Reports of the
 COOS COUNTY AGRICULTURAL ECONOMIC CONFERENCE

Coquille, Oregon, November 16, 17, 1925.

Suggesting an
AGRICULTURAL PROGRAM
for
COOS COUNTY

Prepared and Distributed by
C. R. Richards, County Agent.

Co-operative Extension Work in Agriculture and Home Economics, Oregon Agricultural College and U. S. Department of Agriculture, Co-operating.
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FOREWORD

This bulletin is published in order to preserve a record of the recommendations and statements prepared by the various groups that made up the Coos County Agricultural Economic conference. This conference was one of a series of seventeen similar events that have followed the State Agricultural Economic conference held at Corvalis in January, 1924. At that time a state agricultural program was adopted, based on a careful study of production and marketing of agricultural products, and a decision was made to hold county conferences in order to adapt the state program to local conditions.

The Coos County conference was organized along commodity lines, and each major agricultural enterprise was represented; namely, dairy, farm crops, poultry, fruits, livestock and vegetables. Decision to hold this conference was made on August 21, 1925, when a group of local farmers and business men representing cheese factories and creameries, the canning industry, the county bankers' association and dairymen, met at Coquille with representatives of the Oregon Agricultural college. This group included A. O. Rogers, Marshfield, chairman; J. A. Larson and Ivy Condron, Marshfield; E. L. Clausen, Broadbent; John Carl, Arago; S. S. Reed, Frank McCracken and A. C. Chase, Myrtle Point; J. F. Deveraux, Bandon; Arthur Brown, McKinley; H. E. Hess, N. C. Kelley and O. C. Sanford, Coquille; and C. H. Waymire, North Bend.

Committees of local growers arranged for gathering needed information, and took a leading part in their respective commodity groups. These groups were assisted in preparing their reports by specialists from the Oregon Agricultural college, who made available the information developed at the state conference and other data in the fields of agricultural production and marketing, especially the trends in other counties in Oregon and other states of the nation with which Coos county products are in competition.

Singly, these reports are a guide to the best practices in the production and marketing of the county's principal sources of agricultural income. Together, they constitute a program for Coos county agriculture. They represent the best judgment of those who participated in the conference. It is not presumed, however, that the recommendations are final or that they are not subject to revision. On the contrary, it is assumed that as conditions change and progress is made these reports should be adapted to new conditions.

About 150 local producers took part in this conference.

It is hoped that all who are interested in the welfare of Coos County will individually and through their organizations study these reports and use them as a guide for the best development of local agriculture. The conference was a beginning. Its real value depends upon the extent to which communities, organizations, and individuals make use of its findings.
Report of the Dairy Group

I. PRESENT SITUATION

The dairy group of the Coos County Economic conference, recognizing that dairying is one of the most important enterprises of the county, wish to call attention to a few facts concerning that industry upon which their recommendations are based.

1. Increased Production is Result of Higher Producing Cows.

The 10,750 cows in the county are no more than in 1920 and but few more than in 1910. Increase in production has come through increased production per cow, rather than the number of cows. This increase per cow has amounted to 20 pounds of fat per cow since 1910.

2. Production of 250 to 300 Pounds Fat Necessary for Profit.

The average production of cows in the county is 195 pounds of fat. This is about 25 pounds more than the average of all cows in the state but is 50 pounds less than the average of one of the other counties. The average in Coos County is doubtless below the production average necessary for a profit on all cows, as dairymen are of the opinion that under present conditions an average production of 250-300 pounds of butterfat per year is necessary to insure a profit.

Steps are now being made to improve the production of the cows of the county, through cow testing associations which are testing 1800 cows and through the increased use of pure bred sires, 80 percent of which are now estimated to be pure bred. The number of cows being tested for productive ability can be considerably increased. Although the percentage of bulls of pure-breeding is above the average of the state, improvement can still be made. The exclusive use of pure bred sires is not impossible of attainment.

3. Average Herd Numbers 12 Cows.

The average herd size is 12 cows. This is larger than the average herd for the state, but where feed conditions justify, savings in labor and overhead costs are made in herds of larger than average size.

4. Spring and Summer Dairying Predominates.

Feed conditions are particularly advantageous to dairying. Pastures have a relatively high carrying capacity, high yields of silage, roots and hay are obtainable and on some soil types good grain yields are also obtained. While spring and summer dairying is the prevailing practice as evidenced by the fact that 85 percent of the yearly dairy receipts at the manufacturing plants are obtained during the seven months from April to October, yet there is some indication that in certain areas, the amount of winter dairying is increasing. Whether to “winter” or “spring” dairy is an individual farm problem, as winter dairying is only possible where feed conditions justify, such as the growing of roots or silage, and hay. Under these conditions profits are possible through a better distribution of labor and increased selling price of product.


There is an appreciable shortage of hay produced in the county for the dairy. In 1924 this amounted to over 2,500 tons. In view of the recent development in vetch and alfalfa growing, this shortage can doubtless be almost eliminated. The advantage of legumes over other hays for dairy feed-
INCREASE
IN
DAIRY PRODUCTION
COOS COUNTY
(U.S. CENSUS FIGURES)

LEGEND:

- □ = No. of Producing Cows.
- ■ = Production Per Cow in Pounds.

COMPiled BY O.A.C. EXTENSION SERVICE.
Avera Milk. Production Per Cow

Average Milk Production Per Cow

Based on 1926 Census.

- Over 5000 lbs. Milk
- 4000-5000 lbs. Milk
- 3000-4000 lbs. Milk
- Less than 3000 lbs. Milk

ing is such that no possibility of growing them should be overlooked. High yields make possible the growing of corn for both silage and soiling. Root crops make dairying in the fall and winter possible and the use of corn and other green crops can be of considerable value in supplementing pastures during the late summer months.

6. Grain for Better Cows is Good Practice.

Grain feeding to the better cows as a supplement to pasturing, especially to late summer pastures, has proven to be advantageous on some of the more successful farms. The growing of some grain for feed has proven advantageous on farms having lands available.

7. Value of Manure Pits Not Recognized.

Apparently the value of the manure pit is not generally recognized in the county. In other sections of the state vetch and clover hay yields have been increased one third by the judicious use of manure. Heavy applications of manure with 400 pounds of super-phosphate per acre have increased root yields more than 100 percent. In moist areas it has been found that applications after November 1 and before March 1 have been practically wasted. It therefore appears that the manure pit can be advantageously used in this county.

8. Twenty Percent of Raw Product Grades No. 2.

The county's dairy products are manufactured into cheese, condensed milk and butter. But the county is best known through its cheese, having won during the past two years highest awards at 12 contests.
The success thus attained was accomplished through standard methods of manufacture and uniformly good raw product coming from the farms. There is still considerable room for improvement in this regard, as manufacturers estimate that there is yet 20 percent of the raw product that is classed as second grade. When it is realized that a number two product in the manufactured form takes a price of from two to five cents less per pound than number one, and that this may mean a loss of $25,000 to $100,000 on the county’s entire production, it should stimulate dairymen and manufacturers to co-operate in eliminating this 20 percent of No. 2 production.

The history of successful marketing of manufactured dairy products in other states and counties of this state indicates that the standardization of as few brands as possible has a decided advantage.

Unless combated with advertising of the superior qualities of dairy products together with scrupulous care as to quality of products sold, continued importation of South Sea vegetable oils which are used in the manufacture of so called butter substitutes, will become a serious menace to the dairying of this country and to agriculture as a whole. Dairy interests of the state and nation could advantageously increase the advertising of their products and there should be no let up on the campaign for the manufacture of products of superior quality.

II. DAIRY RECOMMENDATIONS.

In view of these facts we recommend—

1. That a county dairy inspector be appointed and maintained by the County Court to the end that the quality of dairy products be improved.

2. That the cow testing associations now in operation receive our continued support and that their operations be extended as far as possible and, further, that dairymen now owning inferior sires avail themselves of the present low prices of good sires and obtain the best ones possible.

3. That all agencies directly interested in dairying co-operate in the production of products of the highest quality.

4. That the conference chairman appoint a committee of three to investigate the use of canary grass in a mixed feed.

5. That all agencies of the county co-operate in any well directed effort to further advertise dairy products in the state and nation.

6. That the possibility of raising legume hays be investigated by each dairymen and that all demonstrations of these crops be watched to the end that this type of crop be utilized to the fullest extent.

7. That the uses of manure pits be increased in the county and the dairymen avail himself of plans obtainable through the county agent.

8. That greater consideration be given the value of “rotation grazing” of pastures and, further, that full use be made of cow testing records in determining the value of grain feeding both with and without pasture.

Signed: —

Jos. A. Larson, Chairman
J. D. Carl
John P. Devereux
W. L. Kistner
C. P. Coleman
Lester A. Bogard
E. H. Harnden
A. O. Rogers
Coos County has proved to be well adapted to the production of several seed crops. In some lines it is or may be a large user of seeds many of which may as well be locally grown. Coos County is now one of the well known districts for purple vetch production and is the country's largest producer of creeping bent grass and Reed's canary grass seed. There is room for expansion of the seed growing industry and several safeguards must be thrown around the business to properly protect it and make it a continued success.

Hungarian Vetch

This is a new vetch introduced by the Oregon Experiment Station and adapted to lands slightly too sour for common vetch, lands a little too wet for common vetch, and areas susceptible to serious aphid injury. The acreage in this vetch should be increased and fall sowing should be made on uplands to supply Coos county with seed. It seeds at from 15 to 35 bushels an acre.

Purple Vetch

This vetch has a place in the agriculture of the county, being produced for sale as a source of cover crop and green manure crop for California orchards. It is also used as a hay crop on sour lands in Coos County. It is a good vetch for spring sowing where the land is too sour for common vetch. This is especially true for uplands.

Purple vetch as a seed crop is best adapted to uplands. It averages about 800 pounds of seed an acre. A minimum price is 6c per pound to the grower and at this price it is well within the reach of the California orchardist. There is now produced about 140 acres for seed and the acreage can be enlarged safely. Safe expansion must be in localities where threshing and cleaning can be done early so the seed can reach California in time for fall sowing. Seed growers should probably pool their interests in order to arrange for prompt shipments and secure some standard quality of seed and standard grades for delivery.

Tangier Peas

This crop is well suited to both upland and bottom lands. It seems a very promising silage for the county when grown with grain as a supporting crop. On the upland the seed yields have been good. It is recommended that arrangements be made for more seed growing trials on upland with a view to supplying local needs for forage at a reasonable price and also to secure a better idea on costs of production with a possible California seed market in view.

Burr Clover

Climatic and soil conditions seem well suited to burr clover as an upland pasture and possibly a seed crop. Limited opportunities for observation show that it grows well in the county. It should be tried out thoroughly for winter and spring pasture on upland as well as to see its seed producing possibilities.

Bent Grass

Coos county is unique in having several hundred acres of an unusually pure stand of a native true creeping bent grass called Seaside bent (Agrostis
maritima). Through the work of Lyman Carrier it has been advertised and tried out and found to be successful as a lawn and golf course grass. The seed is far superior to other available types of bent grass. Because of its remarkable similarity to red top seed the only safe way to keep this Coos County grass seed on the market pure is to control it here at the supply and to harvest and clean it here and send it out in sealed containers sealed and certified by the Oregon Agricultural College. This will involve field and threshed seed inspections and will safeguard the industry. As the industry is not large enough for a group of seed firms to maintain representatives here and to have threshing and cleaning facilities here, it is recommended that the growers of the seed unite for the purpose of pooling their interests for mutual protection and the protection of the reputation of the grass seed as well as the future market. This pool of growers for the certification and sealing of the fields and threshed seed, for a suitable schedule of prices to be paid for hay or seed of different quality and for disposition of the seed is the best arrangement both from the standpoint of present returns and in the long run.

Reed Canary Grass.

This is another industry practically confined to Coos County. With the development of better harvest methods seed selling arrangements similar to those proposed for bent grass should be developed.

II. SEED CROP RECOMMENDATIONS

1. We recommend that upland growers plant enough Hungarian vetch to supply local needs. In view of the twenty tons shipped in this year and probable increases next year, this would call for 40 to 60 acres.

2. We recommend the expansion of the purple vetch acreage to at least double that of the present time.

3. We recommend the county agent arrange Tangier pea seed production demonstrations to supply local needs and prepare the way for a possible seed business.

4. We recommend that the county agent arrange an extensive series of burr clover demonstrations on upland for pasture and seed production.

5. We recommend that a pool of bent grass seed growers be developed and that the county agent arrange with leading growers and others interested, to call a meeting of interested producers for that purpose.

6. We recommend similar work for Canary grass growers as that industry develops.

7. We recommend that arrangements be made to assure a suitable supply of the varieties of oats and other forage seeds needed in the county.

POTATOES

I. STATUS OF THE INDUSTRY

Soil and climatic conditions are favorable to potato growing in many of the mellow soils of Coos County. This survey of conditions shows an average return of 153 sacks per acre. Production varies from 86,000 to 104,000 bushels a year. In 1924 with the 86,000 bushel production 73 cars of potatoes were shipped in by Coos County dealers. Reasons advanced by dealers for shipping in outside potatoes are that the grading of the locally grown crop is unsatisfactory and the keeping quality is not good. Observations show that many damaged potatoes are being included wrongly in the
INCOME FROM SALE OF FARM PRODUCTS
COOS COUNTY — 1919
U.S. CENSUS FIGURES
TOTAL — $2,144,000

LIVESTOCK & MEAT
$480,000
22.4%

FRUITS & NUTS
$132,000
6.1%

DAIRY PRODUCTS
$1,258,000
58.5%

VEGETABLES
$120,000
5.9%

CEREALS
$72,000
3.4%

COMPILED BY O.E.C. EXTENSION SERVICE.

No. 1 grade of potatoes and this is probably the reason for poor keeping quality and unsatisfactory grading. The survey also shows that too many varieties are being produced. This hurts the sale as several are poor cooking varieties. With standard varieties and proper growing in rotation or on new ground and careful sorting Coos County should grow all her own potatoes and can readily grow for the California trade.
II. POTATO RECOMMENDATIONS.

1. That the potato grading law be strictly enforced on all potatoes sold in the county and state.

2. That County Agent Richards arrange for potato grading demonstrations in the principal potato growing sections.

3. That Coos County merchants and consumers of potatoes give preference to well graded home grown potatoes and keep Coos County money at home.

4. That low top Burbank potatoes be adopted as the standard main crop variety.

5. That certified seed of the low top Burbank variety be introduced and grown on new land not less than 300 feet from any other potatoes and that County Agent Richards be instructed to keep in touch with such new lots of seed and to survey present lots of good Burbanks and arrange for a certification man from the extension service to examine them and certify them if possible.

FORAGE CROPS

HAY.

Statistics show that in 1924 Coos County imported 167 carloads of hay by rail and 750 tons by boat. It is stated that 50 percent of the hay shipped in is used by the dairy industry and that the remainder is used by logging camps.

Vetch, clover, alfalfa, grain and cheat hay are shipped in. It is the recommendation that all types of the hay shipped in except alfalfa may be produced on the upland soils as they are developed. It is recommended that grain hay be omitted from the county agricultural program and that the needs for vetch or vetch and grain hay and for clover hay be met by enlarging the acreage in Coos County.

SUMMER GREEN FEED AND SILAGE.

Records of receipts of milk in Coos County as well as other coast sections show it to be seasonal and to have periods when production is very low. Records of production by Mr. Alton Kay and at the Astoria experiment station show that green feed or silage to supplement pasture or for winter feeding maintains a higher production. Mr. Kay’s results from bottom land on which he produces vetch for silage indicate an average tonnage of 15 tons of vetch and oats an acre and when converted into dairy products a gross value of about $200.00 an acre. Where pasture or green feed or silage are used it is recommended that rations be properly balanced by the feeding of suitable concentrates.

For bottom lands, Hungarian vetch and field peas, both grown with oats, are recommended for silage and in some cases for summer green feed. For the sections better drained and warmer, corn is the leading silage and feed crop. For upland areas too cool for good corn, early summer planted Japanese barnyard millet is recommended for summer and fall feed. For fall and winter succulence, mangels and possibly rutabagas and turnips are recommended. It is further recommended that the county agent advise dealers of suitable standard varieties to stock for seed purposes.

PASTURES

For bottom land pasture there seems little to recommend other than the canary grass and the bent grass.
For upland pasture the following things seem essential:

1. Such pasture should be fall seeded after a good burn.
2. The use of prepared burn mixtures is a waste of money as they are principally made up of waste seeds.
3. A standard mixture including some good sod-forming grasses should be secured. The sod formers make a more permanent grass pasture and seem to resist the encroachments of brush and ferns.

We recommend that if necessary arrangements be made for legislation to make the securing of permits to burn more satisfactory and less difficult during the fall burning season.

We recommend that all burn mixtures be required by law to contain a true statement of their exact purity and germination.

We recommend that the county agent carefully determine the most suitable grasses for logged off land seeding and arrange for some local supply of such seed of known purity and germination.

In other words adopt a standard mixture for Coos County and establish through local agencies a suitable supply.

**LIME**

The importance of lime in connection with successful legume culture has been repeatedly demonstrated in the coast district and to some extent in Coos County. Declining stands of clover and vetch failure in some districts are doubtless due to lime deficiency.

Lime from the State Lime plant at Gold Hill costs from $6.40 to $7.40 a ton at Coquille and when applied at one to two tons an acre is rather expensive.

As these legumes are so important on all our soils, and especially the uplands it is recommended that a cheaper lime supply is essential to the better agricultural development of the county.

To this end the committee recommends that the Shell lime supply in the county be thoroughly investigated as a possible source of agricultural lime.

It is further recommended that a committee including Mr. A. O. Rogers of the port commission be appointed to investigate the possibilities of this shell lime supply and, if it seems feasible, to arrange through the Port or the County Court or the State Lime Board or some other agency to develop this agricultural lime.

Signed,

O. H. AASEN, Chairman
ALTON R. KAY
ARTHUR BROWN
J. B. MOOMAW
Report of the Fruit Group

I. THE SITUATION

Seventeen carloads of fruit were shipped into Coos County during 1924. Probably again this much or more came in by truck. The cannery at Myrtle Point could handle twelve or fifteen thousand more cases each of loganberries and strawberries, eight or ten thousand more cases of evergreens, seven or eight hundred more cases of pears, five hundred more cases of plums and a lot of black raspberries.

Climate and soil of Coos County are well adapted to the production of many fruits. Most of this shipped in fruit can be displaced by locally grown stuff. All of that wanted by the local cannery can be successfully grown within the county.

Probably the greatest handicaps to horticultural development in Coos County are the farmer who plants an orchard or small fruit planting and the village or city man who has a few fruit trees and a little small fruit on his lot, who neglect them and allow the insect and disease pests to multiply and spread to the surrounding territory.

With everything right for this development but ourselves, your committee thinks we should get right and upon the strength of that belief we make the following recommendations:

II. FRUIT RECOMMENDATIONS

1. Apples.

Apple production on a commercial scale has been established since the seventies in Coos County. The fruit has been successfully marketed on our local markets in competition with that shipped in from the larger apple producing districts. The Gravenstein, Grimes Golden, King, Delicious, Spy, and Summer Rose are the varieties best adapted to local conditions. Many other poorly adapted varieties are all too prevalent in our orchards.

The care of most of our orchards is destructively poor and has resulted in less than one hundred bushels per acre average in the county for the last five years. Uncared for apple orchards or trees are harbors for scale, anthracnose and many other transferable pests and are a real menace to the well run orchards. They act as deterrents to the development of the apple industry of the county.

Having these facts in mind the committee recommends as follows:

(a) All uncared for orchards should be cleaned up and hereafter given the proper attention or be destroyed.

(b) All orchards producing less than one hundred and fifty boxes per acre are being run at a loss and should be brought up to this state of production or be pulled and the land used to better advantage.

(c) Orchards containing varieties not adapted to local conditions should be topworked to better suited varieties if the trees are young and in a vigorous state of health, or be destroyed.

(d) Increased plantings of commercial size of the above named varieties sufficient to supply our local markets are recommended to growers who are willing to give the exacting attention required for successful apple production.

(e) Due to their pleasure and health giving qualities increased consumption of apples in Coos County homes is recommended.
2. Pears.

Local conditions, although particularly suited to the production of many fruits, are not the best for pear production. It is the opinion of your committee that the acreage of this fruit should not be increased, but the existing acreage be retained if cleaned up and kept in a production state.

3. Prunes and Plums.

Prunes are successfully grown in this county. They are just as successfully harvested for the fresh fruit market but not so well for drying purposes. The Italian and Silver prunes and the Green Gage plums are all grown and well suited to our local conditions.

An increased acreage of the above mentioned varieties sufficient to supply the needs of our local fresh fruit markets and cannery is recommended. New, untried varieties should not be planted in any quantity.


The local markets use large quantities of sweet cherries. These are largely shipped in from outside the county. The cannery is in position to use a tonnage of Royal Anns. Cherries are adapted to local production. The low average production of less than twenty-five pounds per tree within the county is due to poor care and lack of pollenizers. After taking these facts into consideration the committee recommends as follows:

(a) An increased acreage of Royal Ann, Bing and Lambert varieties, with sufficient pollenizing varieties, to supply the needs of the local fresh fruit and cannery markets.

(b) All cherry orchards and trees should be cleaned up and given proper care or be destroyed.

(c) Pollenizers of proven worth to be planted near or grafted into unproductive trees of the above mentioned varieties.

5. Peaches.

This fruit is being successfully grown in the more favored localities in the county. It is in demand on our local markets for both fresh consumption and home canning. To meet these needs your committee recommends an increased planting of Early Crawfords, J. H. Hale's, Elbertas and Muirs in favored spots.

6. Walnuts and Filberts.

Nut growing in Coos County is still in the experimental stage. But few walnuts and filberts are produced here and many of these under very trying conditions. The filbert is probably well suited for local production. The walnut is at least questionable but worth testing.

Your committee recommends no large plantings of either, but the trial in small way of the Franquette walnut and the Barcelona filbert with its required pollenizing varieties of filberts. Deep, well drained, fertile soil is recommended for either.

7. Strawberries.

Strawberries are in demand on our local markets and by our cannery. They are very successfully grown here. The fresh fruit markets will use the Gold Dollar as an early berry and the Oregon and Marshall as regular season varieties. The cannery will use an almost unlimited quantity of the Ettersburg 121 variety for canning purposes. This is the best variety for canning purposes and is well adapted to local production. The adaptability
of this variety is very limited. The Marshall is acceptable to the cannery as a second grade canning berry. There are also great possibilities with the Oregon and Marshall varieties for barreling purposes.

The strawberry root weevil has become a serious menace to the Pacific Coast Strawberry industry. Many districts are heavily infested with this insect. Plants coming from these districts carry the insect with them. It is against the state law to sell or give away plants without official inspection.

With these facts in mind the committee recommends the following:

(a) An increased acreage of Ettersburg 121, Marshall, Oregon and Gold Dollar varieties sufficient to take care of local fresh fruit markets and cannery needs.
(b) Nothing but plants inspected and found to be free of root weevil should ever be planted in the county. These should be planted on land free of root weevil. This usually means on land where strawberries have not been previously grown. Do not give nor accept plants from your neighbor without this inspection.

8. Loganberries.

The demand for canned loganberries is increasing. Many acres of them have been destroyed in both Oregon and Washington. Coos County is particularly well suited to the production of this berry.

For these reasons your committee recommends:

(a) Better care of the existing acreage within the county.
(b) Yields of four or five tons or more should be secured.


This berry is growing in popularity with the berry growers in both Western Oregon and Washington. It is proving to be one of the biggest money makers among the berries in both states.

It grows to perfection in this county and the committee is of the opinion that it should be given a trial.


This fruit grows to perfection in Coos County. The present demand is good both from the fresh fruit markets and the processing markets. The Munger is a proven variety for the county. Probably the Cumberland and Plum Farmer will prove just as satisfactory.

Many of the older Black Cap districts have gone out of production due to a number of contagious, systemic diseases. These diseases have already secured a foothold in the Northwest.

Having these facts in mind the committee recommends:

(a) An increased acreage sufficient to care for the needs of the local fresh fruit markets and the cannery.
(b) The planting of nothing but disease-free plants.


This berry has not proved itself for this county. Yields of the Cuthbert, our standard variety, have been very unsatisfactory. Your committee feels that an increased planting of this fruit should not be among our recommendations.

Signed—

A. C. CHASE, Chairman.
Report of the Livestock Group

The production of livestock, on all farms of the country, is based on the available feed supply. That is, the amount of grass, hay and grain available to economically grow meat and wool.

During the last five year period there has been a reduction of about sixteen percent in the number of beef cattle in Oregon. This same condition apparently extends through the eleven western states. On the other hand the same per capita consumption of beef has been maintained.

The world supply of cheap range for grazing sheep has been taken up. This puts any possible expansion in sheep raising on farm flocks or changing from cattle to sheep on ranges now in use. Under the influence of high prices for lambs and wool there has been an increase in the number of sheep carried in New Zealand and Great Britain. In the United States there has not been any appreciable increase in numbers. However, recent years show an increase in wool returns and a larger number of lambs than was true twenty years ago. The United States is a heavy importer of wool.

The hog situation in the United States is at present on a fairly good basis—although reports indicate a shortage. A check on numbers, however, would point to the fact that there will be plenty to go around. In Oregon and Coos county less hogs are produced than are consumed because of the high production cost when raised on a grain alone basis, where the grain must come from a distance under a high freight rate.

In considering the local livestock situation, we find that there are 5,000 beef cattle, 5,600 sheep and 3,500 hogs in this county.

It is an important economic fact that there is a large area of cut over land in Coos County, suitable for seeding to grass for grazing of livestock. The experience of our local stockmen in the past has been that this type of pasture is very satisfactory for a period of years until brush overcomes the grass. It is to the interest of Coos County stockmen, that this land be studied and managed in such a manner as to prolong this grazing period. With these facts in mind, the livestock committee wishes to recommend a concerted effort on the part of stockmen to organize their management of these lands such as burning, seeding, grazing and the use of such mixtures as will bring the best results and to work in close co-operation with the lumber companies, state forestry department and all concerned in the establishment of this end. It is the feeling of the livestock committee that this land is more suitable for sheep than cattle.

Experience has taught that seeding to be most effective must follow immediately after the burning. There are laws governing the setting of fires in Oregon during the dry seasons. It is recommended that all persons concerned and who are interested in establishing grazing, thoroughly familiarize themselves with the provisions of these laws as there are qualifications which might be granted by the local warden to suit the case at hand.

Predatory animals are a source of loss to sheep owners of the county. It is recommended that fences and government hunters be used to control this menace.

It is recommended that further and continued improvement be carried on with beef cattle, sheep and hogs through the use of the right kind of pure bred sires.

Signed—

H. E. HESS, Chairman.
Report of the Poultry Group

I. THE SITUATION

According to the U. S. Census of 1919, the value of poultry and eggs produced in the county was $120,568.00. Coos County ranked nineteenth in the state in value of poultry produced and sixteenth in value of poultry products sold from its farms. Only three per cent of the total income from agricultural products was derived from the sale of poultry products.

Since 1919, there has been a gradual increase in poultry production in the county. This increase has resulted from the establishing of several commercial flocks, rather than an increase in farm flocks. The poultry industry gives evidence of further expansion and at the present time the census figures do not show the true situation.

Poultry keeping, whether a specialized business or a major side line on the farm, is a technical business. It is not a business for which every one is adapted, due to the necessary details of management. There is no reason to assume that any higher percentage of people will succeed in the poultry business than in any other business.

More people would prosper in the poultry business if the principles of management were made available for the new beginner to study. It has been the intent of this poultry group to study the poultry industry of Coos County from many angles; to incorporate in this report the advisabilities of expanding the industry; and outline methods of management which will make such expansion safe and profitable for those who choose to engage in it.

II. MARKET POSSIBILITIES OF COOS COUNTY POULTRY PRODUCTION

Poultry keeping, when intelligently managed, has proved a profitable crop each of the post war years of agricultural deflation. Coos County does not produce enough eggs to meet the consumption demand of its inhabitants. Twelve carloads, or 5,647 cases of eggs were shipped into the county in 1924.

The State of Oregon, taken as a whole, produces a surplus of eggs. The surplus of the state is marketed successfully by the Pacific Co-operative Poultry Producers Association, thus benefiting all poultry producers by making an unglutted market for the volume not controlled.

A survey of the national market situation does not show any cause for alarm.

III. RECOMMENDATIONS OF POULTRY GROUP

1. Reasonable Expansion Justified.

In view of the fact that poultry producers have found Coos County well adapted to commercial poultry keeping; that the market is under produced; that the state and national situations are favorable; the poultry group recommends a reasonable expansion of the industry in the county, provided such expansion is governed by the principles of management as outlined in this report.


On farms that are not interested in poultry or where other farm work does not provide surplus labor, it is recommended that such flocks as are now carried be reduced to the small number necessary to supply only the needs
of the home table. During the flush season a great volume of inferior eggs, from poorly managed farm flocks, is "dumped" on the market.

3. **Flock of 500 as a Sideline Business.**

On farms where labor is available each day of the year, where green feed can be provided at all seasons, and where capital is available for necessary outlay in starting the business, it is recommended that during a two or three year period a flock of 500 hens and pullets be established as a sideline business.

4. **Flock of 1,000 for a Commercial Unit.**

As a major activity or specialized commercial egg farm, where one man expects to derive his major income from poultry, it is recommended that as soon as experience warrants, a minimum unit of 1,000 hens and pullets be established.

5. **50 Percent Pullets.**

In commercial poultry farming or as a sideline business, the poultry group recommends that the percentage of the flock each year consist of approximately 50 percent pullets and 50 percent hold-over hens.

6. **Purchase Chicks Early.**

The producers of commercial eggs must have the benefit of fall and winter prices to get a higher average price for the year's production. They must get fall and winter production from pullets in order to get the longest period of lay before the natural moulting season.

This committee strongly recommends that producers get the chicks early enough in the spring to be old enough to come into flock production by October. It is suggested that the most desirable time to secure chicks of lighter breeds is from the middle of March to April 15.

Heavier breeds should be secured earlier as they require a longer time to reach maturity.

7. **Buy All Chicks at One Time.**

It is false economy to attempt to brood and range together chicks of different ages. It is better business, for example, to secure 500 day old chicks at one time, where 200 pullets are desired, than to attempt to secure this number from several hatchings of small capacity incubators. It is therefore recommended that producers get all chicks at one time where only one brooder and one range are available.

8. **At Least 15 Acres for Each 1,000 Hens.**

The greatest undermining factor in the poultry business is soil contamination. This results when large numbers of fowls use the same soil area too long. The greatest danger applies to yards or ranges used for brooding chicks and rearing them to maturity. A lack of acreage contributes to poultry farm failures. Real estate agencies should not exploit two and three acre tracts for intensified poultry farms where young stock is to be reared each year. It is hereby recommended that commercial poultry keeping should not be attempted on less than 15 acres of ground for each unit, of 1,000 hens.

9. **Locate Permanent Brooder House so as to Provide Two or More Yards.**

Poultry producers will succeed according to their foresight and ability to rear healthy, mature pullets. Clean soil must be provided for brooding and ranging young stock, if intestinal parasites and diseases are avoided.
On farms where hill land makes undesirable a 10x12 ft. portable brooder house for 500 chicks (described in Experiment Station Circular 52) a permanent brooder house becomes a necessity. In such cases it is recommended that the permanent brooder house be located on a given area so that two or more yards may be provided. Under this system it is understood that only one yard is to be used each year in its logical turn. As soon as the pullets are old enough (8 to 10 weeks) they should be removed from the brooder house and brooder yard and taken out on free range not used the previous year.


Pullets should have plenty of ventilation during their development period out on range. Brooder houses used for range houses soon become crowded. It is recommended that producers guide their construction of range houses by the plans for "The Open Air Range House" (Experiment Station Circular 54). This type of house has proved satisfactory under Coos County climatic conditions.


Too many laying houses are constructed according to some untried hobby. Such houses may or may not meet climatic and production requirements for the flock.

It is recommended that producers consult the plan of poultry house recommended by Oregon Agricultural College (Experiment Station Circular 51) before building. (All poultry bulletins referred to may be secured from County Agent C. R. Richards.)

12. Root Crops as Green Feed to Supplement Kale.

Green feed is one of the four major classes of poultry feeds necessary for growth and egg production. It is hereby recommended that the poultry producers plant a small patch of root crops each year to be used as an emergency winter feed, in case of cold weather or shortage of kale.

13. Egg Grading Law is Favored.

The poultry commodity group desires to go on record as favoring the new egg grading law and its enforcement, which was passed by the last session of the Oregon Legislature. This law provides that all eggs that reach the ultimate consumer must be candled and sold according to quality and size.

14. Poultry farming has been exploited as an easy business, requiring but small capital and little experience. Such propaganda is unsound.

The poultry group desires to present a few facts in order to promote a common understanding.

The development of a large flock should be made gradually. Without previous experience, brooding a maximum of 500 chicks will be found a sufficient experiment. The approximately 200 pullets matured will provide enough expense and experience for the beginner's first year.

Where the farm and home are owned, and a poultry unit is to be established it will require an approximate outlay of cash or credit of $3.00 per pullet (the first six months). This expenditure is pro-rated as follows:
(a) Brooder House, brooder, fuel supplies per chick ...... $0.25
(b) Feed, litter, cost of chicks, mortality losses to 6 months of age, range house, per pullet ..................... 1.25
(c) Permanent laying house, material, labor, equipment, fencing, etc., per pullet .................................. 1.50

TOTAL .................................................................................................................. $3.00

The above statements show an approximate overhead minus labor, taxes, interest on investment and depreciation. They show the necessity of following a system of poultry farm management that will make the investment safe.

Signed—

JOS. A. HARVILLE, Chairman.
C. H. NEAL
C. H. WAYMIRE
S. B. LEEPER
S. H. CLINTON

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Extension Service — Oregon Agricultural College

RELATION BETWEEN PRODUCTION AND CONSUMPTION OF OREGON'S PRINCIPAL AGRICULTURAL PRODUCTS

Based on 1900 census

Solid black portion represents part of commodity required for consumption in the State. outlined portion represents exportable surplus. cross hatching represents amount of deficiency.

WHEAT
MILK
BEEF
PORK
EGGS
WOOL
POTATOES
APPLES
PEARS
SMALL FRUITS

PRUNES
Report of the Vegetable Gardening Crops Group

Your committee appointed to investigate and consider problems relative to the growing and marketing of vegetable crops in Coos County hereby submit the following report:

I. STATUS OF VEGETABLE GROWING.

1. No Surplus for Outside Markets.

At the present time the production of vegetables is confined to growing these crops for the various city markets of the county. A most important factor in the vegetable gardening business is the available markets for perishable products. The population in the city markets of the county is estimated at approximately 20,000, thus offering considerable outlet for vegetables that are home grown. No vegetables are yet grown in quantities sufficient for outside shipment. The problems of marketing vegetables in the county are therefore those of satisfactorily selling in the home cities.

2. Large Quantities of Vegetables Shipped In.

Quantities of vegetables are now shipped into the county from outside sources, train, boat and truck. Some of these vegetables cannot be successfully raised in the county because of climatic conditions but a considerable number of vegetables are shipped in which can be easily grown in Coos County, such as the following: Cabbage, cauliflower, celery, onions, lettuce, asparagus, rhubarb, spinach, broccoli and root crops.


We recognize that there are four essentials in the marketing of vegetables in the city markets of the county, namely:

(a) A well graded and packed product.
(b) The use of standardized containers or packages.
(c) High quality of the product.
(d) Regularity of supply in order to satisfy and hold the trade.

It is certain that local growers are losing opportunities of successful marketing in competition with shipped in products because of these important things. We feel that local growers have not yet realized the value of, nor yet practiced the art of careful grading and proper packing of vegetables. Irregularity of supply of a certain commodity is one of the reasons for the grower being unable at times to successfully dispose of his produce. It is our firm belief that not until local growers improve their marketing practices will they realize the greatest value of the home markets.

We wish to emphasize that in the local marketing of vegetables quality is paramount and that attractive packing and preparation for marketing are very important. Only on this basis can local growers compete with shipped in goods.

Vegetables will continue to be shipped into Coos County as long as the grower does not put up his produce in a standardized and properly packaged form. Local dealers have sought elsewhere for vegetables because they are unable to get these crops in a standardized package and with regularity.

The money paid for a large amount of vegetables brought into the county should be in the hands of local growers, in preference to giving to those of another county or state, except where absolutely necessary.
4. **Root Maggot is a Menace.**

Probably the greatest menace to certain vegetable crops in the county, particularly cabbage, cauliflower, broccoli and some root crops is the root maggot. This insect annually causes thousands of dollars worth of loss to growers. In many cases these crops are not grown at all because of the insect, when they could be successfully produced were the maggot not present. We recommend that a petition be sent to the Oregon Agricultural College explaining the losses due to this insect in the county and requesting assistance in experimental work looking towards the control of this pest, so that growers may be able to successfully produce the crops above mentioned which are well suited to climatic conditions of the county.

**II. VEGETABLE CROPS RECOMMENDATIONS**

1. **Growers Should Study Whole Situation Before Planting Vegetables.**

In view of the importance of successfully meeting competition with a regular supply of vegetables it is our belief and recommendation that a grower contemplating the growing of vegetables should produce enough of one crop or another, to be able to make an impression on the market and to make his supply regular. We recommend that growers contemplating vegetable production make a careful investigation before planting as to varieties, proper season of planting, most profitable seasons of selling and commercially recognized methods of grading and packing. These should be previously investigated and considered.

We favor more or less specialization in vegetable gardening with reasonable acreage of one or more crops rather than small patches of many crops, such specialization to be in accordance with the grower's soil and location.

2. **Broccoli Acreage Should be 75 to 100 Acres.**

This vegetable is well suited to Coos County but little progress has been made in growing it for carlot shipments. It is recommended that, outside of growing a sufficient quantity for the cannery and local consumption, the crop be planted to the extent of 75 or 100 acres or left entirely alone, inasmuch as it is necessary to have approximately this acreage to warrant the machinery necessary to ship the crop.

3. **Asparagus Acreage Can Be Safely Increased.**

It is estimated that not more than 5 percent of asparagus consumed in the county is grown here. There is, therefore, opportunity for expansion along these lines, up to possibly 20 acres. One year old plants of Washington variety should be used.

4. **Gradual Increase in Lettuce Acreage Favorable.**

Coos County is one of the best sections of the state for a long lettuce growing season. Our cool summers are favorable for growing summer lettuce. We favor a gradual increase of this crop not only for local consumption but also for car shipments to interior points, particularly during July, August and part of September.

5. **Good Celery Can Be Grown Here.**

At the present time but very little of the celery consumed in the county is produced locally. Under proper soil conditions this crop can be grown to very good advantage. It represents a branch of vegetable growing which is decidedly profitable. In view of the fact that excellent celery is
raised in the Willamette Valley it is necessary that a high grade of celery be grown in this county in order to successfully cope with this competition.

6. **Grow Our Own Onions.**

At the present time several cars of onions are annually shipped into the county. There is a sufficient amount of good soil in the county to amply take care of this local demand provided the location is carefully chosen and the variety of seed and season of planting are carefully considered.

7. **Oregon Baldhead Cabbage Best for Late Market.**

Coos County imports several cars of cabbage particularly during late winter, spring and early summer. Some of the cars arrive at a time when cabbage cannot be home grown. Other cars are shipped in when there should be a supply of home grown cabbage. We recommend for a late market the use of the variety Oregon Baldhead.

8. **Produce Sufficient Cauliflower to Supply Home Markets.**

The county is extremely well adapted to the growing of fine cauliflower which should be produced in sufficient quantities at all times to take care of local demand. We realize however, that the work of the maggot is a limiting factor in cauliflower growing. Growers have had best results in controlling this pest by the use of corrosive sublimate and cultivation close to the plant.

9. **Cannery Vegetables Encouraged.**

We are in favor of greater consideration being given by growers to the call of the cannery as a market for vegetables such as beans, beets, broccoli, carrots, rhubarb, etc.

We realize that this institution represents an important market in the county and one that shows reasonable prospects for expansion, resulting in benefits to growers of vegetables and small fruits.

10. **More Farm Gardens are Needed.**

Whereas the general farm in the county is capable of growing a wide range of vegetables for home consumption by the farm family; whereas, these crops are quickly and economically grown and are most helpful towards the health and economical living of the family, we recommend and urge more and better farm home vegetable gardens in the county, with a view of increasing the value of such gardens and providing ample supply of such food.

We discourage, however, the planting of a surplus of vegetables over and above the normal amount consumed by the farm family for the reason that in most cases this surplus is taken to the city markets and sold at a lower figure than existing market prices, thus glutting the market and seriously injuring the business of the commercial vegetable grower.

Signed—

S. STONE, Chairman.
Historical Sketch of Coos County Agriculture

Lands around Coos Bay were first taken up by members of the Coos Bay Company in 1853. In the next few years other settlers immigrated to this section of the state, notably those forming the Baltimore colony who settled in the upper Coquille Valley. The early settlement of the country was invited by rich, natural resources, mildness of coast climate, and opportunities for mining, lumbering, and general farming, which were found there. During recent years the lumbering industry has over-shadowed other lines of development. Agriculture has made a slow but substantial progress. See table Number 1. Production of crops has been largely confined to the bottom lands along the rivers and larger streams. At the present time these cultivated areas rank in productiveness and value with the best farming lands to be found anywhere in the Northwest.

The agriculture of the area may be summarized as consisting mainly of dairying and the production of the various crops incidental to this type of farming; to a less extent general farming and the production of hay, grain, vegetables and some of the small fruits and tree fruits adaptable to the district. See table number 2. Dairying, however, is by far the most important enterprise in the county, and provides 58.5 percent of the county's annual agricultural income. In certain sections of the county, raising of cattle and sheep has proven profitable, which is indicated by the fact that 23.3 percent of the county's annual income is derived from livestock products. The development of agriculture has been largely confined to the parts of the county which are accessible from rivers and the larger streams. Few attempts have been made to farm extensively the hilly or up-land portions, and a relatively small portion of the area capable of agricultural development is improved or classed as farm lands. See table No. 3.

The first permanent settlers in the southern part of Coos County and in Curry County began the raising of cattle for market on the small stretches of open prairies which were found in these sections. The cattle were fattened for market in the fall and driven across the country to Roseburg to the railroad, or shipped by water to San Francisco. This phase of agriculture reached its peak in the county in 1890, when there were 3,200 more cattle than in 1925. Sheep likewise in 1900 were an important source of income as the county supported 11,700, which had declined by 1923 to 5,600. This decline in numbers of both cattle and sheep was due largely to the increase in value of the open prairie and tillable areas, making it necessary to engage in the dairy industry in order to bring a greater return on the investment. See table number 4.

The production of milk and the manufacture of butter and cheese has for a great many years been the most important agricultural industry of the county, and a number of large, independent and co-operative creameries and cheese factories are located in the county, in the Coos Bay district as well as at various points in the Coquille Valley. See table number 5.

The dairy herds are mainly of the Jersey breed, with only an occasional herd of the other dairy breeds. Many purebred dairy animals are found in the herds in the Coos river and Coquille river districts, and some of them have made excellent production records.

In general, farming in the area is directed toward the production of crops used in connection with dairying. Wheat and barley are not produced in sufficient quantities to supply the local demand. The chief money crops to the majority of farmers are potatoes, onions, beans, and other vegetables, and bush and tree fruits, all of which are in demand and bring comparatively good prices in towns and lumber camps. During recent years creeping bent
grass is marketed for its seed, and has provided an additional cash crop, as has also canary grass seed and purple vetch seed, which is produced in limited quantities in the upper Coquille Valley. In many cases, however, the income of farms is derived entirely from the sale of milk or cream and no attempt is made to produce crops for market. The soils of the bottom lands are well adapted to truck crops, large yields of potatoes of fine quality are produced, and in some years shipments have been made to outside markets, although during the past three or four years large quantities have been imported into the county.

Soiling crops are usually grown as summer feed for dairy stock. Field corn, red and white clover, peas and vetch, and occasionally alfalfa, are the principal soiling crops.

During recent years silos have been adopted in some cases and the raising of corn for ensilage has increased in the warmer sections of the interior of the county which are best adapted to this crop. Many farmers are finding root crops a satisfactory substitute for silage and are growing large quantities of carrots, beets, mangels and rutabagas.

In recent years an increasing interest in fruit growing has developed, particularly in the section around Myrtle Point, where a cannery has been operating for several years. Apples, pears, plums, and cherries are produced by farmers, principally for domestic purposes. In many of the older established orchards little attention has been given to pruning, cultivation or spraying, with the result that many of these are becoming unproductive or are producing inferior fruit. Particularly do some of the smaller fruits, including strawberries, loganberries, and blackberries, offer promise of development.

The establishment of commercial poultry flocks has taken on importance during the past few years, until now there are several successful commercial poultry plants in the county. See table number 6.

The 1925 census shows that there are 1273 farms in the county, which is a slight increase over the number in 1920. The average dairy farm of the district ranges from forty to one hundred and sixty acres or more, and usually includes cleared bottom land, much of which is used for grazing, and small area of upland consisting of some timber and which is also used for pasture. The 1925 census shows that the average acreage per farm is 143.5 acres.

(The foregoing paragraphs are based upon information contained in the U. S. Bureau of Soils Survey for the Marshfield area, the U. S. Census and U. S. Bureau of Crop estimates).
Climate of Coos County

Clear, cool summers and comparatively long rainy seasons during the winter months are typical climatic features of Coos County. The county is located in that portion of the Northwest which is said to have the most equable climate of any in the United States.

Climatic conditions of the county are shown by the records of the United

DIVISION OF LAND AREA
COOS COUNTY - 1919
FROM U.S. CENSUS AND RECORDS OF COUNTY ASSESSOR
TOTAL AREA - 1,041,920 ACRES

- FOREST LAND: 597,177 ACRES (57.4%)
- LOGGED OFF LAND: 262,000 ACRES (25.1%)
- FARM LAND: 182,743 ACRES (17.5%)
- 5,000 ACRES CLEARED ANNUALLY
States Weather Bureau. At Marshfield the mean annual precipitation is 66.63 inches; at Coquille 55.73 inches; at McKinley 68.93 inches; and at Bandon 66.63 inches. November, December, and January are the months of heaviest rainfall, while July and August have very little rain and are characterized as the "dry season." About 84 percent of the precipitation comes during the months of October to April, inclusive. See table number 7.

Temperatures are moderate and equable. The annual mean temperature at Marshfield is 51.5 degrees, while the mean maximum is 60.2 degrees and the mean minimum 43.2 degrees. At other points in the county temperatures range about the same except that in the interior valleys there is a higher degree of summer heat, and an increasingly lower degree of temperature during the winter months. This, however, makes these inland portions of the county particularly adaptable to the production of corn, wheat, oats and potatoes.

The date of the average last killing frost in the spring at Marshfield is April 16, and the average first killing frost in the fall at the same point is November 6. These figures vary only slightly at different points in the county, and indicate a long growing season and conditions which are favorable to the growth and maturity of most cultivated crops adapted to temperate regions, and especially adapted to the production of forage crops to be used in connection with dairying.

The conclusions in the foregoing paragraphs on climate were taken from the official records of the United States Weather Bureau as compiled and tabulated by the O. A. C. Extension Service for the Coos County Agricultural Economic Conference.

The following table gives the average monthly and annual precipitation records for four stations in the county:

**TABLE NO. 7**

**COOS COUNTY PRECIPITATION RECORDS**

**AVERAGES, MONTHLY AND ANNUAL IN INCHES.**


<table>
<thead>
<tr>
<th>Station</th>
<th>Bandon</th>
<th>River L. H.</th>
<th>McKinley</th>
<th>Marshfield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years covered</td>
<td>1878 to</td>
<td>1897 to</td>
<td>1897 to</td>
<td>1902 to 1924</td>
</tr>
<tr>
<td>by records</td>
<td>1900</td>
<td>1916*</td>
<td>1921</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>11.45</td>
<td>9.37</td>
<td>11.20</td>
<td>11.01</td>
</tr>
<tr>
<td>February</td>
<td>8.36</td>
<td>7.43</td>
<td>9.69</td>
<td>8.73</td>
</tr>
<tr>
<td>March</td>
<td>7.72</td>
<td>6.66</td>
<td>8.11</td>
<td>8.05</td>
</tr>
<tr>
<td>April</td>
<td>5.43</td>
<td>3.58</td>
<td>4.83</td>
<td>4.58</td>
</tr>
<tr>
<td>May</td>
<td>3.73</td>
<td>2.75</td>
<td>3.48</td>
<td>3.30</td>
</tr>
<tr>
<td>June</td>
<td>1.76</td>
<td>1.66</td>
<td>1.49</td>
<td>1.75</td>
</tr>
<tr>
<td>July</td>
<td>0.47</td>
<td>0.45</td>
<td>0.45</td>
<td>0.55</td>
</tr>
<tr>
<td>August</td>
<td>0.51</td>
<td>0.38</td>
<td>0.47</td>
<td>0.34</td>
</tr>
<tr>
<td>September</td>
<td>2.56</td>
<td>2.02</td>
<td>2.72</td>
<td>3.38</td>
</tr>
<tr>
<td>October</td>
<td>5.17</td>
<td>3.90</td>
<td>4.70</td>
<td>4.51</td>
</tr>
<tr>
<td>November</td>
<td>8.00</td>
<td>9.47</td>
<td>11.38</td>
<td>10.39</td>
</tr>
<tr>
<td>December</td>
<td>11.41</td>
<td>8.06</td>
<td>10.41</td>
<td>10.04</td>
</tr>
<tr>
<td>Annual</td>
<td>66.57</td>
<td>55.73</td>
<td>68.93</td>
<td>66.63</td>
</tr>
</tbody>
</table>

* Record for 1918 omitted.
TABLE NO. 2.
VALUES OF FARM PRODUCTS FOR 1919
and of
LIVESTOCK FOR 1920.
(Compiled by O. A. C. Extension Service from U. S. Census Records).

<table>
<thead>
<tr>
<th>Crops Produced:</th>
<th>Value</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hay and Forage</td>
<td>$1,074,988</td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>348,258</td>
<td></td>
</tr>
<tr>
<td>Fruits and Nuts</td>
<td>176,210</td>
<td></td>
</tr>
<tr>
<td>Cereals</td>
<td>96,153</td>
<td></td>
</tr>
<tr>
<td>Other grains and seeds</td>
<td>5,551</td>
<td>$1,701,160</td>
</tr>
</tbody>
</table>

Livestock, Poultry and Bees:

| Dairy Cattle                     | 1,108,291 |
| Beef Cattle                      | 263,111   |
| Horses                           | 261,624   |
| Swine                            | 99,628    |
| Sheep                            | 56,098    |
| Poultry                          | 48,152    |
| Bees                             | 10,185    |
| Goats                            | 7,066     |
| Mules                            | 3,807     |
| Asses and Burros                 | 730       |

$1,858,692

TABLE NO. 5
DAIRY PRODUCTION, COOS COUNTY
(Compiled by O. A. C. Extension Service From U. S. Census Records)

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Number of Producing Dairy Cows</th>
<th>Milk Produced</th>
<th>Average Production per cow (gal)</th>
<th>Value of Production</th>
<th>Receipts from Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1870</td>
<td>* 949</td>
<td>** 22,430 Lbs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1880</td>
<td>* 2,629</td>
<td>** 97,301 Lbs.</td>
<td>6,611</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1890</td>
<td>* 3,982</td>
<td>1,230,276 Gal.</td>
<td>309</td>
<td>$197,436</td>
<td>$158,911</td>
</tr>
<tr>
<td>1900</td>
<td>6,780</td>
<td>2,738,152 Gal.</td>
<td>404</td>
<td>$378,992</td>
<td>$353,671</td>
</tr>
<tr>
<td>1910</td>
<td>8,544</td>
<td>2,992,824 Gal.</td>
<td>510</td>
<td>$1,289,775</td>
<td>$1,258,010</td>
</tr>
<tr>
<td>1920</td>
<td>10,746</td>
<td>4,408,225 Gal.</td>
<td>566</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1925</td>
<td>10,747</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* "Milch Cows," presumably 2 years old and over.
** Pounds of butter and cheese manufactured.