its proximity to the woodlands may be of prime importance to the success or failure of a cooperative. The well developed transportation system in the Willamette Valley is important because it provides means of shipping woodland products to distant markets.

PROBABLE DIFFICULTIES. In the Willamette Valley where farm woodlands make up only 11% of the forested area and 5% of the timber sold, farm woodland cooperatives may meet serious opposition as have other agricultural cooperatives.

To meet possible opposition it is doubly necessary that the potential managers and members be thoroughly educated to cooperative principles. They must realize that loyalty of the members to the cooperative is of utmost importance, often meaning the success or failure of the
After the survey is completed, the evidence should be weighed to determine what possibilities the woodland cooperative has of succeeding.

SUMMARY. From the foregoing study, it appears that opportunities for farm woodland cooperatives in the Willamette Valley would lie in the fields of growing, harvesting, and marketing timber, but that the opportunities for establishing processing mills would not be great as in other sections of the United States where there was not so much virgin timber available.

It seems that through education, assistance and regulation farm forestry cooperatives in the Willamette Valley may help farmers to increase their incomes and to bring about better woodland management practices in general. Cooperatives may help farmers to market woodland products by making it possible for them to get needed education, equipment, finances and also by combining the products of several owners which enables them to offer enough material to attract buyers, standardize products, offer a "full line" and furnish a continuous supply as well as saving some of the profit which is now going to the middleman.

From the material the writer has collected, it appears that there is a need for a cooperative in the Willamette Valley and that this area would be a favorable location for
such associations from the standpoint of members, transportation, volume of business and market outlets. However, the cooperative may meet serious opposition from owners of large areas of timber throughout the Valley.
SUMMARY AND CONCLUSIONS

Principles which govern most of the successful cooperatives are much the same as those which were developed by the Rochdale Pioneers, a group of weavers in England, who organized an association in 1844 for the purpose of increasing their buying power. These principals are:

1. Membership open to all.
2. Democratic control: one vote only to each member.
3. Patronage dividends paid.
4. Interest on capital limited.
5. Regular funds set aside for education.
6. Business for cash only.
7. Sales made at prevailing market prices.

Factors which were found to promote the success of cooperatives are:

1. A definite need and purpose for the organization.
2. Adherence to above cooperative principles.
3. Loyal membership which usually has financed the cooperative, cooperative attitude among members, sufficient number to support cooperative, stability of population, similarity of race and nationality.
4. Efficient management.
5. Volume of business and market outlets sufficient to support the overhead.
6. Transportation system usually well organized.
The work of cooperatives was found to be included in four types of organizations:
1. Workers' cooperatives.
2. Cooperative purchasing associations.
3. Cooperative service associations.
4. Cooperative sales associations.
The work of farm woodland cooperatives is:
1. to increase the incomes of farmers and
2. to bring about sustained yield management and better woodland management in general by the work of any one or any combination of the above types of organizations. This work lies in the fields of: (1) growing, (2) harvesting, (3) processing, and (4) marketing timber.

A cooperative may assist farmers in any of these fields by:
1. helping them to get needed equipment and finances.
2. educating them to proper forestry methods through furnishing the services of a technically trained forester.
3. gathering enough products from different farms to make it feasible for farmers to sell smaller amounts than are now possible.
4. making it obligatory that they agree to practice proper woodland management methods if they are to be members of the associations.
A study of the Willamette Valley indicates that opportunities for farm forestry cooperatives are present in the fields of management and marketing because:

1. there appears to be a definite need for improved management and marketing.

2. the amount received from products cut from Oregon farms in 1934 was $2,700,000 and in 1929 was $3,908,000 or $177 per farm, and that 56.8% of the farm land is classified as forest land which indicates that there would be a sufficient volume of business to support a cooperative. (58)

3. there are 283 mills operating in the Valley which should provide a good competitive market for woodland products (58).

4. the potential membership is 88% native white and highly literate (58); they appear to be cooperative in attitude since other cooperatives have been successful in this area.

5. transportation system, including road, rail, road and river, is well synchronized with the market outlets.

In the field of processing, cooperatives in the Willamette Valley may not be successful because there are ample mills in the area already.
Although conditions appear to be favorable for the organization of farm woodland cooperatives in the Willamette Valley, their success will depend largely on:

1. the education of capable leaders in cooperative principles and forest management

2. the loyalty of members and their education to cooperative principles and benefits to be derived from farm woodland cooperatives.

3. the ability of farmers to meet possible opposition from outside forces.

Before a cooperative is set up in the Willamette Valley a complete survey should be made to determine its probable success. The groundwork or education of leaders and members should be thorough and well in advance of actual organization. Surveys may well be conducted by capable organizations with the necessary equipment and finances.
Table 1.

LUMBER PRODUCED BY COUNTIES AND SPECIES IN THE WILLAMETTE VALLEY (58)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Benton</td>
<td>30</td>
<td>63,572</td>
<td>62,920</td>
<td>21</td>
<td>488</td>
<td>143</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clackamas</td>
<td>59</td>
<td>64,457</td>
<td>54,417</td>
<td>2</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9,997</td>
<td>28,754</td>
<td>(M.C.A.)</td>
<td></td>
</tr>
<tr>
<td>Lane</td>
<td>63</td>
<td>232,925</td>
<td>224,661</td>
<td>13,378</td>
<td>1,571</td>
<td>1,910</td>
<td>3,028</td>
<td>432</td>
<td></td>
<td>17,564</td>
<td>1,497</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linn</td>
<td>33</td>
<td>44,523</td>
<td>43,494</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,029</td>
<td>(M.C.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marion</td>
<td>16</td>
<td>85,370</td>
<td>81,314</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,546</td>
<td>3,072</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multnomah</td>
<td>20</td>
<td>352,524</td>
<td>329,928</td>
<td>13,378</td>
<td>600</td>
<td>1,560</td>
<td></td>
<td></td>
<td></td>
<td>7,058</td>
<td>100,519</td>
<td>7,073</td>
<td>(A.M.C.)</td>
</tr>
<tr>
<td>Polk</td>
<td>14</td>
<td>64,958</td>
<td>54,502</td>
<td></td>
<td>10,318</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>136</td>
<td>1,399</td>
<td></td>
<td>(A)</td>
</tr>
<tr>
<td>Washington</td>
<td>27</td>
<td>75,941</td>
<td>75,431</td>
<td></td>
<td>115</td>
<td>382</td>
<td>5</td>
<td>5</td>
<td></td>
<td>27,052</td>
<td></td>
<td></td>
<td>(M)</td>
</tr>
<tr>
<td>Yamhill</td>
<td>21</td>
<td>47,076</td>
<td>46,709</td>
<td></td>
<td>21</td>
<td>346</td>
<td></td>
<td></td>
<td></td>
<td>6,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>263</td>
<td>1,931,348</td>
<td>973,326</td>
<td>26,755</td>
<td>2,372</td>
<td>1,910</td>
<td>15,776</td>
<td>962</td>
<td>18,327</td>
<td>179,435</td>
<td>13,041</td>
<td></td>
</tr>
</tbody>
</table>

D.F. - Douglas Fir  
Sp. - Spruce  
W.R.C. - Western Red Cedar  
I.C. - Incense Cedar  
W.H. - Western Hemlock  
W.F. - White Fir  
Hd.Wd. - Hardwood (Maple, Alder and Cottonwood)
### Table 2.

**FARM LAND USE**

(Oregon)

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Land (all classes)</td>
<td>4,197,454</td>
</tr>
<tr>
<td>Pasture Land</td>
<td></td>
</tr>
<tr>
<td>Plowable and &quot;other&quot;</td>
<td>9,260,262</td>
</tr>
<tr>
<td>Woodland pastured (see woodland)</td>
<td></td>
</tr>
<tr>
<td>Woodland (all classes)</td>
<td>3,349,944</td>
</tr>
<tr>
<td>Woodland pastured</td>
<td>2,778,314</td>
</tr>
<tr>
<td>Woodland not pastured</td>
<td>571,630</td>
</tr>
<tr>
<td>Other Land</td>
<td>549,889</td>
</tr>
<tr>
<td>Total farm land</td>
<td>17,357,549</td>
</tr>
</tbody>
</table>

**CASH INCOME FROM LEADING FARM PRODUCTS**

<table>
<thead>
<tr>
<th>Product</th>
<th>Value 1934</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest Products cut and sold, Year 1934</td>
<td>$2,233,000</td>
<td>Sixth</td>
</tr>
<tr>
<td>Fruits and nuts</td>
<td>$9,440,000</td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>7,490,000</td>
<td></td>
</tr>
<tr>
<td>Truck Crops</td>
<td>3,395,000</td>
<td></td>
</tr>
<tr>
<td>Hay</td>
<td>2,857,000</td>
<td></td>
</tr>
<tr>
<td>Potatoes</td>
<td>2,323,000</td>
<td></td>
</tr>
<tr>
<td>Forest Products</td>
<td>2,233,000</td>
<td></td>
</tr>
</tbody>
</table>

Value of all Forest Products, used or sold, Year 1934: $2,700,000

* Census, 1935
** Estimated by Bu. Agr. Econ.

U.S. Dept. of Agric. Forest Service
Division of Private Forestry
### Table 3.

**FOREST PRODUCTS CUT ON OREGON FARMS IN 1929**

<table>
<thead>
<tr>
<th>Product</th>
<th>Farms</th>
<th>Number</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firewood</td>
<td>21,395</td>
<td>475,523 cords</td>
<td>$2,045,790</td>
</tr>
<tr>
<td>Fence Posts</td>
<td>3,780</td>
<td>910,960 posts</td>
<td>113,477</td>
</tr>
<tr>
<td>Pulpwood</td>
<td>557</td>
<td>32,271 cords</td>
<td>225,897</td>
</tr>
<tr>
<td>Saw Logs and Veneer logs</td>
<td>1,046</td>
<td>205,087 M bd. ft.</td>
<td>1,221,575</td>
</tr>
<tr>
<td>Railroad ties</td>
<td>49</td>
<td>90,985</td>
<td>61,557</td>
</tr>
<tr>
<td>Piles &amp; piling</td>
<td>475</td>
<td>88,823</td>
<td>252,791</td>
</tr>
</tbody>
</table>

22,093 or 40% of all farms $3,908,087

Average value per farm reporting $177.

U.S. Census of Agriculture, 1930


26. Fippin, Elmer O. First principles of cooperation in buying and selling in agriculture. Richmond, Garret and Massie, Inc. 1934.
27. Forest Service and Extension Service. Farm forest cooperatives help to solve timber growing and marketing problems. Washington, Gov't. print. off. 1939.


40. Howe, Frederic C. Denmark, the cooperative way. New York, Coward-McCann, Inc. 1936.


45. Lockard, C.R. The first season's operations of the Otsego forest products cooperative association, Inc. address delivered at the third session of Northeastern forest research council. New Haven, Connecticut December 1, 1938.

46. Locke, J.P. Letter to writer giving information about Forest Products Association, Inc. and inclosing log marketing agreement and sales contract, specifications for logs, Christmas tree specifications and price list and a copy of the by-laws. February 1940.


65. Pond, James D. Letter to writer concerning Tioga Woodland Owners' Cooperative, Inc. and including mimeograph material on by-laws, use of survey data on Tioga area, results of timber survey conducted by the Forest Service, log grades and prices for 1939-40 and market agreement. March 1940.


74. Trenk, F.B. Letter to writer containing information on cooperatives in Wisconsin. April 1940.


79. U.S. Federal Trade Commission. Letter from Chairman of the FTC transmitting a report of the federal trade commission on cooperation in foreign countries. 1924.
