

1946
Agricultural Program
Conference
For
Columbia County



St. Helens, Oregon

February 8, 1946

Containing Reports of Committees
Submitted and Adopted February 8, 1946.

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Proceedings of the 1946 Columbia County
Agricultural Program Conference

St. Helens, Oregon
Feb. 8, 1946

W. C. JOHNSON, General Chairman
RALPH LANGDON, Acting Chairman
GEO. A. NELSON, Conference Secretary

FOREWORD

The Columbia County agricultural program conference of 1946 was a continuation of the planned agricultural development that has characterized the farming activities for many years. Earlier planning conference that contributed to this development were: 1925-1938.

The 1946 conference was decided at a meeting of the general planning committee November 20, 1945. It was decided at that time that this was an opportune time at the close of the war to plan for post war conditions that might effect the production and marketing of crop and livestock productions; also consider land use problems and farm home and rural life planning. Special consideration was given to the reforestation problems; both farm forest lands and other forest lands because the virgin timber had been nearly all cut and taken out.

Seven committees were set up months in advance of the conference date which gathered data and considered all facts obtainable before preparing reports and recommendations for submission to the final one-day conference.

Members of the Columbia County Extension staff who assisted with the conference was Mrs. Maud C. Casswell, Home Demonstration Agent and Geo. A. Nelson, County Agricultural Agent.

The conference adopted the reports and set up a committee to see that they were assembled and published for general distribution. The reports are accordingly presented in full in this pamphlet with the idea that they may serve as a guide, representing the best judgment of active farmers and farm leaders counseling with extension specialists in the various fields as to the trend in agricultural development of the farming industry and rural home life in Columbia County in the immediate postwar years.

The members of the committee on publishing whose work made the printing of this report possible are:

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Mrs. Harold Skeans
Glen Hawkins

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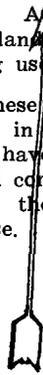
Advances in Agricultural Development

Advances in the agricultural development in Columbia County since the first conference was held in 1925 indicated that Columbia county farm products had increased in value from about \$1,179,719 to \$3,949,674. This, of course, includes the advanced prices caused by the war conditions. However, referring to volume alone, the total farm acreage in the county has increased from 89,889 acres of farm land to about 161,000 in 1945. Plow land has increased from about 20,006 acres to 39,898 acres. The number of cattle in the county has increased from about 9,737 head in 1920 to about 18,445 head.

At the time the first conference was held the farmers of the county were not raising enough hay to feed the number of stock they had at that time, and were importing considerable quantities of hay. While they still import some hay the acreage of forage crops has increased to more than one acre of hay to each head of cattle in the county. This consists principally of permanent seedings of grass and clover and less of the grain crops. Also there is more plowable pasture in addition to a large amount of seedings of cut-over land for pasture.

Originally Columbia County was heavily timbered with a fine growth of Douglas Fir, Red Cedar, and Hemlock. This has furnished the main industry for many years for Columbia county. This timber has now been cut from a total acreage estimated in 1895 of about 350,000 acres of virgin timber to about 7,000 at the present time. It is estimated that during that time about 95,000,000,000 feet of lumber was cut from Columbia county timber. At the present time Columbia county has a large amount of cut-over land that is now coming back to second growth timber and is now being used for farming and range land.

The ownership of these lands has changed materially during that time which is indicated in the land use reports. The various other reports included in this have dealt with these in light of present agricultural and timber land conditions as they have appraised them today and made estimates of their value, and made recommendations in regard to their future use.



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(corrected)

Farm Crops

The farm crops committee, at their meeting on the 23rd of January, considered the various crops in Columbia county and made some suggestions and recommendations in regard to these crops.

FORAGE CROPS

Forage crops are one of the most important crops grown in Columbia county. The total acreage being raised is over 21,000 acres, according to present information. This crop is raised for feeding about 20,000 head of cattle of all kinds, and other livestock. The importance of the livestock industry depends, to a large extent, on the production of sufficient feed of the best quality that can be grown.

One advantage in the production of forage crops is that there is a large variety to select from that are well adapted to Columbia county soil and climate. This includes grasses as well as legumes. The legumes consist of the clovers—Red, Alsike, White, and Ladino, and Subclover. Other legumes are Alfalfa, Lotus Major, and Lotus Corniculatus.

Some of the more important grasses that have been found to be adapted in recent years are the deep rooted grasses that will stay green a longer period of the growing season and are long lived; also those that form sods that are especially valuable in pasture lands, like the chewing and red creeping fescues and bent grasses. These grasses are usually seeded in mixtures with the legume crops in different combinations of which there are several kinds of mixtures that have proven quite satisfactory. Recommendations for mixtures can be obtained at the county agent's office.

FORAGE GRASSES IMPORTANT

The production of forage crops also have a triple value in that they can be used for the production of hay, grass silage, and pasture. This gives the crop a long production over the entire growing season. By raising grasses and legumes as forage it saves labor over the production of other crops that are planted annually at considerable expense for seed and labor. These well seeded forage crops are a great help in controlling weeds.

One of the new plants that is coming into use and becoming popular is Lotus Major, which has a wide adaptability and which will grow in Columbia county and is especially well adapted to low tidelands and hill land. It is a long life perennial that grows quite well throughout the growing season and is especially productive in the latter part of the season. It is high in protein and very palatable to livestock. It grows well in mixtures of the various grasses. It has proven outstanding on tideland and creek bottom lands. It has also done well on hill land in many instances, but since limited acreage has been seeded information is incomplete.

Subterranean Clover is also a valuable new crop that is being used and has proven quite satisfactory under certain conditions. It is adapted more for the open pasture and is not suited for the shaded pasture areas. It also needs superphosphate applications to keep it producing satisfac-

torily. There is a large amount of grass silage cut from the forage crops and used for both dairy and beef cattle, and it has proven quite satisfactory. One point that the committee wishes to stress is that it be cut young as the protein is high and will give the best quality of feed. The committee wishes to recommend a wide expansion of the use of grass silage. As it is well adapted to our conditions, the grass silage can be made under varying weather conditions, which sometimes gives difficulty in producing good quality hay. The committee wishes to recommend that where the crops and pastures are being seeded that good quality seed be purchased and mixed as desired. The committee wishes to recommend against the use of mixtures sold commercially as they often contain a high percentage of poor quality grasses that are of little value.

IRRIGATED PASTURE

The committee wishes to recommend the expansion of irrigated pastures where water supplies can be obtained at reasonable prices. By irrigating pastures much better pasture can be obtained during the dry months of the year, and of good quality, and it materially increases the carrying capacity of livestock. Forage that is especially adapted to irrigated pasture is Ladino clover, English ryegrass, Alta Fescue, and Meadow Foxtail.

LOGGED OFF LAND PASTURES

In the seeding of logged off land pasture it is recommended that the long lived grasses and the sod forming grasses, along with the legumes that are adaptable, be used. This mixture is to be seeded, under most conditions, on a well prepared seed bed after burning land over. The deep rooted and sod forming grasses, which will last over a long period, will have a good carrying capacity for stock and will help hold the fern and other weeds in check. Recommendations for these logged off land pastures can be obtained at the county agent's office.

GRAIN CROPS

Columbia county grows only a limited amount of grain crops and it is felt that there should not be an increase in these crops, that their principal use is being grown as a nursery crop. The continuous growing of grain not only depletes the soil fertility but increases the difficulty with weeds spreading in the grain.

The fall grains are recommended as producing a heavier yield than spring grains, as a general rule. The fall wheat varieties that have proven most satisfactory in Columbia county are the White Holland, White Winter, and the White Russian. Where it is desired to grow spring grain, Barley has proven the most productive and is recommended as a desirable grain to grow.

The Abruzzi rye is one of the newer varieties of rye that is being grown. It is recommended as a desirable variety as a use for pasture and in cover crops where it is desired.

CASH CROPS

Columbia county has several cash crops that can be grown to a certain extent. One of these is canning peas. Under certain growing conditions, where satisfactory contracts can be secured for growing them, and where soil conditions are favorable, they have proven to be a satis-

factory cash crop under average conditions. In addition to being a cash crop the pea vines that are a by-product are a very satisfactory feed crop when used as silage. This gives a double use from the crop. It is recommended that peas be seeded fairly early so that they can be grown and harvested during the cool part of the season.

POTATOES

Potato acreage has considerably decreased in recent years, as it is rather difficult to grow potatoes in the heavier soils in competition with those areas that have the lighter soils. There is a definite place for potatoes especially adaptable for growing on the various farms of smaller acreages. It is important, however, that potatoes be grown from the best kind of certified seed in order to avoid loss from the various diseases. There is a need for a few growers to grow certified seed for use here in the county.

The Burbank variety is recommended as the best variety to grow.

GRASS SEEDS

There is an opportunity to grow a certain amount of grass seed in the county as a cash crop in connection with the growing of forage and pasture. The best possibility is in connection with the Alta fescue, Chewing fescue, and Red Creeping fescue.

CLOVER SEED PRODUCTION

There is a certain amount of Red clover production in the county, and under present market demands it is felt that this can be expanded satisfactorily.

LOTUS

The Lotus seed can be produced satisfactorily as there is a heavy demand for this seed and the present prices should be an encouragement for the producing of seed.

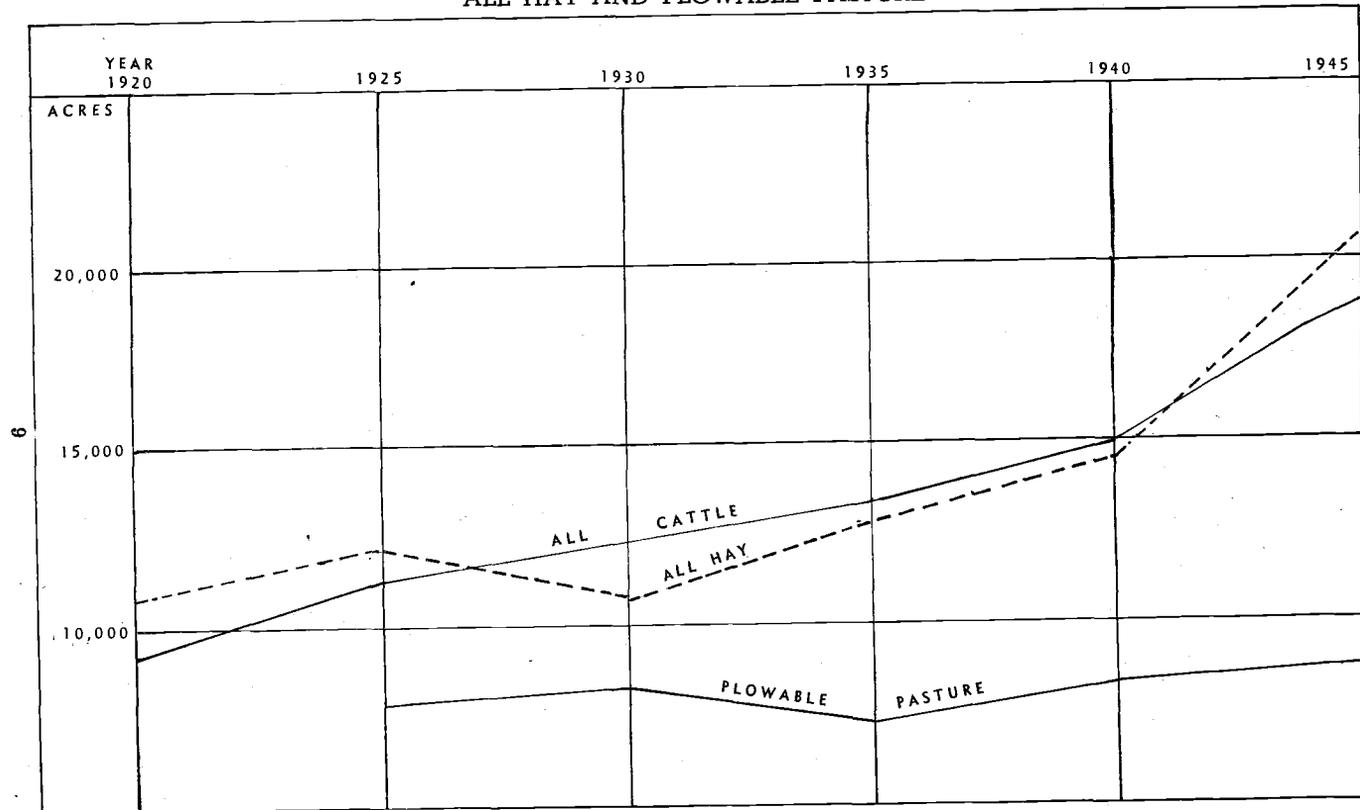
In the growing of any of the seed crops it is desirable to secure the best quality seed, free from noxious weeds, and to keep them clean of weeds in order to produce satisfactory seed.

NOXIOUS WEEDS

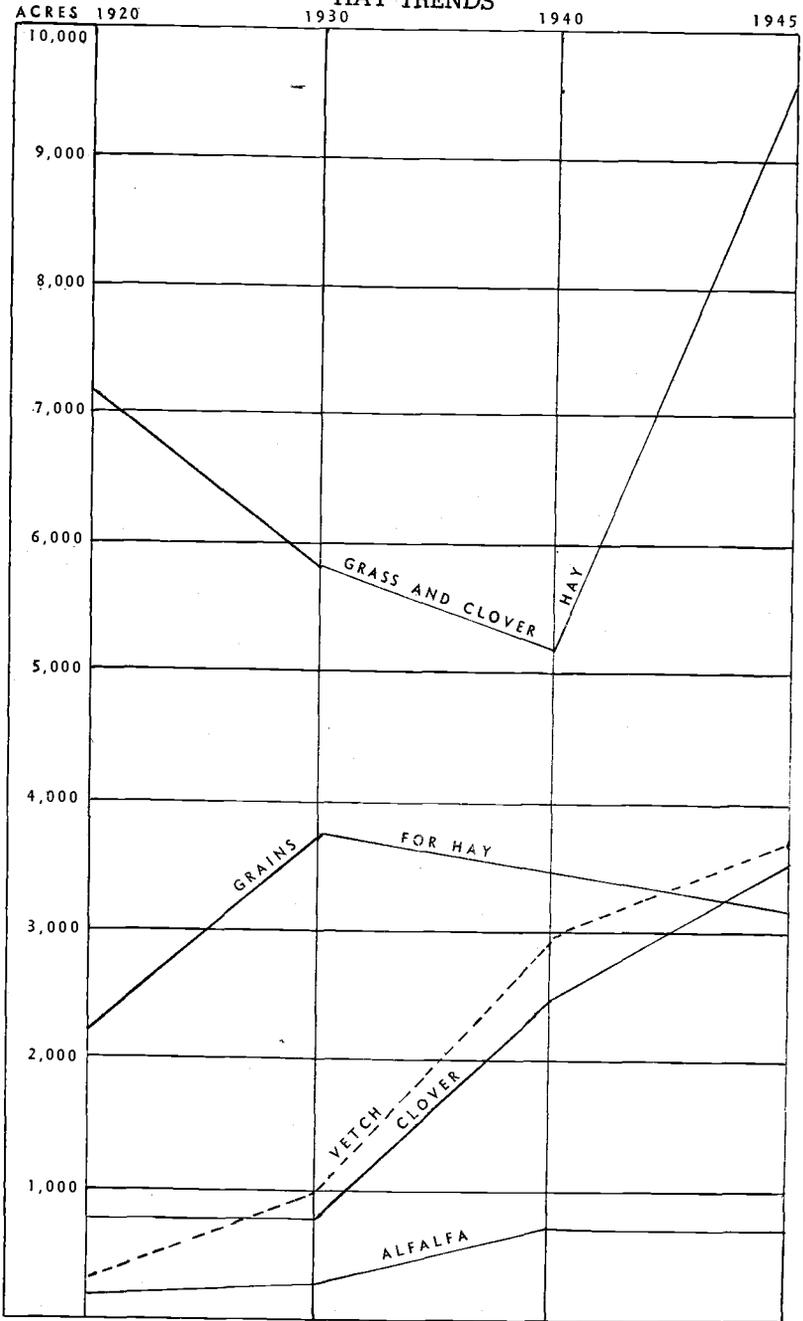
Weeds have spread during the war period because of the shortage of help, and materials for controlling them. It is recommended that special attention be given to the cleaning up of the Canada Thistle in all the farming areas in order to prevent the further spread of this menace. There are various methods that can be used which are the chemicals under certain conditions, growing of competitive crops, such as alfalfa, and some of the sod forming grasses; also with the use of grass and legume pasture mixture, and with the pasturing of stock and annual mowing. These have been found to be a satisfactory means of controlling Canada Thistle. Wild morning glory can be controlled in a similar manner. Where goats can be used they are satisfactory in cleaning up thistles. On the range pasture lands, use of stock salt, together with the trampling, will also destroy Canada Thistle.

Evergreen blackberries are also a menace and should be brought under control. The use of sodium chlorate is recommended in this

ALL HAY AND PLOWABLE PASTURE



HAY TRENDS



control. Goldenrod is spreading in many cases and can also be controlled in a similar manner.

There are also the annual weeds, like wild mustard, radishes, and carrots, that can be destroyed if they are kept from going to seed from year to year. There is considerable information available on the method used on the control of noxious weeds, and material can be obtained through the agent's office.

A motion was made and passed unanimously at the general assembly that there was the desire to have the weed control law enforced in Columbia county in order to take care of the noxious weeds.

Horticultural Committee Report

The horticultural committee has considered the various vegetable and fruit crops and wish to make the following report:

VEGETABLES

There will probably not be a shortage of local fresh vegetables for direct sale to, and consumption by, the consumer.

The likelihood of increased labor supply, with returning service men initiating more ventures in commercial vegetable production, will make enlargement of present operations risky.

There will probably be less demand for processed vegetables—but where established firms wish to enlarge their acreages of contracted crops, such as pear, cucumbers, or other crop successfully grown in the past, owners and operators of suitable crop land might profit by contracting additional or new acreages.

The general outlook calls for conservation and caution.

STRAWBERRIES

The committee considers that the strawberry acreage presents the best outlook for expansion and output. There is considerable demand from the canneries for the strawberry production at good prices at the present time, owing principally to the reduction in acreage in other parts of the country while Columbia county has continued to produce approximately the same amount of acreage of about 200 acres, or more. Owing to the demand for strawberries and our favorable conditions for producing them, it is the opinion of the committee that if satisfactory contracts can be obtained by the grower the acreage can be expanded to about 800 acres. This will take some time as there is a shortage of high quality strawberry plants available for additional planting. The committee recommends that certified plants be used for the expansion so as to get the best quality strawberries possible.

It is recommended that only well drained soils of more than average fertility be used to enlarge our present acreage.

It is felt that it will be detrimental to the strawberry industry to bring in a lot of strawberry plants that might contain diseases and be detrimental to the entire industry.

The committee would like to recommend a planting practice which has been used successfully in the county of planting one-half of the plants in the row. Then about July the runners from these plants can be brought to the center between the two mother plants and two of them planted in the center. In this way the fill in plant, if properly handled, will supply the additional plants.

VARIETIES

The varieties to be used generally should be the Marshall, or Improved Oregon, which is considered to be the same variety. This is the variety that is desired by most of the canneries and also for the fresh market.

For a limited production for local supplies some other varieties might be used.

The strawberry crop that gives high production on a small acreage of land is well adapted, especially to the small farm production, in Columbia county. With only a minimum amount of equipment needed it fits well into farm family production as well as on the larger farm production basis.

LOGANBERRIES

There is some demand for a slight increase in loganberries and red raspberries. The committee feels that there can be a substantial increase in red raspberries, especially the Cuthbert variety, if satisfactory contracts can be obtained for marketing them.

BOYSENBERRIES

There is a moderate demand for Boysenberries for local use at the present time.

One precaution that should be taken in the handling and care of all berry crops is to plant disease free plants and to properly control, or eliminate, any diseases that may develop that may be detrimental to the crop production. This is also true of any insects that attack the various berries. The profit from any of these crops may be seriously curtailed if the insects are not controlled.

Fertilizer is also important in planting of berries, or ground that is thoroughly prepared and high in fertility through the use of cover crops before planting, and the use of commercial fertilizer on the crops, especially early fall applications.

PEACHES

The committee believes that there is room for a slight increase in the production of peaches, up to possibly 100 acres for the county. The varieties which seem to be most in demand are the Crawfords and Elbertas.

WALNUTS AND FILBERTS

There seems to be a sufficient supply of both walnuts and filberts at the present time, and the committee does not feel that any expansion in these nut crops is justified at the present time.

HOLLY

The holly crop is in demand at the present time and it is believed that expansion of this crop can be made.

SPECIAL DRUG PLANT

There may be opportunities to plant some of the drug crops where they are adapted to the soil and climatic conditions in Columbia county, and where there is a market demand.

NURSERY STOCK

There is a demand for nursery stock of fruit and other shrubs and plants, and there seems to be an opportunity for expansion along this line.

MINT PRODUCTION

The peppermint industry represents a substantial industry in Columbia county, with around 3,000 acres in peppermint at the present time.

There are several factors effecting mint growing production in the county. Among them will be the readjustment period of prices following the war. There are other problems that the mint growers need to give attention to, and they are the proper fertilizers of mint fields to maintain production, and the keeping of insects under control. We wish to urge that more work be done along this line. Marketing problems are needing to be given attention during the readjustment period which the growers should work together collectively to obtain the very best prices for their product. There will be competition from other areas, many of which do not have the high quality of mint oil production like that of Columbia county.

There will, also, be competition from foreign countries that will have a tendency to cut prices with a lower grade of products.

The proper method of analyzing mint oil should be thoroughly investigated to determine a better standard of analyzing than the various methods that we have now, in which there does not seem to be any agreement between the different methods of testing.

Conferences have been developed with representatives from the Oregon State College to look into the development of a better method of testing.

Dairy Committee Report

The dairy industry of Columbia county represents the largest agricultural project. It is represented by a total of 67.4% of the animal units of the county, of which, according to 1944 census a total number of about 10,000 cows are being milked in the county. The improvement of the dairy project is of utmost importance toward the general agricultural development. The following projects are recommended in improving and maintaining the dairy industry in the county:

HERD IMPROVEMENT

1. To accomplish herd improvement, one of the first things recommended by the committee, is that of dairy herd testing. With this **definite information** at the hand of every dairyman there is a possibility of eliminating low producing cows, however, it is more important to locate the better producing cows from which heifers are again selected.

We recommend that every dairyman in order to improve his herd should have a dairy record of production of every **individual cow** in the herd.

Production can be obtained through **Official Testing, Dairy Herd Improvement Associations Standard Plan, and Owner, Sampled testing**. The latter two methods are recommended for the average dairyman in this county.

BETTER BREEDING, PUREBRED SIRES

The committee strongly recommends that the sires used by the dairyman throughout the county should be as far as possible animals with either producing records of their own or sons of such animals coming from good cow families with maternal and paternal good sires. Over a period of time this has been proven to be the most practical and cheapest way of increasing both milk and butter fat. To achieve that end, the committee suggests that the Purebred Associations of Columbia county cooperate by the selling of good bulls at reasonable prices throughout the county, also, the discouragement of the use of scrub bulls and pointing out the fact that the **law prohibits the charging of fees** for the service of such a bull or the sale of such a bull for breeding purposes.

The committee recognizes the value of **artificial insemination** as a tool for the mass improvement of dairy cattle throughout the county by extending the use of good sires. There has been organized in Oregon an **Artificial Breeding Association** for the purpose of carrying out the state wide program of artificial insemination. The committee recommends that the dairymen of the county **keep advised** of the **progress** of this program and at the earliest **opportunity avail** themselves of its use.

FEEDS

Roughages

In the county there is need for further development of **both irrigated and dry land pastures**. It has been demonstrated that through the development and use of pastures and the **cost roughage can be reduced**.

The more extensive use of **grass silage** in conjunction with the increase development in the use of pastures is highly recommended. The

use of grass silage provides a high quality feed and enables the dairyman to better utilize the early pasture forage. With the use of silage, the amount of hay used annually can be greatly reduced. The extensive use of pasture will also reduce the amount of high priced grain feeding necessary for production. At the present time the county produces approximately 4,000 tons of grass silage. The committee feels that the use of grass silage can well be doubled within the next year.

DISEASES

The committee wishes to point out to the dairyman of the county the importance of **Mastitis control** in their dairy herd management program. It recognizes that Mastitis probably causes more losses to dairymen than any other disease encountered at the present time. The committee recommends that on the basis of most research data that the following program be followed:

1. The dairymen should make an effort to control the spreading of this disease in his herd. By the use of a **strip cup** and by physical examination of the cattle this can be done. The only testing which is 100% accurate is the **microscopic** examination of samples of milk indicating the presence of causative organisms.
2. The **sanitation** program which has been recommended in the Station Circular 163 should be carefully followed by every dairyman.
3. Dairymen should keep in touch with the **Extension Service** for the latest **treatment for Mastitis**.
4. The **administration of various chemicals** have proved to be helpful in most cases of mastitis.

T. B. AND BANGS CONTROL

The committee fully recognizes the importance of continued efforts toward the control and possible elimination of Bangs disease. The committee recommends that dairymen give support toward **enforcement of the present bangs law both** with regard to testing and control of the movement of bangs react to cattle within the county and the state.

The county court should be supported in carrying out their responsibilities with regard to this program. A motion was made and seconded that a committee composed of one representative from Columbia County Guernsey Cattle Club and the Columbia County Jersey Cattle Club and Columbia County Livestock Association be appointed to **acquaint themselves with the law** and its operation and visit the county court for the purpose of discussing the problem with the court. This is to take place prior to the **June budget** meeting of the court.

The committee believes that the program should have 100 per cent support from the dairymen of the county.

4-H DAIRY CLUB WORK

While dairying is the leading agricultural project in the county we recommend that every effort be made to encourage boys and girls in 4-H club work in dairying. We specially recommend that the various organizations in the county get behind the 4-H projects. Encourage it by

furnishing leadership and assisting the member of securing the choice quality of stock.

We recommended that as soon as possible that Columbia county have a full-time 4-H club leader for handling club work.

Livestock Committee Report

BEEF CATTLE

A survey of the beef cattle industry in the county discloses more than 5,000 head are being maintained by both large and small operators. All breeds are represented, but the Hereford breed predominates. At least three operators have registered Hereford breeding herds, and one has registered Shorthorns. Many more have from one to a number of head of registered Herefords in their herds. Twenty-four operators responded to the committee's request for information on their practices in handling their operations, and reported herds numbering from as few as 10 head to as high as 500 to 600 head. One operator reported 2,500 head being fed.

From the survey it would appear that the industry in the county can well be divided into two classes—the small operators and the larger feeders. Of the more than 5,000 head of beef cattle in the county 4,000 head are in the hands of five large operators whose methods of operation closely parallel each other. These men are feeders who buy all their cattle, except for one who raises his own. They buy all breeds. They buy mostly steers two years and older and cows three to five years of age, also some yearling steers. One breeder raising his own has Herefords only maintaining a small registered breeding herd to provide his own herd bulls.

Their feeding practices are much alike. Three of them feed hay and grass silage, one feeds hay, grain, and corn silage, and the largest operator feeds only grain and grass silage maintaining that due to our Columbia county climate farmers put up much poor hay but can make excellent grass silage from the same crops. One operator now feeding hay plans to use more grass silage in his future operations.

In numbers of operators, the smaller herds are in the majority and practically all of them raise their own stock. They all provide shelter for the winter months or are planning to do so, while the larger operators have no shelter for their cattle except native trees. Only two of the smaller operators feed silage; the others feeding only hay or hay and grain. Where shelter is provided it is customary to feed under shelter. Pastures consist largely of native pasture or native seeded pasture and logged off land, 75 per cent having some logged off pastures for their cattle. Only three operators reported using irrigated pastures.

GRASS SILAGE RECOMMENDED

It is the committee's recommendation that more farmers seriously consider the use of grass silage in their feeding practices for it is highly nutritious and economical and crops can be ensiled when at their highest nutritive state and when the weather may be unsatisfactory for curing into hay.

Where practical it is felt that a more extensive use of irrigated pastures might well be considered; and a much more extensive use of logged off land seeded with a good pasture mix, properly fenced and with adequate brush control is desirable.

A number of operators have cautioned against overstocking; and against starting into beef with dairy stock and attempting to breed up as it is too costly. Many failures, or near failures, have resulted and a number have found it advisable and necessary to make a new start with the already established beef herds.

With the smaller operators it seems to be the consensus of opinion that feeding under shelter saves feed and provides considerable fertilizer which would otherwise be lost.

The market for livestock is either local or Portland Union Stock Yards.

The committee wishes to express its appreciation to the beef cattle operators in the county for their splendid cooperation in the preparation of this report by their prompt return of the questionnaire sent to them.

SHEEP

While sheep production in the U. S. and the State of Oregon has been considerably curtailed in numbers during the last few years, in Columbia county the number has increased. The number in the U. S. decreased from 46,597,000 as the average from 1935 to 1944, to an estimated 37,575,000. In Oregon, during the same period, they decreased from 1,803,000 to 921,000. In Columbia county the number of sheep increased from 3,900 in 1939 to 5,600 in 1945.

Sheep are well adapted to conditions in Columbia county. They are kept as small flocks on the farm and large farm flocks up to several hundred sheep. The sheep have been run successfully both on the hill lands and the bottom lands. On low lands they have been used principally in conjunction with the growing of seed crops, and keeping weeds and grass out of mint fields. For the latter use they have been quite a factor in cutting down the cost of labor in keeping the fields clean. At the same time, they have brought in a revenue for the sheepmen who run them on these lands.

On the hill lands they have been run on the cut-over lands, both on small farms and large numbers. Bands from Eastern Oregon and Washington have been run on the lands in the summer time.

As sheep is one of the classes of livestock that has been reduced in number, as compared with other classes of livestock, during the war period, there should be substantial demand for sheep and wool during the post-war period. In this way there is additional opportunity for expansion in the sheep industry in the county.

The types of sheep most successfully running in the county is that of the medium and long wool breeds. They will stand the winter conditions of the county quite satisfactorily. Fine wool sheep are not adapted for the farm flocks as they do not stand the wet weather satisfactorily.

The farmers who are going into the sheep business should keep the best quality of stock of the breed they prefer, and should always use pure bred rams of high quality in order to build up a profitable sheep business.

GOATS

Goats are considered one of the best types of animals for keeping land open of brush or weeds either for agricultural purposes or for keeping the various types of pastures open, including logged-off land. They will destroy practically any kind of brush and weeds where they are not too large and they will even kill fir and cedar, where they are small and confined to a limited area. They will also take out poison plants, like poison oak and poison ivy. They will also destroy weeds like Canada Thistle, and annual weeds like wild carrots, tansy, dog fennel, cats-ear and practically all other varieties of weeds and brush except nettles.

Grass can be seeded in the same pasture with goats and they will keep out the competing weeds and brush and the grass will grow from the fertilizer from the goats. This is an excellent way to provide additional pastures and to keep pastures open for cattle and sheep. Cattle and sheep can be pastured in the same pasture with goats as they do not object to pasturing on the same land with the goats.

FENCING

Some stockmen object to the keeping of goats because of the fencing requirements. This should not be considered too much of a handicap in the raising of goats. Any good fence that is built straight up and down with no stumps or logs near will turn goats. One of the best fences is the 39 inch woven wire fence with 12 inch mesh and one barb placed on top. The lower part of the fence should be even with the ground on the bottom so that they can not crawl under it.

A fence of this kind is very little more expense to build than a barb wire fence. When built, it will turn any kind of domestic stock. It has the distinct advantage of being less expensive to maintain when once built. The stockmen can always have the satisfaction of knowing that his stock is under control.

RETURNS

Angora goats of good quality will produce a crop of mohair. The average will probably produce around four pounds while the well bred goats will produce much higher than this. There is also a value for the tanned skins with the hair on and a moderate value for meat. The principal value of the goats is for land clearing either for agricultural purposes or for keeping pasture land open for livestock.

In other words an angora goat is an animal that will make his own way when he is on the place and when he is through, he will then leave his clothes.

Goats are especially hardy and are able to rustle for their own living most of the year. They also will fight varmint, like coyotes and dogs to a certain degree and they are much superior to sheep in this manner.

They need some shelter in the winter time to protect them from rain especially so that they can dry off once in awhile. During the mid winter months when there is little other feed they require a certain amount of feed to tide them over for the winter months.

We believe that there is a great opportunity for the use of goats in Columbia county for saving the farmers expenses of clearing land while at the same time getting returns for doing the same and providing better pastures for other livestock.

FENCING

In the handling of livestock, the committee recognizes that fencing is of paramount importance in the control of stock. Pastures should be enclosed with adequate fences that are properly built and as durable as possible. As the pastures develop, it is important also to have sufficient cross fences in order to properly utilize the range.

In the building of range fences, it is desirable if possible to have bulldozer fence rows made which can act not only as a fence row but also as a trail for livestock and for riding the range and as a fire brake. Some figures kept on the cost of building roads of this kind were in the amount of about \$90 per mile. This cost was made at the peak of cost during the war on moderately heavy clearing. It is believed that under normal conditions and with adequate equipment, that the work can be done for less money.

FENCING EQUIPMENT

We would like to recommend that farmers building fences on the range lands or ranch, investigate the latest equipment in fence building such as the power post hole digger and post driving equipment. Good equipment of this kind will lessen the expense and speed up the fence building operations. Such equipment is now available in Columbia county and can be investigated by farmers interested in building this equipment, which is home made and which any good workman can build. The post driving equipment is especially practical for the range land where there may be rock and roots to contend with, but under average conditions will not prevent the post from being driven properly. Where available, good cedar posts of adequate size should be used. It is recommended that these be placed from about 12 feet to not over 16 feet apart and that the post be quite heavy, well set, and well placed in order to hold the wire tight.

The wires should be heavy stock wire where barb wire is used as it is much stronger and will turn the stock better and will last much longer than the light wire. When using three wires as a minimum, we are recommending that four or five wires are more adequate for turning stock also that the top wires be close together so that the stock cannot get their heads between them.

WOVEN WIRE

We would especially like to recommend that stock be given special consideration to the use of heavy woven wire for fencing. Such a fence will turn the stock better, and not only cattle and horses, but sheep, goats, and hogs, where properly built especially if the 39-inch wire is used with the barb wire on top and used with 12-inch stays. There is evidence to show that this type of fence is much less expensive to maintain.

It is advisable in many cases to use goats to keep pasture lands open and free of brush and weeds and this can be done if the land is enclosed with good woven wire fences. Several of these wire fences have been built in Columbia county and maintained over long period of years as

evidence of their durability and are adequate for turning all kinds of livestock as mentioned above.

USE OF FIR POSTS

Where cedar is not available, the use of fir posts, given the salt treatment is recommended. As tested at the experiment station, they have shown the possibility of using this type of post. The information for this treatment of these posts may be obtained from the county agent's office.

CUSTOM FENCE BUILDING EQUIPMENT

It is felt that for the use of small operators that if someone would be interested in the building of post hole diggers or post driving equipment, that they could be employed by the various farmers for building their fences.

This would be the most practical and recommendable way for this work to be done and it would be furnishing jobs for those owning and operating the equipment.

POULTRY

The poultry committee wishes to bring to the attention of the poultry raisers of the county the fact that there has been an increase of poultry produce in the United States during the war. This increase amounts to approximately 50 per cent. In Oregon it has already increased about 15 to 20 per cent during the war. The main increase has been in the Middle West and East. Oregon has changed from an exporting poultry area, previous to the war, to an importing area. It is apparent that there will be considerable producing of eggs during 1946. The Columbia county poultry has remained about the same or with possibly a slight increase.

It is recommended, in view of the situation generally in the poultry industry, that there be no expansion at the present time, and that there should be a reduction of about 10 per cent in egg production in the county.

For those contemplating going into the poultry business, it is recommended that they do not start with less than 500 hens and that in economical units there should be around 2,000 hens. For those who do not contemplate going into the poultry business commercially, that they should keep only one or two dozen hens for their own use.

Those who wish to go into the commercial business of raising poultry do not always realize the cost that is required to go into the business. Exclusive of the land and the home, it will require an investment of about \$5 per bird to build the equipment of a brooder and laying house under the present conditions. About four acres of ranch land should be provided for each 500 pullets.

In the purchase of chicks, they should be from chickens that are free from pullorum disease. They should also come from grade "A" large eggs, in as much as there is some difference between the type of egg a chick comes from and the type of egg the chick will lay when mature. The brooder houses should be entirely separate from the laying house for raising chicks. Green feed should be provided through the growing period whether the pullets are on range or confined. It is essential that all

range equipment be portable so that it can be moved to control disease and avoid contamination in killing out the green feed.

TURKEY RAISING

The turkey business is pretty well established in Columbia county and many parts of the county are adapted to the raising of turkeys. There has been considerable expansion of the turkey business during the war in the county, while in the nation it has expanded about 43 per cent and in the state about 65 per cent. With this in view, the committee wishes to recommend a reduction of 15 per cent in the turkey business in Columbia county during 1946. During the war there was a per capita consumption of from $3\frac{1}{2}$ to $3\text{-}7/12$ pounds of meat per person. It would have taken a per capita consumption of five pounds to consume the 1945 crop, without the army purchases. During the war the army bought about 25 per cent of the turkeys in the country. The army has now stopped buying which will make considerable change in the marketing of the turkeys. In view of this it seems logical that there should be some reduction in the turkey production of market turkeys. It seems logical that this industry should be able to maintain itself on a fairly sound basis both in the state and in Columbia county during the next adjustment period.

Columbia County Land Use Committee Report

REPORT OF COMMITTEE ON UTILIZATION OF RANGE PASTURE LANDS

The present records show that the farmers of Columbia County own about 161,000 acres of land with about 39,635 acres of this under plow and the balance of the land, about 116,000 acres, is in pasture and second growth timber. There is considerable of this acreage that can be cleared and developed for plow land, especially with the use of modern equipment.

Some of this land will no doubt be utilized by the farmers for range land by seeding into permanent pastures and by stocking for cattle and sheep occasionally for use of fire for controlling the brush and maintaining it into permanent pasture. Other lands will no doubt be utilized for pasture until the timber growth has crowded out the pasture, in which case, it can be utilized for cattle and sheep where it is not overgrazed. Cattle and sheep do not do any material damage to reforestation as has been shown by use of the land here in the county. Some places, bands of sheep have been used for as much as nine years without doing damage to reproduction.

Where ever a good seed bed can be prepared by burning or otherwise, these pasture lands should be seeded to deep root and sod forming grasses and adaptable legumes. We have a large variety of grasses and legumes that can be used for these purposes such as the alta fescue, chewing fescue, highland bent, orchard grass; and Reed canary grass for swampy or wet lands. We have such legumes as lotus major, white clover, and sub-clover which are all adaptable grasses and legumes that hold down the fern and other weeds and furnishes a substantial forage for livestock. These grasses can be used in varying mixtures and the county agent's office should be consulted in regard to these various mixtures.

Where a good seeding is made of adaptable grasses and legumes, there is evidence like on Northup Creek Experiment Station which was seeded in 1936, and at this time there is excellent stands of grasses and legumes after ten years of use. This experiment has been witnessed by hundreds of people from all parts of the county. There is evidence of several pastures in Columbia county that have been maintained and used as much as twenty years or more, where it has been pastured fairly heavy. Where goats are used under proper control and management, they will keep the brush under control as we have plenty of evidence in the county to this effect. We would like to suggest that the farmers provide the proper fences and use goats for keeping their pastures opened up for other stock.

Where it is desirable to burn land for a good pasture seed bed, it is recommended that farmers take advantage of the state law to cooperate with the State Forestry Department for building fire trails, in which the State Forestry Department and the county pay a substantial part of building these trails, and furnish the equipment for this work.

PASTURE ON CULTIVATED LANDS

In the development of the livestock industry, as well as dairying, we would like to recommend the following utilizations of the pasture possibilities, both in the utilization of water supplies for irrigation where

the water can be obtained at reasonable cost as this increases the production of the pasture on the land and makes the pasture available during the dry summer and early fall months when it is otherwise inadequate.

Where irrigation is not possible or feasible we would like to suggest that the deep rooted grasses and long lived legumes be used, such as the tall fescue which has deep roots and will remain green through the dry season and gives the longest pasture of any grass during the year as well as produce a hay crop. There is also the legumes like lotus major that is a long lived grass and will grow during the dry season and makes a good mixture along with alta fescue. Also the other legumes like the white clover and sub-clover of the Mount Barker and Talarock varieties. They are proving quite favorable for forage and hay production. On the bottom lands and irrigation lands the well known perennial ryegrass is still one of our most desirable grasses, being not only productive but quite palatable to livestock. Other grasses like creeping fescue, and chewing fescue, and orchard grass, can also be used to advantage. Meadow Foxtail can be used to advantage on overflow lands and it will stand the overflow and is quite palatable to livestock. Reed canary grass can also be used in overflow lands and will make an abundance of feed. The drawback, however, is that it is rather unpalatable and will not be eaten by livestock if other grasses are available.

FIRE USE AND CONTROL

Fire Control

It is suggested that every precaution be taken for the control of fire in our forest and farm lands as a deterrent to the county's development. All fires should be reported to the fire warden for prompt action in controlling them.

The volunteer fire fighters have proven their value in years past in taking charge of fires immediately and keeping them under control until the fire patrol crews could reach the fire. This has proven valuable in keeping fires from getting out of control. The volunteer fire fighters have reported fires promptly so that arrangements could be made to take care of them.

The Use of Fire

In the use of fire, every precaution should be taken in building fire trails and falling snags in preparation for fire. The application for burning should be made as far in advance as possible so that the area could be inspected in advance and arrangements made for granting the permit, for burning when it was desirable in line with safe burning. It is recommended that if possible, burning be done in the fall of the year.

The burning of farm land is detrimental to both pasture lands and reforestation unless it is seeded to pasture. Where it is desired to burn farm lands, the fire trails should be provided and the area burnt over and seeded to pasture grasses. This would provide pasture for livestock and would have a tendency to hold down the growth of fern and the ground could be developed for productive purposes.

There should be trails provided where pulp wood is cut as well as being carried on for fire protection.

Farm Forestry Sub-Committee Report

THE SITUATION

There are approximately 39,000 acres of farm woodlands in Columbia county. Until the war years the second-growth Douglas fir and alder growing on these farm tracts was generally regarded as worse than useless because the trees were of little immediate sale value and presented an expensive land clearing problem. Because of favorable climatic factors the second-growth timber, established after the original old-growth logging operation, grows very rapidly. The trend of the wood industries toward the utilization of smaller trees reached a high point during the war period and is expected to continue as the last old-growth stands are cut. This combination of favorable growing conditions and marketing outlets has created opportunities as well as problems for the farm woodland owners of Columbia county.

Markets for small material, such as pulpwood and railroad ties, have led to frequent clear cutting of second-growth Douglas fir stands at the time of fastest growth rate when the trees are increasing in value. Some farm owners have clear cut such stands from lands intended for grazing or crop purposes, but most of the clear cutting is by gypo operators with little or no regard for subsequent crops of trees, grass or agricultural crops.

Markets for small-size wood products are continually expanding. It is becoming possible for farm woodland owners to realize returns from those lands unsuited for grazing or cultivated crop production. As with any other farm crop, the farm woods will produce greater returns per hour or per acre if managed for sustained production. The farm woods can furnish winter jobs for hired farm labor and at the same time pay a return on time and labor invested.

Farm woodlands in one county of Oregon are returning the owners \$20 per acre per year under managed cutting operations by the farm owner.

RECOMMENDATIONS

In order to encourage good farm woodland practices for maximum cash returns the farm forestry sub-committee of Columbia county suggests that the following recommendations be incorporated in the county agricultural program.

1. Protection of farm woodlands from fire

Fire protection is the primary factor in forest production. There is real danger that the old practice of slashing and burning small second-growth for land clearing purposes will be resumed as labor becomes more plentiful unless farm owners can be shown a more profitable use for their forest growth.

Fully stocked second-growth occurring on those farm lands suitable for grazing or crop production should be clear cut and marketed as soon as it reaches merchantable size. The returns from the wood products thus removed may pay a part or all of the land clearing costs. Farm

woodlands occupying land unsuited to any other use should be protected from fire by cleaning up slash along main roads, skid roads and around nearby high hazard areas such as fern patches and recent logging shows.

Cooperation should be continued with the forest industry and the State Board of Forestry pertaining to construction of fire breaks with heavy equipment owned by these agencies. Continued fire prevention education through the office of the county agricultural agent is recommended.

2. Markets and Uses for Farm Timber Should be Developed.

A real need exists for additional information pertaining to specifications, prices and market demands for all species and all sizes of farm timber products. Farm use of wood products can be expanded greatly by using recently developed wood preservatives. Portable sawmills of the type operating in the State of Washington could produce rough lumber for the farm owner at considerably less cost than paid for lumber at commercial yards.

In order that staple and dependable markets be available for more farm woodland owners of the county the committee recommends that annual quotas be established by the local wood using industries so that the producers may obtain an estimate of the quantity of wood products they can expect to sell in any one year.

3. Values of Various Wood Products Should be Compared.

The most important question confronting the farm owner who is producing raw wood for market is the form of product which will bring him the greatest return per hour. Comparative returns per man hour of work should be studied for such products as fuel wood, pulpwood, poles and piling, sawlogs, etc. Returns per hour, equipment available, location and nature of markets all determine whether the farm woodland owner will harvest pulpwood, poles or sawlogs.

The total value of the second-growth farm woods to the owner depend on these factors as well as size of timber and density of the stand. Technical foresters and farm woodland owners can determine the answer to this problem by working together.

Cooperation should be sought from the wood-using industry in limiting the marketing of large quantities of high grade saw logs to wood fabricating plants. In some instances large logs have been split and sold as pulpwood while smaller second-growth material was available.

4. Best Use of Partially Stocked Farm Woodlands

Oftentimes the farm woodland is not completely stocked. Frequent fires and overgrazing by sheep and goats prevent establishment of reproduction and maximum possible growth of older trees. As is the case with every other farm crop there must be a capacity growing stock on each acre of farm woodland to produce maximum returns per unit.

Considerable question exists as to the best procedure to follow on those farm woodlands which are only partially stocked. On those partially stocked lands suited to pasture or crop production it probably

is advisable to remove the trees even though no market exists for the particular sizes involved. Those lands suited only to forest production should either be interplanted or in some instances grazed lightly by cattle until the openings have seeded in naturally to trees. Particular attention should be exercised in reducing the number of animals on the area as the trees shade out the grass.

5. Taxes on Farm Woodlands

At the present time farm woodlands are taxed annually on the same basis as other farm land. Farm lands to be maintained in a continuous timber crop could, in many instances, be reclassified as forest lands under the Reforestation Act. This Act provides for an annual assessment of five cents per acre per year plus 12½ yield tax at the time the timber is harvested. This method of taxation permits the owner to carry forest lands during the growing period and provides for payment of taxes at the time the owner receives cash income for his forest crop. Fire patrol taxes should be currently paid to aid the fire protection agencies in providing adequate fire fighting services on the county.

Conclusion

The committee suggests that the foregoing recommendations be accomplished by the following methods:

1. Intensive publicity by newspaper, circulars, meetings and demonstrations which will emphasize the importance and value of the farm woodlands to their owners.

2. Cooperation between farm woodland owners, public and industrial foresters and agricultural leaders in the county.

3. Field service by public and industrial foresters regarding the technical aspects of timber cropping. The county agricultural agent's office can provide such service from these sources.

The committee wishes to emphasize that the foregoing recommendations are designed to encourage woodland management on those farms lands suited only to sustained timber cropping. There is no desire on the part of the committee to maintain farm land in timber growth when such lands are better adapted to grazing or cultivated crop production.

Respectfully submitted January 24, 1946.

SUB-COMMITTEE ON FARM FORESTRY
FRED ZIMMERMAN,
Chairman, Farm Forestry Sub-Committee
BERT BISHOP, Member
H. F. CARSWELL, Member
FRED MOLLENHOUR, Member
DAN D. ROBINSON,
Secretary, Farm Forestry Sub-Committee.

LAND USE COMMITTEE,
COLUMBIA COUNTY, OREGON

JANUARY 28, 1946

REPORT OF SUB-COMMITTEE ON LAND USE

COMMITTEE MEMBERS

Glen F. Hawkins, Chairman

L. F. Cronemiller

R. Tarbell

INTRODUCTION

Logging on a liquidation basis in any county having a large stand of virgin timber has always ended in maladjustment of the county economy. The "cut out and get out" policy inevitably results in reduced income to the citizens, a migrant population and a threat to the solvency of the government through the reduction of the tax base.

The return to the highroad of financial solvency on a basis comparable to that enjoyed during the era of a vast storehouse of timber is a condition that cannot be achieved over night. In fact, log production and resulting prosperity enjoyed during the heyday of liquidation will never return. Liquidation was overcutting and the prosperity resulting therefrom was transitory. The land does not have the capacity of continued forest production equivalent to early day logging. There must be a proper balance between the growth and the harvest. This is the ideal to be achieved but it requires time. Forest growth is a slow process.

Certain land programs and policies have been established which, if followed, will grow in importance as the years go by and the result will be a gradual betterment in the welfare of the people of the county. Continued adherence to a definite and progressive forest policy is necessary to improve the balance between the human and physical resources of the county.

HISTORY

Prior to the turn of the century Columbia county was almost completely covered with high quality timber. Rail and water transportation and manufacturing plants within a radius of a few miles, placed the county in a strategic position in log production. Some of the earliest logging in the Oregon country was in Columbia county. The county saw the transition from the old hand logging through the ox team, donkey engines and railroad transportation into the modern caterpillar logging and truck transportation. This was the period of timber liquidation which resulted in abandoned lands, tax delinquencies and a threat to financial insolvency in governmental activities.

Columbia County, through force of circumstance, has gone through a period of readjustment. It has been faced with critical financial situations but has succeeded. The era of timber liquidation has ended. Forestry in the county now becomes forestry of the future for it is a county of second growth timber of varying ages. Future forestry income lies in second growth. Whether this income is to be stable or transitory depends upon the forest land owner and the public agencies. The future looks bright for forests are now regarded as a crop and are being so managed.

LAND OWNERSHIP PATTERN

The history of the land ownership pattern in Columbia county is similar in many respects to that of all counties which at one time contained a larger amount of merchantable timber. In the early days nearly all forest land was in private ownership, but coincident with logging, came land abandonment, continuing on an ever increasing scale as logging progressed. During the late 30's the county found itself the owner of large areas of forest land. But by the beginning of the present decade

a change became apparent. An active market developed for lands carrying a stand of merchantable or near-merchantable second growth. Gradually this market expanded to include all classes of forest land. These new purchasers were in forestry on a permanent basis. Thus came about one of the essentials of modern forestry—stabilized land ownership.

It is unlikely that the county will again be the owner of any large acreage of forest land but some tracts of limited area may pass to county ownership. There should, therefore, be some policy relative to the disposal or management of these lands. The county has three courses which it might follow. These include (1) sale to private individuals or companies, (2) retention in county ownership and (3) transfer of title to the state forestry department.

Private Ownership. It is recognized that private ownership is most desirable. Sales should be made on the best terms possible from the county standpoint and only under conditions which give reasonable assurance that such lands are to be dedicated to permanent forest production.

County Ownership. The county may decide to retain title to lands because of location, lack of available purchasers, a desire to cooperate in a timber management program, recreation, watershed protection, experimental areas or some other reason. Whenever the county decides to hold forest lands on a permanent basis, such forests should be dedicated as county forests by county court action. The lands cannot then be alienated without a vote of the people.

State Ownership. Where the county does not desire to retain title to those lands that will not go into private ownership, such lands may be deeded to the state of Oregon for the use and benefit of its board of forestry. The state accepts the responsibility of protection and administration and returns 75 per cent of the gross income to the county at the time of logging.

In a discussion of the land ownership pattern, mention should be made of the desirability of publicly owned watersheds. Title may rest with the municipality, county or state, providing the area is primarily and permanently dedicated to the use of the municipality. Where such areas have not already been acquired, action should be taken as soon as possible.

PROBLEMS OF LAND USE

The problem facing Columbia County in land use is allocation of lands according to their adaptability to farming, grazing, forestry, industrial and recreational sites.

Twelve per cent or 50,000 acres of Columbia County is improved farm land, from which the farmer is receiving a part or all of his income.

Eighty seven per cent of 362,000 acres of Columbia County are potential timber forest lands. From these facts it is evident that Columbia County's economic future is going to be dependent to a large extent on the efficient development by individual and private industry of these potential timber growing lands.

The growing of timber is no longer a hit or miss affair; it has become a scientific operation the same as dirt farming. With the passing of the large virgin timbered areas, we have seen the rise of technical forestry and the technical forester has become the tree farmer of our acquaintance. His problems and the problems of the dirt farmer are much the same. He is affected by winds, rain, drouth, and fire.

Scientific experiments have shown that grazing can be an intergal part of tree farming. The results of grazing cattle and horses have been very good, on the other hand, test have shown, unfortunately, that sheep and goats are harmful to a new forest crop.

Much planning is needed before a decision is made on which lands should be set aside for the growing of timber. Economic forest management requires the forest area to be in a comparatively large block as free from broken small ownerships as possible. When it is necessary to settle within a forest area the location should be picked for its accessibility by roads, power, and transportation. Isolated settlement can become an expensive venture to local as well as county budgets through the added expense of long school bus runs added road costs, etc.

***REFORESTATION**

Reforestation in Columbia County is a minor problem. The soil conditions, topography and climate are ideal for the growing of timber. Practically all of the timber growing acreage is restocked with very minor acreage that will need replanting. This county is recognized as the finest timber growing county in the State of Oregon. The productive capacity of its lands are exceptionally good with slightly more than ninety per cent the acreage being Site II and Site III and no Site V or the poorest growing conditions.

MANAGEMENT

Since Columbia County and private industry are the largest owners of timber growing acreages it is only natural that the farm woodlot and small land owner will look to them for advice and help in the proper development of their wood lands.

Private industry is approaching the tree farm development in a scientific manner. Roads are being built into even the remotest areas, the idea being to be able to drive to within fifteen hundred feet of any location. These roads are a permanent installation that will be maintained perpetually. Fire trails are being built as a precautionary measure. Telephone lines are being installed so that service may be had from any area.

Salvage logging operations are following the big logging shows, harvesting pulpwood, shingle bolts, and short merchantable logs. This is not only a source of revenue but it is also a precautionary measure, reducing future fire hazards by clearing the ground of inflammable debris.

In the larger stands of second growth thinning operations are being carried on selectively. This cleans up the forest and gives the remaining timber a chance to expand much faster.

The county owned lands are not getting the attention due an asset

*See Range Utilization Report Page 24

of their potential value. The more accessible stands are being disposed of. The usual procedure is a slashing of the area for the pulpwood or tie timber it contains, leaving a dangerous slash as a menace to remaining stands and the denuded land reverting back to county ownership.

Any county so dependent on timber resources for its economic well-being should study its problem scientifically and set up a program for the development of county owned lands which will be a source of income perpetually and an example of efficient management to the small land owner. This will mean the installation of trained help but the ultimate returns justify the expense.

MARKETS

We are particularly fortunate in Columbia County from a marketing standpoint for our timber products. There is already located in the county one of the larger pulp and paper mills of the northwest. Our vast water frontage and main line railroad systems give us a ready outlet for our timber products.

PROTECTION

The primary requirement of any forest program as a standard of protection whereby there is reasonable assurance that fire losses will be reduced to a point where they will have little effect upon the productivity of the forests or any of its uses, either economical or social, that contribute to the welfare of mankind. Adequate fire protection depends upon a number of factors and includes effective laws and intelligent administration; adequate finances; cooperation of land owners, operators and public agencies, and recognition and acceptance on the part of the public of its responsibility in a state forestry program. The sub-committee desires to emphasize the following points:

1. Endorsement of centralized administration of forestry activities in order to definitely fix responsibility for protection and suppression. The state is to be commended upon taking direct administrative charge of protection in Northwest Oregon.
2. We strongly urge that the state legislature carefully consider the needs of forest protection in the state as well as the county and make adequate provisions for financing a strong state forestry organization.
3. Public education in forestry matters is an essential part of all forestry. The Keep Oregon Green Association has been accomplishing outstanding results along these lines and the work should be continued.
4. Close cooperation between the forestry agencies and the farmers in order that the latter may suffer little inconvenience and unnecessary expense in land clearing, consistent with good protection practices.

RECREATION

Columbia County owns several good park sites which should be improved and publicized so they can be found and enjoyed.

Picnic spots are being improved along the Nehalem by the Grange and private industry and will be available to the public use.

LAND USE
PERMANENTLY MARKING SECTION CORNERS

The committee wishes to draw to the attention of the people of the county the importance of permanently marking section corners that still can be identified and remark and record them from the government property witness trees, and recommend that the county takes steps to establish as many of these as possible with the help of Roland Masten, who is familiar with the location of more section corners in the county than any other man.

If this is not done, enormous expenses will be incurred by property owners in surveying to locate these corners that should be used instead for developing other wealth in the county.

There will be plenty of surveying to do on property in the future even where the corners can be located.

LAND USE
WATER FRONTAGE

It is recognized by the committee that one of the most important land uses in Columbia county is the utilization of the Columbia River Water Frontage. This frontage offers immense possibilities for industrial sites for industrial development.

The Columbia River is the great water way of the West. It also has a railroad and paved highway and is supplied by almost unlimited power from the Bonneville Dam which offers immense advantages for the location of industries. We wish to draw special attention to the survey and maps made by the Bonneville administration of these facilities along the Columbia River highway through Columbia county.

RECOMMENDATIONS
of the
FARM HOME AND RURAL LIFE COMMITTEE
Columbia County, 1946

Mrs. Harold Skeans, Chairman
Mrs. Leslie Howe, Secretary

During war years farm and rural families have realized that their home and community life needed many improvements. Plans were needed for these improvements which would give farm and rural families such things as better home buildings, more labor-saving equipment, improved furnishings, adequate food and clothing for family members, opportunities for care of health, education of youth, social and economic advantages—in short, better rural living for everyone.

Knowing these were desires of rural people, this committee studied the needs of rural families in Columbia County and make the following recommendations to help solve problems of the housing situation, the clothing situation, the food and nutrition situation and the family life situation.

HOUSING REPORT

1. Building and Repairs

The 1940 census shows that there are 589 rural farm dwellings out of 2,365 dwellings needing major repair. This number has increased considerably due to the housing shortage which made it necessary for people to live in houses that could be repaired and made liveable comfortable homes.

The committee wishes to recommend that farm families be given help in remodeling their dwellings, including simple reorganization of equipment, addition of shelves to cupboards and built-ins, addition of new cupboards, adding service rooms such as utility room, bedrooms or any other necessary room. Food storage rooms should be given attention also in remodeling with special attention to installation of proper ventilation of these rooms.

Since most of the farm buildings in the county were built from 1910 to 1925, and since most of the houses are three to five room dwellings, there is need for improved building, repairs, and new construction. Many families have money to build, therefore the committee wishes to recommend:

- a. That the farm family be given help in financial planning for home building.
- b. That help be given with selection of construction plans for new buildings or additions to already constructed buildings.

2. Electrification

Because only 69% of the rural farm homes in Columbia County have electricity, and because many families are planning to have electricity for the first time, the committee feels that the homemakers of Columbia County need assistance in home refrigeration, planning for lights, wiring, care and use of electrical appliances, and also, the selection of appliances.

a. Home Refrigeration: Because home refrigeration will be available in many homes in Columbia County the committee wishes to recommend:

- (1) That there be district meetings on how to construct and main-

tain the home refrigeration plants and that this be done in district meetings early enough to avoid the onrush of salesmen.

(2) Meetings should be held on how to care for home refrigeration units.

(3) That draft coolers also be demonstrated and explained, as there are many foods that the homemaker can place in the draft cooler which would cut down on the valuable space in an electrical refrigerator and also on the cost of operating the refrigerator.

b. The committee asks that help be given to communities for planning, wiring and installing electric lights, appliances, plugs and other simple electrical installations.

c. That assistance be given in use, care and repair of electrical equipment and appliances which the family can take care of themselves.

d. That points to consider in selecting and in purchasing new electrical equipment be given the farm family.

3. Water System and Sewage Disposal

The census shows some startling facts about sanitation in Columbia County. One thousand two hundred twenty-five nonfarm families and 1,818 rural farms had outside toilet or privies. One thousand six hundred ninety-six farm households do not have bathtubs or showers, while 1,349 nonrural farms do not have bathtubs or showers. Since 1,170 of the 2,365 rural farm homes have running water, and since 1,818 of the 2,365 have outside toilets, and since 1,696 do not have showers or bathtubs, the committee wishes to recommend:

a. That help be given farm families in construction and installation of bathrooms.

b. That special help be given in installation of septic tanks and cess-pools.

There are many farms in the county that do not have modern running water supply, and the committee wishes to recommend:

a. That assistance be given farm families on installation of water systems, explaining type of pump and water system suitable for Columbia County where special attention must be given to water which has iron in it.

b. That families avail themselves of the free service to have water tested for purity in all areas of the community.

4. Heating

a. Out of 2,365 rural families 1,985 use heating stoves, and because most families have their own wood, the committee wishes to recommend that homemakers be given assistance in planning for this type of heating in reference to constructions of chimney and selection of the best type of heating stoves.

b. Heat may be conserved in a house if properly insulated. It is recommended that farm families receive information about the best types of insulation, installing of that insulation; and that farm families have an opportunity to make comparative studies about the heating of homes by electricity, gas, or wood. They are interested in the comparative cost and efficiency of each. Figures were secured by one of the members of the committee on electrical heating. The house was built in 1944, and contains 12,700 cubic feet of Rockwool insulation. Cost at Columbia

County rates averaged \$17.55 per month with summer months running an average of \$6.35.

5. Economics

According to the Columbia County Agricultural Agent very few families keep farm and home accounts. Because family finances play an important part in the progress of the farm business the committee wishes to recommend that each meeting have a follow-up meeting to carry the families through one year with about three meetings.

6. Landscaping

Families have been too busy during the years of the war to improve their home places, but now the working hours per week have been shortened somewhat and it appears that home landscaping can be done. Therefore, the committee recommends the following program for improving the grounds of the farm home.

- a. Cleaning of the grounds with removal of excess brush, shrubs and grass.
- b. Group meetings on landscape planning.
- c. Group meetings on planting of shrubs, trees and other ornamental plants.
- d. Group or unit meetings on the starting of shrubs.

FOODS AND NUTRITION

1. Family Food Supply

An adequate food supply is one of the first necessities of the home. In 1939 there were 1,252 Columbia County farms reporting the use of farm products used by the farm household as a major source of income. The total value of farm products sold or traded by the farm household per farm was \$317.06 per farm. The value of the farm products used per farm amounted to \$217.29, therefore the committee wishes to suggest that the families of Columbia County plan to raise as much of the family food supply as possible. This food supply should include vegetables, poultry, meat, dairy products and fruit for the year around family food supply.

In the summary of the recent research work "Nutritional Status of Rural Youth in Marion County—Vitamin C Deficiency," this statement is made, "In general more milk, garden vegetables, ray fruits, citrus fruits and tomatoes, eggs and meat, fish, poultry or dried legumes should be consumed to meet the standard allowances for an adequate diet." The Committee feels that Columbia County has conditions similar to Marion and also wishes to recommend that year around gardens be encouraged so a more adequate amount of Vitamin C can be included in family meals.

2. Food Preservation and Preparation

a. Freezing Food.

Because many farm families will have access to frozen food lockers who have never had them before, and because many people have not had assistance with preparation of the food for the locker the committee feels it is necessary for the farm family to have assistance in preparing foods for the locker.

b. Canning and Drying.

There is continued need for information on canning and drying of foods, the use of canning equipment and the selection of canning equip-

ment. It is recommended that demonstrations and other help be given homemakers in all these phases of food preservation.

c. Food Preparation.

New methods in food preparation that conserve food value, time, energy and expense should be made accessible to farm women.

3. Consumer Buying

Consumer buying should be considered and stressed because every family is affected by the purchasing of foods. The committee recommends a thorough study of the sizes and standards for commercial containers, which would include labeling and the study of the pure foods law.

4. Community Cannery

Because many homemakers do not have adequate canning equipment, and because many homemakers go to a neighboring state to have the food canned in tin cans, the committee wishes to recommend that a community cannery be established in Columbia County which would be helpful to farm families and others.

CLOTHING

1. Consumer Buying

Because women have not had an opportunity to study the selection of materials, and because the standards for yard goods and ready-made clothing have changed, and because many new materials will be coming on the market which the homemaker has not been able to secure or familiarize herself with in any way, the committee recommends the following:

That help be given the homemaker on consumer buying and labor, which will include selection, care, and use of the following:

- (1) Clothing accessories, such as hats, purses, gloves and belts.
- (2) Yard goods, which would be used in making garments of all types.
- (3) Readymade clothing which would include outer garments, dresses, and all types of underwear.
- (4) Hosiery which would include women's children's and men's.
- (5) Household furnishings, which would include tables, rugs, linoleum, and draperies.
- (6) Water-repellent materials and how to treat clothing to make it water repellent.
- (7) Rain hats, shoes, and heavy clothing for children.
- (8) Yarn which is used in making knitted garments.

2. Household Pests

Because household pests are common problems of the homemaker in Columbia County, the committee wishes to recommend that meetings be held on the control of household pests, which would include clothing moths, flies, bed bugs, ants, silver fish, spiders, etc.

3. Dying

Outer clothing, as well as many other garments, can often be made like new through dye, and with the scarcity of needed new clothing we recommend that homemakers have an opportunity to learn how to dye all types of clothing.

4. Construction

Because homemakers have found it necessary to remodel many of the family garments, and because of the shortage of yardage material to make new garments, the committee wishes to recommend that meetings be held on the remodeling of garments and the proper methods in construction of new garments. It is suggested that special help be given in pattern alteration of the commercial.

5. Sewing Machine

Because the sewing machine plays such an important role in the making and mending of family garments, the committee suggests that homemakers be given an opportunity to attend meetings in Columbia County on cleaning and adjusting the sewing machine.

6. 4-H Clubs

Because 4-H Clubs give boys and girls an opportunity to develop leadership, work with fellow club members, and develop skills in home-making, the committee wishes to recommend that 4-H Club, especially clothing clubs, be encouraged.

WHOLESOME FAMILY AND COMMUNITY LIFE

1. Recreation

Wholesome family and community life depends primarily on the family. Learning to play through games is very important because it helps the individual to develop a respect for authority, have an opportunity to learn to give and take, and to share in playing together. In this period of reconstruction there is great need for wholesome entertainment, so the committee wishes to recommend the following:

a. That family fun be encouraged. The committee suggests that this be done at district meetings held to acquaint and train people in ways and means to have home fun.

b. That county-wide recreation training programs be carried out in all organizations and through the schools.

c. That a training meeting showing how to make games be made possible for the families.

2. Older Youth

Older youth need opportunities to develop leadership. the committee suggests:

a. That community centers be established where possible, and that the older youth have an opportunity to meet and form club. 4-H Clubs are desirable and offer this type of leadership.

b. That special training meetings should be held for the older youth to help them with leadership activities.

3. 4-H Clubs

There are 3,692 school boys and girls above the age of nine years that are eligible for 4-H Club work in Columbia County. This does not included the 666 grade school boys and girls in St. Helens. The enrollment for the home economics and agricultural 4-H Clubs is 322 members. Because of the many boys and girls that are not enrolled in club work, and because club work teaches through doing better agricultural work and home economics, and because it develops leadership, community pride, self-reliance aggressiveness, sportsmanship, and above all, it develops the

highest type of manhood and womanhood, and American citizenship, the committee wishes to recommend:

- a. That 4-H Club work be sponsored in every community.
- b. That an increase in the enrollment be made.
- c. That responsibilities of 4-H Club leadership be encouraged for men, women and older youth.

4. Schools

The committee wishes to recommend that parents have an opportunity to learn more about the functions of the school and the part which they play in their community in order to become good community citizens, and that supervised play for home and school be given special attention.

5. Hospitalization

Because Columbia County has a population of 20,971 and because there is not one hospital available to this number of people, and because every farm family should have an opportunity to have the services of a hospital, the committee wishes to recommend that a hospital be established to serve people in the county.

6. Recreational Parks

Parks play an important part in family and community life. In Columbia County there are five such recreational parks. They are as follows:

The Big Eddy Park, on the Nehalem

The Wilkerson Park, on Oak Ranch Creek

The Hudson Park, in the community of Hudson

The Natal Park, which joins the Natal Grange areas

The Zellerbach Park, along the Nehalem.

Because we have the above mentioned parks, and because they are so important to family and community life, the committee wishes to recommend that farm families of Columbia County encourage the establishment of new parks, and protect the ones they already have.

A SURVEY OF COLUMBIA COUNTY AGRICULTURE

Compiled in 1925 from available
national, state, and local records.

Population Statistics (U. S. Census)

Table I

Census Year	Per sq. mile	Number	Percent Increase
1860		532	
1870		863	62.2
1880		2,042	136.7
1890		5,191	157.2
1900	9.2	6,237	20.2
1910	16.0	10,580	69.6
1920	21.1	13,960	31.9
<hr/>			
State (1920)	8.2		
1930		20,047	43.6
1940	32.5	20,971	4.6

COLUMBIA COUNTY
Number of Farms, Land Area, Etc.
 (U. S. Census)

Table II

Census Year	No. Farms	Acres in Farms		Total	Percent Ind. area in Farms	Percent Farm Ind. Improved	Average Acreage per Farm	Average Impvd. Acres per Farm	Total Land Area in County	Percent Total Area Improved
		Improved	Unimproved							
1930	1,667	29,847	88,757	118,604			71.1		413,440	
1935	2,007	33,237	92,443	125,680			62.6		413,440	
1940	2,060	39,898	98,187	138,085	33.4		67.0		413,440	
1945	2,101	39,635	120,707	160,342	38.8		76.6		413,680	

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Value of Farm Property
 (U. S. Census)

Table III

Census Year	No. Farms	All Farm Property	Percent Increase	TOTAL FARM VALUE			Imp. & Mach.	Livestock	ACREAGE VALUES PER FARM				
				Land	Buildings				All Property	Land & Buildings	Land (A's)	Imp. & Mach.	Livestock
1930	1,667	\$11,572,274	30.3	\$7,118,767	\$2,828,062	\$ 667,395	\$958,050	\$6,941	3,967	4,270	400	575	
1935	2,007												
1940	2,060	\$9,593,884	20.6	\$5,515,315	\$2,602,771	\$ 691,592	\$784,206	\$4,657	3,941	2,677	336	381	
1945	2,082	\$12,060,470				1,126,040							

COLUMBIA COUNTY

Income from Sale of Farm Products (U. S. Census)

TABLE IV

	1940	1945
All Farm Products	\$1,651,312	\$3,949,674
All Farm Products Sold	1,241,558	3,434,084
Crops Sold	340,519	1,337,358
Fruits and Nuts	42,996	105,718
Vegetables Sold	46,508	390,325
Horticultural Specialties	3,710	74,108
All Other Crops	242,305	767,207
All Livestock Products Sold	882,614	2,046,593
Dairy Products Sold	450,802	1,176,334
Poultry and Poultry Products	154,617	378,320
Livestock and Livestock Products	277,195	491,838
Forest Products	18,425	50,133

COLUMBIA COUNTY

Livestock Development (U. S. Census)

TABLE V

Census Year	Livestock Total Value All	No. Farms Reporting	Number	Horses Value	No. Mules	Value	No. Asses & Burros	Value
1860	\$ 73,408		220		8			
1870	68,593		307		28			
1880	77,135		436		5			
1890	229,140		924		18			
1900	320,757	745	1,630		35			
1910	417,660	767	1,650	\$177,395	10	1,475		
1920	1,042,644	993	1,884	189,762	28	2,965	2	\$30
1930	958,050		1,622	122,570	54	3,331		
1940	784,206		1,550	114,731	102	7,650		

Note: Valuation figures previous to 1910 include poultry.

Working Oxen, not included in above totals:

1860.....	200	1880.....	183
1870.....	158	1890.....	3,353

COLUMBIA COUNTY

Livestock Development (U. S. Census)

Table VI

Census Year	All Cattle		Beef Cattle		Dairy Cattle		Sheep		Goats		Swine	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
1860	2,213		1,270		743		743				705	
1870	2,027		1,145		724		1,602				1,206	
1880	2,123		1,053		877		1,566				1,120	
1890	5,755		3,332		2,070		1,362				2,070	
1900	8,024		4,680		3,344		2,521		267		3,232	
1910	7,802	\$218,782	3,287		4,515		1,752	\$ 5,631	239	\$561	2,068	\$13,816
1920	9,737	747,709	2,019	\$130,452	7,718	\$617,257	2,207	23,679	99	611	3,802	77,888
1925	11,399		715		10,648						1,999	
1930	11,277	715,630					2,618	20,349	1868	7379	1,160	20,499
1935	13,191						2,216		1208		2,050	
1940	15,000	580,729	2,000		12,080		2,400	11,744	994	2185	1,729	16,766
1945	18,445		5,000		13,445		2,142		793			