

1947

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AGRICULTURAL PLANNING CONFERENCE

FOR

Lake County

CONTAINING REPORTS OF COMMITTEES
SUBMITTED AND ADOPTED FEBRUARY 27, 1947
LAKEVIEW, OREGON



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Containing Reports of Committees
Submitted and Adopted February 27, 1947
Lakeview, Oregon

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FOREWORD

The land is our most valuable resource. From it comes the new wealth that sustains our economy. From the homes on the land comes the new blood that sustains our cities. Planning the wise use of the land to maintain and improve those homes and communities is the privilege and responsibility of each succeeding generation.

The Lake County agricultural planning conference on February 27, 1947 was held to exercise that privilege and responsibility. This conference was a continuation of the planned agricultural development that has characterized the county for many years. Similar sessions had been held in Lakeview October 30-31, 1936.

The 1947 conference originated from a request by the county agricultural planning committee that the Extension Service of OSC cooperate in a reappraisal of agricultural conditions and outlook following the close of the war. Members of the Extension Service staff and Lake County who assisted with the conference are Elgin M. Cornett, County Agent, and Scott P. Clevenger, County Club Agent. Cooperation of all other agencies servicing agriculture in the county also was sought.

Seven committees were established several months in advance, including eighty-four people representing every section of the county. Each of these committees collected data and considered all facts obtainable in preparing a report. These committee reports were presented to the one-day county-wide conference which all farm people were invited to attend, and this booklet comprises the reports as discussed and approved by the conference. They represent the considered judgment of active farmers and farm leaders counseling with Extension specialists in the various fields. They are published here with the thought that they may serve as a guide to the trends that are probable and desirable in development of the farming industry and rural home life in the years immediately ahead.

Ned Sherlock

General Chairman

Elgin M. Cornett

County Agent, General Secretary

Funds necessary for the publication of this report by the Lake County Examiner were furnished by the Lake County Community Chest.

Conference Committees

Farm men and women serving on committees are as follows:

LAND USE COMMITTEE

W. B. Snyder, Chairman	Robert L. Weir
Roy Perry	Cecil Gibbons
J. R. Heckman	Herb Pollard
Oscar Kittredge	Bob Fitzgerald
Howard Campbell	Merle Lowden
W. P. Vernon	J. C. Clark
C. W. Ogle	

VETERANS AFFAIRS COMMITTEE

Robert L. Weir, Jr., Chairman	William Holloway
Erwin Abramson	Neal Elliott
Walt Leehmann, Jr.	Ben Vernon
Howard Campbell	A. L. Travis
Don Hotchkiss	Carter Fetsch
Elmer Williams	

FARM HOME AND RURAL LIFE COMMITTEE

Mrs. Herbert Stover, Chairman	Mr. Raymond Fisher
Mrs. C. V. Fenimore	Mrs. Marshall Dunham
Mrs. Bud Parks	Mr. Marshall Dunham
Mrs. Dean Harris	Mr. Dave Bates
Mrs. Harry Crowl	Rev. H. N. Tragitt, Jr.
Mrs. T. C. Hartzog	Rev. Louis Samson
Mrs. Fred Baldwin	Rev. A. E. Place
Mrs. Raymond Fisher	Mr. Alex Zevery
Mrs. Loren Hunt	Mr. Jim Thompson
Mr. Herbert Stover	Mr. Henry Bergstrom
Mrs. Anne Sprague	Mrs. Cora Hill
Mr. William Holloway	Miss Helen Marcy
Mr. Scott P. Clevenger	Mrs. Dennis Lane
Mr. H. A. Casidy	

DAIRY, HOGS AND POULTRY COMMITTEE

Raymond Fisher, Chairman	Richard Newman
William Pfrang	Earl Sanford
Neal Elliott	Mrs. Sylvia Abramson
Mrs. Charles Matejka	Clarence Tracy
Andy Hill	Mrs. Nellie Ogle
Mrs. Fred Baldwin	

CONSERVATION AND IRRIGATION COMMITTEE

E. G. Favell, Chairman
Elmo Angele
Roy Perry
Don Hotchkiss
Jack Mulkey
Ernest Bussey

Harry Crowl
Loren Hunt
Mark Maddock
Phil Smith
George Ashcraft
Les Elder

CROPS COMMITTEE

Elmo Angele, Chairman
Jimi Ozamis
Roy Peterson
Mark Maddock
Joe Scherupp
Erwin Abramson
Homer Smith

William Pfrang
Andy Hill
H. C. Harris
Lee O'Neil
William Holloway
Charles Jamieson

LIVESTOCK COMMITTEE

W. P. Vernon, Chairman
Jim Wakefield
Don Hotchkiss
Vancil Withers
E. M. Carlon
Con Taylor
Bob Fitzgerald

Robert Weir, Jr.
Fred Ross
William Harvey
Walt Leehmann, Jr.
Herb Pollard
John Kucera
Howard Campbell

LAKE COUNTY FARM PLANNING CONFERENCE

LAND USE COMMITTEE REPORT

Data Concerning County

Lake county, with a population of 7,000 people, is located in south central Oregon at an elevation of from 4178 to 4900 feet in the valleys, with mountain elevations up to 8446 feet above sea level. Average annual precipitation varies from less than ten inches to approximately fifteen inches. At Lakeview, the principal town and trading center of 3000 population, the U. S. Weather record shows an average growing season of 127 days, with average precipitation of 13.5 inches.

Streams from the forested areas flow into valley floors with no outlet drainage except for a small percentage of the area along the western boundary. The water obtained makes possible crop production, principally livestock feed, despite the arid climate. Better soils will produce grain and hay without any irrigation if properly handled. Lake county soils are derived from weathered volcanic material and from lake bed sediments. Marshy areas may include organic accumulation known as peat. Textures include sandy loam, silt loam, sandy clay loam and peat.

Lumbering Plays Vital Part In County's Economy

About 1,390,655 acres of forest land lie within Lake county. In volume there are 4,225,765 M board feet of commercial timber on lands managed by the U. S. Forest Service and an ad-

ditional 2,300,000 M feet on other federal, state, and private lands. The private timber inventory of Lake county has been reduced during the past ten years, and most of that which remains will probably be operated by owners whose plants are located outside of the county.

Within the boundaries of the Lakeview working circle there is sufficient National Forest timber to permit an annual cut of about 38 million feet of commercial timber. This management unit includes the National Forest timber which is planned to be manufactured in the county.

Within the past four years the installed milling capacity in Lakeview and vicinity has been reduced from 140 million feet to about 66 million feet per year. At present seven sawmills are operating in Lakeview and the nearby vicinity. Four of these mills are of a portable or semi-portable type, with an aggregate capacity of about 6,500 M. feet per year. It appears that through the operation of Forest Service timber at sustained capacity and the operation of that part of the remaining private timber within the working circle which is available to Lakeview, the annual output will not be greatly reduced in the next five years.

The payroll from the lumbering industry in Lakeview and vicinity has been held at a fairly constant level through the introduction of manufacturing plants. These plants are hand-

ing a fair percentage of locally produced raw material suitable for molding, box, and shop stock, and it would be possible to produce finished products from the entire local cut.

A study is presently under way to determine the feasibility of installing local plants for manufacturing wall boards which could be developed to use the fiber from species which are not considered to be of commercial importance.

Considering all of the possibilities for more complete processing of forest products within Lakeview and Lake county, the lumbering industry promises to play a vital part in the county's future economy.

"Average" Farm Has 2,476 Acres

Ever since a portion of Lake county was taken away to form Klamath county in 1882, total acres of "all land in farms" has been increasing. The average farm shown by U. S. Census in 1890 was 408 acres, and in 1945 it was 2476 acres. Studies made of irrigated farms in the county would indicate that an average of 100 acres of irrigated land would be the most economical diversified farm. Dairy farms should handle 20 cows for sufficient income to make a living and care for cows properly. Sheep ranches should have feed and range to care for a band of 1200 ewes and the annual lamb crop. A cattle ranch should handle 100 breeding cows to be considered self-supporting. Small, undersize units are not recommended where the operation must pay its way and make a living for the operator.

All Federal Land Used For Grazing

Three-fourths of the county area is federal land, but it is all used for grazing. The federal land is national forest and low value desert sage type of grassland. Winter feed is provided for the most part by the privately owned land. National Forest is largely depended upon for summer range. Other Federal Lands, mostly administered by the bureau of land management, are utilized in late fall, early winter and early spring. All these government lands are tied in virtually as an integral part of privately owned lands to provide year-round feed for range livestock, providing three-fourths of the annual farm income for Lake county.

No Immediate Opportunity For Additional Farmers

There is no immediate opportunity for increasing the number of farm units to provide for more families in Lake county. There may be developments in the future, and new irrigated farms will be developed by better use of marsh lands now grazed or cut for hay.

Several large ranches control marsh lands and the state owns several thousand acres of the same type which could be developed through water control by levees and reservoirs. Government projects would be most helpful in accomplishing developments which small groups find difficult due to water right problems of present flood irrigation users. All concerned are afraid to change the water right status.

Committee Recommendations

1. There should be no major change in methods of administering Taylor Grazing lands in Lake county. Private ownership of these low value lands would not improve the county and could easily cause unstable economic conditions.

2. Small isolated tracts of federal range should be sold to ranchers best suited to use them.

3. At least 50 percent of grazing fees on federal ranges should be used for range improvement.

4. Range lands owned by the Soil Conservation Service in the Fort Rock area should be handled by the Grazing Service along with regular administration of range surrounding it. The Soil Conservation Service is not a grazing or livestock agency, so the two agencies should plan cooperative projects if soil erosion work is performed.

5. Adapted acreages on all private and government ranges should be seeded to pasture grasses. Large scale sage burning experiments on desert ranges is recommended. Some of these areas should be fenced for protection from over-grazing and to provide holding pastures for livestock management.

6. Wild life grazing is some-

times against good range management. Special wild life grazing areas where livestock are excluded should require state lease of additional land for livestock use in exchange. This is customary in private grazing land permits.

7. Weed control of range and farm land is important. Future land use will be determined by weed growth if active control is not followed. Many serious weeds exist but range users should certainly check Mediterranean Sage, just getting badly spread in Lake county.

8. Feeder cattle and sheep finishing with grain on good feed should increase county income and help reduce freight now paid on grain exported.

9. Farm land used in diversified units should be encouraged to level out the business of the county and add many types of income to small farms. One-crop farms should be avoided.

10. Absentee owners of ten-acre tracts located in Lake county have very little, if any, opportunity to realize profit from the investment. These tracts interfere with land titles and irrigation plans. Small tracts should be owned by local ranchers to get what income the land is capable of producing. Such small tracts are not economical units and they should be discouraged.

LAKE COUNTY LAND RESOURCES**Total County Area**

5,292,000 Acres

2,541,000 Acres Unforested U. S. Grazing Land—47%

1,390,655 Acres Total Timber Area—27%

1,115,000 Acres Private Ranches—21%

Other Lands 5%

Land Ownership of Lake County

73% Public Owned Land

27% Private Land

Estimates by Lake County Agent

TIMBER RESOURCES IN LAKE COUNTY**Annual Commercial Timber Cutting Capacity at Lakeview**

140 Million Board Feet—Wartime Peak

66 Million Board Feet—Rate of Cut 1947

38 Million Board Feet—USFS Annual Growth Available for Logging

Timber Area in Lake County

1,390,000 Acres Total

U. S. Forest Service—80%

Private—20%

Timber Volume in Lake County

6,523,765,000 Board Feet

4,223,765,000 Board Feet—65% U. S. F. S.

2,300,000,000 Board Feet—35% Private Timber

Estimates by Lake County Agent

LAKE COUNTY FARM PLANNING CONFERENCE

LIVESTOCK COMMITTEE REPORT

Cattle Numbers Up, Sheep Down

Livestock provided 77 percent of the agriculture income for Lake County when the latest United States census was taken in 1945. Sheep numbers have dropped 65 percent in ten years while cattle numbers have increased more than enough to make up for it. This means feed grown in the county is used up with less reserve for safety. Feed and livestock balance in the county determines whether more or less livestock could be maintained. It appears the present numbers are ample and additional safety in case of drought or hard winters would require reducing total livestock numbers.

The following table indicates that average need is one acre of hay for each animal unit (five sheep or one cow considered an animal unit). Some range would require less and some more winter feed available.

LAKE COUNTY LIVESTOCK POPULATION AND HAY ACREAGE

Year	Percentage of cattle	Percentage of sheep	Animal units (5 sh.-1 cow)	A. hay cut 100 anim. u
1946	87	13	85,700	98
1945	86	14	87,180	95
1940	77	23	77,400	93
1935	62	38	78,318	83
1930	60	40	80,000	104
1925	67	33	61,341	114
1920	66	34	63,294	114

(Compiled from OSC Extension Service Data)

Reseeding of Pastures Advocated

It is recommended:

1. That more livestock be held on irrigated pastures. This could be accomplished by putting more grain land into irrigated pastures and stirring up wild-hay meadows and seeding them to good grass or hay mixture. This land should be leveled and a good seedbed prepared before seeding. For irrigated pastures a mixture of any or all of the following grasses with clover, seeded to about 20 pounds of seed to the

acre, is advisable; Alsike Clover, Smooth Bromegrass, Tall Fescue, Orchardgrass, Tall Oatgrass and Meadow Foxtail.

2. That more dryland pastures be improved by seeding. Where practical, brush should be burned and other areas be stirred up to provide a suitable seed bed. For dryland pastures a mixture of any or all of the following grasses is advisable; Sweet Clover, Crested Wheatgrass, Winter Bluegrass, Big Bluegrass, Wild Ryegrass and where there is sufficient moisture, Smooth Bromegrass. It is

believed that the practice of drilling is superior to broad-casting.

3. That Federal agencies and private landowners be encouraged to practice controlled burning and reseeding, where deemed advisable, on lands primarily suitable for grazing purposes.

4. That all accidentally burned over areas be reseeded as soon as possible to take advantage of the ash seedbed.

5. That more irrigated pastures be used to finish half-fat lambs and beef.

Range Management Program Needed

It is recommended:

1. That each rancher plan a well rounded operation, keeping in mind the balance between feed and livestock numbers each season.

2. That the operator make use of watering facilities and salting better to utilize his range.

3. That the operator use proper range management to cut down losses from poisonous weeds.

4. That where practical a system of deferred grazing be used to maintain forage.

Wildlife and Predator Control

It is recommended:

1. That special big game seasons be confined to smaller specified areas, and that tag dates be staggered to allow hunters to cover areas for a longer period.

2. We commend the State Game Commission on its work in stabilizing big game numbers by keeping herds down to what each specified area will carry.

3. The cattlemen as well as the sheepmen should help direct and support the predator control program.

4. We support the State and National Livestock Associations in working for a coyote bounty in the eleven Western States.

5. The present plan for predator control must be expanded and carried on in addition to the above recommendations.

Parasite Control Program Needed

The committee feels that:

1. The county agent should appoint annually a livestock disease committee to work with the county court, local veterinarian and the State Department of Animal Industries in a disease control program. This committee will be composed of local livestock operators.

2. The farmers and county court should encourage a practicing veterinarian to maintain headquarters in Lakeview.

3. Lice on cattle cause greater loss than is generally understood throughout the county. We recommend fall spray or dipping entire herds to prevent trouble.

4. Warbles which show up on cattle backs should receive community efforts, getting neighbors to treat everything.

Methods of Running Cattle

For pasture system under fencing, we suggest that:

1. Cows should be bred from the first part of June to September 30.

2. Before calving time, two-year old heifers should be separated from older cows and put into a small pasture where they can be watched daily during calving season.

Under range system of cattle management, we recommend that farmers:

1. Start breeding season about June 20 to July 1, and remove bulls after three or four months, or when gathered in the fall.
2. Provide four bulls per 100 breeding cows.
3. Never put on the range bulls that have been pampered or groomed for show.

Methods of Controlling

Diseases.

For Bangs disease control, sell all dry cows, vaccinate heifer calves (Age 4 to 8 months).

For blackleg, vaccinate all calves.

For Red Water disease, vaccinate all cattle in spring or early summer if they range in areas where red water is known to exist.

For special control of infected ranges, drain all standing water holes. Treat water with copper sulfate if standing water is in relatively small holes.

Some Suggestions on Feeding

1. Feed cows all they will eat in winter for better calf crops. This practice is especially recommended for heifers.

2. Feed more steers for market on home ranch when grain prices are normal.

3. Alfalfa has proved a better wintering feed than wild hay and a supplement for wintering cattle.

4. Much investigation and study is recommended before anyone attempts to fatten old cows for market after calves are weaned in fall.

5. All grains used to fatten cattle have about the same feed

value; price of grain should be the deciding factor in choosing a feed.

Suggestions on Management

1. Don't run more cattle than ranch set-up will accommodate.

2. Beef cattle breed must be suited to range conditions. The predominant breed in your community is most likely to be satisfactory.

3. In purchasing range bulls, don't pay over the price of three two-year old feeder steers.

Tightening of Brand Inspection Needed

The committee feels that:

1. Flesh marks should be recorded same as brands but with no duplication in the same vicinity or community.

2. State Department of Agriculture, together with Oregon Cattle and Horse Raisers Association and Oregon Wool Growers, should attempt to work out a cooperative brand inspection service with California in return for five-cent head charge now made by that state.

3. County court in cooperation with livestock growers association should publish a Lake county brand book and keep it up to date by publishing an annual supplement.

4. Any livestock passing through an auction or other sale yard in Lake county should be required to pass a brand inspection.

5. Any brand inspection fee charged upon diversion of livestock from North Portland or other sale yards should be placed upon purchaser instead of upon seller, as is now the case.

6. Any purchaser of branded livestock in Lake county should require that the seller vent his iron.

7: The brand laws should be revised to prohibit the removal of more than half of the ear in marking of cattle, as they now read in regard to sheep.

8. Financing of an adequate brand inspection service in Oregon by tax on livestock or through a charge per head is needed.

Improved Marketing of Livestock

The committee feels that:

1. All organizations in Lake county should exert all pressure possible to insure enactment of 60-foot truck bill in Oregon, and construction of highway 395 between Alturas and Oregon line.

2. Chamber of Commerce, county court and all other influential organizations of the county should promote the construction of first class market roads into sections of the county not served directly by first class highways.

3. The possibilities of a graded feeder sale in Lakeview should be investigated and a trial sale on a cooperative basis should be organized.

4. Some organization or group of organizations should sponsor an exhibit of dressed carcasses to demonstrate dressing percentage and grades of meat animals.

5. Since no program has been formulated in regard to laws regulating auction sales yards, and such laws are scheduled for consideration in present session of legislature, we recommend the appointment of a committee from Lake County Stockgrowers Association to make recommen-

dations to the legislature.

6. The Lake County Shipping Association should be maintained for benefit of small sales of livestock.

Right of Ways and Stock Driveways

The committee feels that:

1. The Lake County Stockgrowers Association should appoint a committee to ask the county court to set aside county tracts of land situated along all stock driveways for livestock stopping sites. Whenever possible these should contain a permanent accessible water supply. If county lands are not available where needed, the county court should purchase sufficient property to provide these stopping places. The above committee should ask stockgrowers to make known such needs and a map should be prepared showing all such stopping grounds.

2. We further recommend that the county court provide a fence law covering fences bordering established stock driveways. The law should provide that these fences must be in place and maintained in good condition before any property damage could be lodged against an operator for trespass. As an alternate proposal we suggest that the county provide the fence and levy cost against the property.

3. There is a need for more scales in outlying communities, either private or cooperative. Scales, other than railroad equipment, are needed for livestock weighing at Lakeview.

Sheep Numbers are Down Probably to Stay

The number of sheep have de-

clined partly because of the labor required. Reliable workers are not available to care for bands of sheep. No young Americans are found taking up this essential work and no foreigners allowed to immigrate to help out. National provision to permit entry of dependable workers from other countries is needed.

Loss from coyotes is heavy because rabbit numbers have disappeared and coyotes must seek other food such as deer, antelope, sheep, grouse and geese.

Coyote control work is slow, due to low fur value from luxury tax and because private trappers are employed at other work since the war.

Wool prices are uncertain since foreign wool is produced at lower cost and importation is increasing.

Tariff and trade agreements for protection of wool markets

in the United States are subject to uncertain change. A stable program is needed to provide a stable wool market.

Range Used by Cattle Instead Of Sheep

Much of Lake county sheep range has been switched to cattle successfully.

Some range is better suited to sheep because poison plants are less hazard for sheep than cattle. Often snow provides water for sheep when cattle cannot use some range. Sheep are more likely to stand severe drought conditions when cattle would starve.

Less range lambing and more early shed lambing is recommended to get lambs on early grass and ready for market before ranges get dry in Lake county.

LIVESTOCK FEED RESOURCES OF LAKE COUNTY**Livestock Feeds Used in Lake County 12 Month Season**

809,000 Animal Unit Months—100%

Private Ranches 27% of Area

566,000 Animal Unit Months, Private Ranches 70%

Hay—35% of Total Animal Unit Months

Meadow—20% of Total Animal Unit Months

Range—15% of Total Animal Unit Months

Public Owned Range 73% of Area

243,000 Animal Unit Months Gov't. Land 30%

Grazing Service—24½% of Total Animal Unit Months

U. S. F. S.—4½% of Total Animal Unit Months

Other Public Lands—1% of Total Animal Unit Months

Estimates by Lake County Agent

LAKE COUNTY CASH INCOME

Lake County Total Cash Income

Total Cash—100%

Farms—49%

Timber—47%

Other Incomes—4%

Farm Income

Total From Farms—100%

From Livestock—77%

From Crops—23%

Livestock Income

All Livestock—100%

Beef Cattle—84%

Sheep—13%

Dairy, Hogs, Poultry—4%

Estimates by Lake County Agent

VETERANS AFFAIRS COMMITTEE REPORT

Veteran should get farming experience

The committee makes the following recommendations which we feel deserve consideration of a veteran before entering a farming enterprise in Lake County.

1. Unless the prospective operator has experience and is familiar with conditions of the county, he should work for a year or so on the type of operation he is contemplating. Also he should take advantage of schooling offered under the G. I. Bill of Rights.

2. He should contact the County Agent or members of Veterans Agricultural Advisory Committee before committing himself to any purchase.

3. The committee recommends that returning veterans refrain from purchasing county lands, unless such purchase specifically recommended by the committee or other qualified person. The same recommendation applies to any unpatented government lands.

4. The committee believes that the minimum size for a strictly livestock enterprise in this county is 100 head of breeding cows, or a sheep ranch of 1200 head. Such an enterprise should provide sufficient annual income for satisfactory family living. One to one and one-half tons of hay per head is needed to winter this amount of livestock, plus sufficient rangeland for year-round operation. A veteran who wishes to invest in a farm or ranch should be in position to make a down payment of 40 percent of the reasonable value

of the property. The minimum size for a general farm in Lake County, which will furnish sufficient annual income for satisfactory family living, will vary from 80 acres to 200 acres, depending on such factors as location, topography, water, soil type and other factors.

Caution Urged in Making Investments

5. Our committee cautions returning servicemen in regard to the importance of not investing their savings and the money which will be made available to them through loans on agricultural enterprises without being thoroughly familiar with the land and its price in proportion to productivity and location.

We further recommend caution in assuming large indebtedness based on inflated values which will be very difficult to pay off with deflated incomes.

6. Recommend that a veteran interested in becoming a farm owner-operator look into the possibilities of tenant operation by share cropping with a purchase option until prices become more normal.

7. Recommend caution in going into a strictly one-enterprise operation and that serious consideration be given to diversification of farming. We also recommend that anyone engaging in agriculture explore and study market outlets for his products, and that superior grades of livestock and crops be used in his endeavors.

Credit Agencies Listed

8. For veterans looking into credit possibilities, the follow-

ing credit list agencies are suggested:

a. Private banks—largely short time production loans.

b. Production Credit Association—short time production loans.

c. Farmers Home Administration—production loans and land loans under farm treasury act.

d. Federal Land Bank—land only.

e. Insurance Companies—land only.

f. Individuals

g. Commodity Credit Corporation—harvested crops.

9. Any veteran seeking further information on veterans rights is referred to Carter Fetsch, Am-

erican Legion Veterans Representative for Lake County. For further information on veterans loans reference is made to R. D. Probstel, assistant cashier, First National Bank of Portland, Lakeview branch.

10. The committee further recommends that the County Agent appoint and keep up to date a group of sound, experienced, active farm and ranch operators to serve as Lake County Veterans Agricultural Advisory committee; and that veterans take advantage of the experience and judgement of these men better to acquaint themselves with Lake County and its agricultural possibilities.

FARM HOME AND RURAL LIFE COMMITTEE REPORT

Well Balanced Community

Activities Sought

The center of all rural living is the farm home, and it is important that it be the best possible for the enjoyment and happiness of the rural family. Well balanced community activities that provide opportunity for adults as well as youth to develop their interests and provide social entertainment make for better community spirit and family life.

Centers of community activity are the church, school, granges, lodges and the homes. Lake county at the present time has schools at Fort Rock, Plush, Adel, Silver Lake, Summer Lake, Paisley, New Pine Creek, Dry Creek, Union, Thomas Creek and Vernon District with a public hall also available at Adel. Good churches are located in all the major places of business in

Lake county. Many of the churches have recreational rooms or basements suitable for such purposes. Several lodge halls are also available for recreation or other use.

The purpose of this report is to present recommendations of the committee with regard to improvements which would be desirable for Lake county.

Home Economics Council Favored

This committee recommends that a county Home Economics Council be formed with women representatives from the different districts of the county to work with and through the county Extension Office in the development of a better program for the rural women of Lake county.

Many of the recommendations made in this report are contingent upon there being college

Extension personnel available for conducting the demonstrations and meetings recommended.

Farm Homes Need Repairs, Modernization

Census figures show that 571 rural farm dwelling units are badly in need of major improvement or repairs. Only 211 farm dwellings now have running water, with only 104 dwellings having bathtub or shower facilities. Over 50 percent of the houses in Lake county are 25 years old or older. Other figures show 224 farms have electricity, 352 have radios and 158 have telephones.

Housing Recommendations

In view of the situation as outlined above, the committee makes the following recommendations:

1. We recommend careful planning of remodeling homes due to lack of material and supplies until supplies are sufficient for building of new homes.

2. We recommend the use of plans for Oregon farms and acreage homes found at the Extension office; and that demonstrations be shown or given before and after remodeling, especially for modernizing kitchens and storage space.

3. We feel that water and sanitation are very important factors of life and we recommend that more farms make an effort to put in pressure pumps and bath facilities with septic tanks. We feel that a demonstration will show the public the advantage of running water.

4. It is the opinion of the rural districts that they are very

much interested in the freezer locker method of saving for family food supply, and we suggest that a demonstration be given to show the people the advantages and disadvantages of the use of freezer lockers as to expense of building and use.

5. We feel that rural home furnishings should be simple and attractive, with color for variety, and recommend a demonstration to show women the use of color in the home.

6. Due to modern methods of irrigation and landscaping, we think it necessary to have our homes beautiful and made attractive to the public and we ask for a demonstration in this field of farm beautification and landscaping. As our rural districts are sparsely settled, we recommend that more telephones and electricity be made available.

School Lunch Program Needs Improvement

The lunch program of Lakeview schools is very inadequate. Facilities are poor and there is lack of room. Not the right kind of lunch is provided. Other schools in the county are also in need of lunch programs; namely Kelly Creek and Dry Creek. Only four schools in Lake county have availed themselves of the Federal aid for school lunches. County school population is 1121. Only 163 pupils have available school lunches.

We recommend that Lakeview schools (District 7) especially work for a school lunch program under federal aid, and that a P. T. A. Association be organized to sponsor the lunch program. Since the 1945 census shows home produced foods to be adding \$40.00 more to the

family income each year, we recognize this as a valuable practice and recommend it be continued on all farms. We further recommend that surplus garden truck be preserved for the school lunch program. We recommend that demonstrations on canning, freezing and drying of food for the family and for school lunch programs be given, using the newest approved methods.

Clothing Demonstrations

Recommended

In clothing we recommend demonstrations in use and care of materials. To best accomplish the needs of the county in rural life, we believe the services of a county Demonstration Agent are required to give demonstrations, to help club leaders and give other assistance in 4-H work.

Better Use of Health Service

Health facilities for Lake county are concentrated in Lakeview. They consist of one health nurse, five doctors, four dentists, one hospital to serve the 6,500 people in the county. It is best to prevent illness, and for that purpose we recommend a general health educational program to discuss such matters as health insurance, adequate nurse and doctor service, hospital and health center benefits and so forth.

Tuberculosis X-Ray tests are made in the county once or twice each year. This is a service free to all people and a valuable one to help in control of disease. Records show that 519 took tests in 1945 and only 260 tests in 1946. We recommend that all

persons take advantage of the opportunity to be tested as soon as possible, and that they be tested at least once a year.

Pure water is essential to good health. Home wells are easily contaminated; especially shallow or surface wells. To make certain the water is safe for use, we recommend that the family water supply be tested annually. The public health department offers this service. It provides sterile containers and gives directions for collecting samples to be tested. There is no charge for this service.

The accident rate in the county is increasing both from fire and other causes which result in loss of life and property. We recommend that demonstrations be given to show ways and means for prevention of home accidents of all kinds, including use of home fire extinguishers, proper use of electrical apparatus and methods of preventing general household accidents.

Education For Family Life Needed

During the last few years many young people have married and established homes. This means accepting a real responsibility. In 1946 there were almost twice as many divorces as marriages in the county—35 marriages to 68 filings for divorce. Realizing this situation to be detrimental to good family and community life, we recommend that discussions of family life problems be carried on. These could be done in existing organizations such as churches, Mother's clubs or community groups. Subjects for discussion could include child de-

velopment, family relationships, adolescent problems, citizenship responsibilities, etc.

Trained Recreation Leaders Needed

Recreational activities give an outlet for youthful energies, provide a socializing element for all ages and bring people closer together in everyday living. Granges, schools and churches do most to provide recreational functions for the people of Lake county. There is need for trained leaders to carry on these activities. We recommend that training meetings be held at least annually for leaders from all organizations interested in methods and subject matter for community recreation.

Organized Youth Groups Important

The best figures available show 1150 boys and girls between the ages of 9 and 18 inclusive in Lake county. Present enrollment figures in the various youth activities outside of school show 310 boys and girls enrolled in 4-H club work in 1946. Approximately 200 boys are active in Boy Scout work and there are 100 Girl Scouts enrolled. Figures are difficult to obtain on other worthwhile organizations, such as church and service youth groups. Taking into consideration that there will be a lot of duplication within these groups, it is evident that approximately half the boys and girls in this age group are not reached by these character building organizations.

The committee feels that the established organizations for these youth groups and other age groups contribute to the

welfare and community life and that leaders are urgently needed for these groups. Established groups such as the 4-H clubs, Boy Scouts, Girl Scouts, Future Farmers, Future Homemakers, Juvenile Granges and churches take their place with others in helping to carry out the responsibility that education must assume. Serving American youth is the responsibility of these organizations. Cooperation of the home, the church and the school is an important factor.

The national ten-point post-war 4-H program may be used as a guide to help prepare tomorrow's citizens physically, mentally and spiritually. It provides opportunities for voluntary participation in programs built on needs and interests through which youths are:

1. Developing talents for greater usefulness.
2. Joining with friends for work, fun and fellowship.
3. Learning to live in a changing world.
4. Choosing a way to earn a living.
5. Producing food and fiber for home and market.
6. Creating better homes for better living.
7. Conserving nature's resources for security and happiness.
8. Building health for a strong America.
9. Sharing responsibilities for community development.
10. Serving as citizens in maintaining world peace.

More Adult Leadership Needed

We find that in every community there are groups of boys and girls who cannot take part in any organized youth activ-

ities because of lack of adult leadership. This lack of adequate leadership leads to juvenile delinquency.

This committee recommends that parents and those interested in boys and girls investigate the possibility of organizing 4-H club groups or scout groups and then volunteer either to serve as leaders or assist. There is no greater opportunity for worthwhile community service. The committee further recommends that:

1. A summer recreational director be employed and a pro-

gram of directed activity be developed for the summer months.

2. More opportunity or classes be provided for the development of manual arts, both in and out of school. There are opportunities for 4-H manual arts.

3. No additional youth groups are needed but more use of the established organizations should be encouraged.

4. P. T. A. be organized in Lakeview, Paisley, New Pine Creek and possibly Silver Lake to provide closer cooperation and understanding between the home and the school.

DAIRY, HOG AND POULTRY COMMITTEE REPORT

DAIRY REPORT

Dairy Cattle Decline In County

After studying the dairy, hog and poultry enterprises, their past, present and future possibilities, this committee makes the following observations and recommendations.

Dairying as a business in this county has continued to decline throughout the war period as a result of more satisfactory prices for beef animals and an easier return on money invested. Numbers of dairy cattle have dropped off sharply in Lake county. Census figures indicate that in 1940 there were 2400 milk cows over two years old and that in 1945 there were less than 1800, and it is estimated less than 1200 dairy cows exist in Lake county.

According to the 1945 census a total of 139,650 pounds of butterfat were sold, with an estimated drop in amount sold during 1946. This is a consid-

erable drop from the 282,000 pounds of butterfat sold in 1935. There is no surplus of market milk produced in Lake county. Many times during the past season, market milk was available in very limited quantities.

A situation exists where many of the dairy animals are being bred to beef bulls or crossed with Durham or milking Shorthorns.

The long-time dairy outlook continues more favorable than for any other major livestock enterprise. The national goal for dairy products calls for a total output of 120 billion pounds of milk, although it is estimated that farmers could profitably sell several million pounds more if it could be produced.

Dairying Is Sound Enterprise In County

It is the belief of the committee that dairying is a sound

enterprise in this county, especially where adequate feed and pasture are available. Good principles of dairy management should be observed for success. More attention should be given to developing healthy cows, high production per cow and reasonable feed costs.

The committee recommends improved pastures, both irrigated and non-irrigated, as an essential for efficient operation of the dairy enterprise.

Where possible, good alfalfa fields should be developed in order to provide adequate hay of good quality.

Feeding requirements are high due to the length of the actual feeding period, and dairymen should plan at least three or four tons of good alfalfa hay per individual animal.

Breeds recommended include Holstein, Guernsey, Jersey and milking Shorthorns. Individual likes and dislikes of the operator must also be considered.

The cross-breeding or the use of beef bulls with dairy breeds is not recommended. The selection of good bulls is of vital importance and only purebred bulls with a good production record should be used. The committee recommends pooling purchasing of good sires for small herds.

Better milking barns and equipment should be encouraged in this county. Many times inadequate shelter is provided for the dairy cows.

Testing is a good measure of productivity but until such time as a testing association can be developed, the committee recommends that weighing and keeping a record of milk from

each cow be practiced. This should be done regularly at least once a month. A set of milk scales can be purchased at a reasonable price and by weighing the milk, a dairyman can feed according to production.

Bangs and T.B. testing should be done every year. Recommended practice for the prevention of mastitis should be followed (Ore. Cir. 1633).

It is recommended that, until sufficient numbers of dairy animals of good quality are available in this county, Lake county farmers, 4-H club members and FFA members take advantage of the opportunity to purchase calves from dams with a 350-pound butterfat production record from the Western Oregon area.

Dairy Market Outlook Good

There is need for the production of more dairy products locally for local use. At the present time Klamath Falls is a deficient area and it would be possible to ship surplus milk to the area. Burns is also a deficient area.

Size And Improvement of the Dairy Herd

Good dairy cows for replacement are not available in Lake county at the present time.

Lake county dairymen should be encouraged to raise their own dairy calf replacements where possible.

Size of herd depends upon available feed supply, size of farm, and amount of home labor available. Operator efficiency is a factor and in general, large herds operate more efficiently.

Increased butterfat production is an important factor in the

efficient operation of the dairy enterprise. The following table taken from USDO testing asso-

ciation records shows how income over feed costs increases as production increases.

Lbs. Fat per Year	Average Value	Feed Cost	Income over Feed cost	No. cows to Earn \$2000
200	\$192	\$109	\$ 83	25
300	280	126	154	13
400	371	144	227	9
500	457	160	297	7

Losses Greatest From Mastitis Disease

Mastitis is probably the most important disease affecting dairy cattle today and it is known that many dairy cattle in this country are affected. Financial losses caused by this disease are probably greater than losses as a result of Bangs, T. B. or any other single disease. Research on the various phases of mastitis indicates that a sound program of control must be based on early detection of the disease, sanitary measures and early treatment of infected animals. Many remedies through use of various drugs, chemicals and vaccines have been advanced without a high percentage of cures. More recent developments in the use of sulpha derivatives and penicillin or similar products have been very encouraging. Cleanliness and prevention is still the best control.

Bangs and T. B. testing should be carried on regularly in this county. Reactors in 1946 were over six percent in Lake county while Oregon on the whole is about two percent.

Cooperation of all livestock interests and the county court is needed in keeping of a full-time licensed veterinarian for

Lake county if adequate testing and disease control is maintained. Public health is an important factor to be considered.

Increase Favored In 4-H Dairy Projects

The number of 4-H dairy projects in 1946 was only eight boys and girls. Since dairy projects offer an opportunity to learn breeding, care and feeding as well as earning an income, more boys and girls should be taking part in 4-H dairy projects. Present dairy stock owned by club members is of good quality and boys and girls should be encouraged to get good productive stock.

POULTRY REPORT

General Outlook Good

Poultry production in both meat and eggs increased in the United States almost fifty percent during the war years. Here on the West Coast the increase has not been so great but we have had a large increase in population. This situation has changed the poultry industry on the Pacific Coast to the extent that we are no longer a large exporting area but are now on

the import basis. Records indicate that the number of laying hens in Oregon has not varied greatly except for 15 or 20 percent increase during the war. The poultry industry in Oregon has already adjusted to about pre-war level.

Indications are that in the country as a whole there will be a decrease in poultry production. The outlook for poultry production in Oregon is reasonably good, inasmuch as the Pacific Coast has changed from an exporting to an importing area.

Poultry Production in County Varies Slightly

According to the 1940 and 1945 census there were on Lake county farms, 22,511 chickens in 1940 and 21,103 chickens in 1945. Poultry production in Lake county has remained about the same, with some reduction due to high feed costs.

Popular breeds are still white Leghorns, New Hampshires, Rhode Island Reds, Barred Plymouth Rocks. The heavier breeds seem to be more satisfactory in this area as they offer a better sales value for meat.

There are no hatcheries in Lake county and all chickens are shipped in from outside hatcheries in Klamath Falls, California and other points. Very little hen hatching is carried on in the county.

Quality of Flocks Should Be Improved

The committee recommends that wherever possible the quality of products, both eggs and meat, should be improved. Size of flock is a factor in the production of quality eggs. The

committee recommends that, where a family wants poultry and eggs for their own consumption, 25 hens or less would be sufficient. This size of flock could be handled as a 4-H project by the club boy or girl. Where the family income is derived from other sources and poultry is a side-line business, a 500 hen unit is recommended, and in case poultry is the main business, a unit of not less than 2,000 laying hens is recommended. The 25 or 500 hen unit is recommended for Lake county.

Amount of capital investment is an important consideration, especially with our rather long winters. Statistics available indicate that under present conditions an investment of about \$5.00 per bird is required to build, equip, and brood a flock of four birds.

When ordering or purchasing chicks the purchaser should know that the chicks are bred to lay and are free from pullosum disease. An effort should be made to get better shipping connections for baby chicks being brought into Lake County.

Good buildings are important needs in this area. The laying house should be dry, well lighted and warm. Good brooding equipment is an essential to getting the chicks off to a good start.

Feed costs are usually higher here because of freight rates in this area. Some feed grains are available locally and in some cases individual raisers could produce their own.

Culling and Egg Grading Demonstrations Needed.

Demonstrations and instructional meetings should be held on grading eggs and culling

poultry. Better enforcement of the egg grading laws is needed in the Lakeview area.

The committee recommends the establishment of a central egg collecting and grading station in Lakeview.

Few Turkeys Raised In County.

Very few turkeys are raised in Lake county. It is estimated that 500 to 1000 turkeys are raised annually in Lake county but it is not a commercial enterprise. There are some local demands for turkeys, especially for Thanksgiving, Christmas and New Years.

Four-H Poultry Projects Need Encouragement

Very few actual poultry projects have been carried by Lake county 4-H club members. In 1946 only one 4-H poultry club was organized, with most of the members carrying capons as a project.

More boys and girls should be encouraged to carry a small poultry project of at least 25 hens or starting with 50 chicks in order to produce eggs for family consumption. Established poultry producers should be encouraged to offer assistance in brooding and leading poultry clubs.

SWINE REPORT

Few Registered Hogs In County

It is estimated that about 2,200 hogs are purchased annually by Lakeview butchers and sold through local markets. Some fresh pork is shipped and an es-

timated 30,000 pounds of cured pork is shipped into the county each year. This past year some surplus hogs were shipped out by truck to California and Klamath Falls.

Very few registered hogs are in the county. Breeds include Poland China, Berkshires, Duroc, Chester Whites, and there are a few Hereford hogs in the county. Considerable crossing is practised, due to lack of adequate boars.

General Market Outlook Favorable

There is some local demand for hogs at almost all seasons of the year, with the possibility of shipping out through the shipping association. With the passage of the long truck bill, California and Portland markets would be more available.

The committee recommends where possible that suitable hog legume pastures be established as a means of providing feed cheaply.

Enough hogs should be kept on the average Lake county farm to consume waste feeds of all kinds. Where skim milk is a by-product, it could be fed to hogs unless used for some other class of livestock or poultry.

Approximately 450 pounds of grain are required to produce 100 pounds of pork. This of course is reduced where skim milk or pasture as by-products are used. Potatoes are used occasionally. It takes 600 pounds of raw potatoes or 400 pounds of cooked potatoes to replace 100 pounds of grain if fed along with grain. Hogs are sometimes used to clean up a grain stubble field and usually this is worth considering.

Proper Care and Disease Control

Suitable hog houses and other equipment can be constructed at a nominal cost. Proper housing and care of the brood sow at farrowing time is an important part of the hog enterprise. Plans and bulletins are available at the county Extension Service office.

An important consideration in the successful handling of hogs is the removal of worms, which cause unthriftiness, stunted growth, wasted feeds, and in some cases, death, and condemnation in inspected meat packing establishments. Recent research shows sodium fluoride to

be quite effective and hog raisers having trouble should secure Extension Circular 485 from the county Extension office as to use and method of treatment.

4-H Hog Projects Encouraged

Hogs as a 4-H club project, especially raising market hogs, offers an opportunity for training in addition to serving as a means of using wastes and providing meat for the rural family. Boys and girls in this county should be encouraged to carry more hog projects, especially when local feed supplies can be obtained under somewhat normal conditions.

LAKE COUNTY FARM PLANNING CONFERENCE

CROPS COMMITTEE REPORT

Grass Is Most Important Crop

Grass is the most important crop in Lake County since livestock provides three quarters of the total agricultural income. With this situation feed crops of all kinds are needed to maintain safe, sound farm income. A steady increase in cash crops to ship out is going on as more farmers grow grain, potatoes and small seeds. Commercial orchards, once important, are nearly gone but home orchards and gardens are quite valuable to this county. Summer frosts are a hazard in some sections to all crops.

LAKE COUNTY HAY AND GRAIN ACREAGE

Year	Grain Threshed				Hay Acres		
	Rye	Oats	Barley	Wheat	Alfalfa	Grain	Meadow
1946	1,300	8,000	7,000	14,000	7,700	10,500	66,000
1945	1,500	5,000	6,000	10,000	7,400	10,500	65,000
1944	1,000	5,500	5,000	8,400	7,400	11,500	63,000
1943	1,400	7,000	7,500	6,000	7,200	11,000	62,000
1942	2,600	5,800	11,000	4,000	7,500	10,000	58,000
1941	2,100	5,100	10,600	6,600	7,000	8,700	55,000
1940	3,900	5,500	5,700	2,600	6,500	7,300	57,200
1939	1,300	3,200	3,500	2,700	5,900	6,100	68,635
1934	1,588	503	1,513	2,764	4,528	13,380	147,315
1929	325	297	1,011	3,270	8,881	5,733	68,223
1924	80	149	439	1,616	6,292	3,250	53,323
1919	1,636	252	879	6,666	4,002	9,665	74,873

Native Meadows Need Improvement

Native meadows now provide about two-thirds of the county's hay needs. Most of these meadows would yield double their present forage if they could be leveled, worked up, and reseeded to permanent hay or pastures. This may be done on a small area each year. An increased acreage of irrigated farm land should be seeded to permanent pastures throughout Lake county. Seed mixtures are recommended by the county agent. Commercial fertilizer will increase pasture yield and trials are recommended for various

soils and grasses.

Alfalfa can be grown on unirrigated farms with good soil. Both irrigated and dry-land alfalfa should be planted with a little grass seed for quality hay, pastures, and long life. Much grain land now farmed should be planted to permanent hay or pasture.

All types of hay should be cut earlier than is commonly practiced to give it higher feed value and get more after-math pasture. Over-ripe hay has less nutrients than hay cut while soft and just starting to bloom.

Shipping hay out of the county should be discouraged. It

can be fed locally and livestock shipped out, leaving the fertility in the county and providing more money for everyone.

Improve Range Land Management

Range land has been used heavily during the after-war periods of high prices on meat and wool. Seventy-five percent of the county range is government land and twenty-five percent is private land. The government tries to adjust livestock numbers and grazing periods to protect the grass for future use. It is up to ranchers to take care of private range by wise range management. Some outfits often abuse their permanent grass stands when no government range is available to them at certain seasons. The private range is less productive than formerly, due to reductions on federal permits, throwing more stock on home feed.

Grazing capacity varies widely each season, due to moisture and use. Each rancher should keep a record of numbers turned into each pasture and period used to help determine yield of the grass. The local U. S. Land Management office should keep accurate use records of each permit to show actual carrying capacity on desert ranges.

Range reseeding is recommended where sagebrush can be burned safely or otherwise taken out. All accidentally burned areas and logging skid-roads should be seeded the same year. Drilling grass seed is superior to broadcast seeding.

Feed More Small Grains To Livestock

Wheat, oats and barley

threshed in 1946 totaled 28,000 acres. The acreage has increased each year for 27 seasons and almost all of it has been shipped out of the county to market.

All low yielding land and low frosty fields should be seeded to pasture.

All dryland grain land should be summer fallowed often to control weeds and improve yields.

Marketing grain through local livestock feeding is recommended, rather than depending on outside grain markets.

It is recommended that each farm arrange home storage for at least one year's grain crop, and home feed mixing plants would benefit livestock feeding.

Grain Varieties Vary With Conditions

Grain varieties recommended vary with soil and moisture conditions. Pure clean seed is well worth paying for, to encourage its production. Growing certified seed grain should be encouraged and growers advised to cooperate with the county agent's office on this project.

Wheat varieties suggested from growers' experience:

1. Winter wheats include "Turkey Red", which seems to be medium popular; "Rex", a soft white wheat new to the county, seems to yield very well; "Elgin" is a club wheat reported tops by experiment stations but should be in Lake county.

2. Spring wheats include "Hard Federation" for good dry land; "White Federation" and "Baart 38" on irrigated land. Galgalos is not recommended for Lake county.

Barley varieties recommended are "Hannchen" for good dry

land and "Trebi" for irrigated soils; "Compana", recently introduced, seems to produce good dry land yields. Winter barley yields high if winter weather is favorable, but is not a dependable crop. "Utah Winter" appears to be the best barley for fall seeding. Clean fields often produce premium malting barley in Lake county.

Oats recommended are "Kano-ta" for lake bed and peat soils. "Markton" is the best variety for other sections of the county. Oats mature rapidly and have suffered less damage from summer frost than either wheat or barley in sections where frost is a hazard.

Increase Recommended In Small Seeds

Good quality alfalfa and clover seeds can be grown in Lake county and an increase is recommended. This crop is recommended as a cash crop for diversified farms where weeds are not present. More grass seed should be grown and all seeds should be marketed through one or two dealers in order to assemble large enough quantities to attract buyers.

Alfalfa seed yield is not dependable but harvesting requires less expense than haying operations and the crop is profitable.

Alsike clover is more dependable than red clover and should be increased in Lake county for seed productions.

Honey bees are necessary aids to clover seed production but seem to help alfalfa only slightly. Wild bees which live in uncultivated ground do help alfalfa.

Additional work is needed to

determine whether insect damage controls seed set and yields.

Grasses recommended for growing seed are Crested Wheat, Alta Fescue, Smooth Brome, Non-shattering Tall Oat, New Meadow Foxtail, and Bluejoint.

Some Specialty Crops Recommended

Potatoe increase of 1000 acres is recommended to improve labor movement, to attract buyers and to provide a cultivated crop to use in farm rotation system. Commercial fertilizer is profitable and should be used on potatoes. A cooperative potato grading and marketing association in Goose Lake Valley is recommended to take care of the crop after growers produce it.

Peas are recommended to turn under as a green manure crop. Vetch is not used, due to its volunteering habits.

Peas for seed have been tried by several farmers and discontinued.

Flax for seed has been grown by several farmers and discontinued in favor of grain. It should do well on weed-free soils.

Onions in rows are suggested as a cultivated crop where needed as a rotation practice.

Vegetable seeds have been grown in the past but discontinued.

Commercial orchards are not recommended. Native wild plums should be picked and sold to develop the novelty market for them. Home orchards are important in the county and wild plums are recommended for home orchard plantings. A local cannery should be started to make plum preserves for sale with local trade mark.

Home vegetable gardens are quite successful in Lake county with limitations due to early and late frosts. More gardens are recommended.

VEGETABLE GROWING IN LAKE COUNTY

Name	Planting Dates	Inches Spaced	Ft. Row Width	Inch Cover	Frost Tol.	Growing Period
LEAFY VEGETABLES						
Spinach	4-15 to 6-15	4	1	½	Hardy	8-9 weeks
Swiss Chard	4-15 to 5-15	6	1½	1	Hardy	60-75 days
Cabbage (plants)	4-15 to 6-1	18	2		Hardy	9-16 weeks
Brussels Sprouts	6-1 trans	24			Hardy	125 days
Lettuce, Head	4-1 to 7-5	6-12	1½	½	Hardy	9-12 weeks
GREEN VEGETABLES						
Asparagus	plants 4-20	24	3	5	Stalks	2 years
Beans	6-1 to 6-20	4	2-2½	2	Tender	6-8 wks
Gr. Spr. Broccoli	5-1 to 6-1	18	2	½	Hardy	85 days
Peas	4-1 to 6-15	2	2½	2	Medium	8-9 wks
YELLOW VEGETABLES						
Carrots	4-15 to 6-1	2-3	1-1½	½	Hardy	8-9 wks
Rutabagas	5-15 to 6-1	4-6	2	½	Hardy	90 days
Squash (sum.)	6-1 to 6-15	48	4	1	Tender	8-9 wks
Squash (win.)	6-1 to 6-15	96	8	1	Tender	10-16 wks
OTHER VEGETABLES						
Corn	5-25 to 6-20	14-18	3	3	Tender	10-13 wks
Beets	4-20 to 6-15	4	1	½	Medium	8-10 wks
Parsnips	4-15 to 6-1	4-6	1½-2	½	Hardy	16-20 wks
Turnips	4-15 to 6-1	2-4	1-1½	¼	Hardy	8-10 wks
Cucumber	6-1 to 6-15	48	4	1	Tender	8-10 wks
Onions (seed)	4-1 to 6-1	3	1	½	Hardy	16-20 wks
Onions (sets)	4-15 to 6-15	3	1	2	Hardy	5-6 wks
Radishes	4-15 to 7-15	2	1	½	Hardy	4-8 wks
Tomato plants	6-1 to 6-15	30-48	4½-5		Tender	100 days

Landowners Responsible For Weed Control

Farmers should learn to recognize dangerous weeds found spreading in Lake county.

Dangerous weeds include White Top, Morning Glory, Canada Thistle, Knapweed, Blue Flowering Lettuce, Shoe String, Tansy, Deathweed, Bull Thistle,

Cocklebur, Mediterranean Sage, Poison Hemlock and Larkspur.

Crop yields are reduced by a great many weeds not considered dangerous but profits depend on farming methods to combat them, such as summer fallow, permanent crops, and selective sprays.

Each land owner has direct responsibility for controlling

noxious weeds on his land. Conservation payments available for weed control on private land is strongly recommended.

Farm weeds are the responsibility of individuals.

County roads and lands are the first weed job of the county.

State Highways, railroads, State lands and federal lands should have weeds controlled by the agency managing the land.

County-Wide Weed Control

District

A county-wide weed control district should be set up providing control laws in 1948 on part of the noxious weeds, with provisions for additional weeds to be included each year.

The county should hire a properly trained weed supervisor on full-time basis and equip him with sprayers adequate to cover county roadways. The county equipment should be used on private land only as time permits and a charge made for the work to cover cost.

Individual ranchers each need a plan of weed control and provisions made for necessary cultivators, sprayers, etc., to do the job. Custom spray machines are needed for field spraying but small home-owned sprayers or dusters are recommended for patch work.

Recommended Weed Control

Methods

(See county agent's office for special assistance).

Cultivation has not worked on sub-irrigated land in Lake county for weed control. This method is recommended as the most economical control for en-

tire fields where soil moisture can be controlled. This method works well with grain summer fallow systems.

Chemical weed control has new hope with the development of new materials. The new 2,4-D is very useful but it will not kill weeds 100 percent with one application. Its recommended use is for field spraying to reduce weeds in grain and annual use on noxious weeds to keep them under control. Small hand dusters using 2,4-D dust are recommended for poisonous weeds and Mediterranean Sage on range land inaccessible to machinery.

Soil fumigants are recommended for complete kill of spots of noxious weeds. Carbon Bisulphide and the newer, cheaper chemical called Prochlor are available.

Soil sterilizing chemicals are useful for roads, yards and spot work on farm land. Sodium chlorate is applied as dry salt in the fall in Lake county fields. Other soil sterilizing chemicals are useful but sodium chlorate is most widely used as an economical control which will weather away in a few years time. Heavy treatments might poison salt-hungry livestock.

Wilting and burning weeds will prevent seed formation but many repeated treatments are necessary to kill perennial plants. Oil sprays are knock-down treatments but do not kill perennials. Mowing is useful control in pastures to hold down spreading. Holding livestock off range is recommended to reduce noxious weed pasture for 24 hours before moving to clean spread.

CONSERVATION AND IRRIGATION COMMITTEE REPORT

Flood Waters Cover Much Of Irrigated Land

In Lake county 132,910 acres are listed as irrigated land but about 100,000 acres take up all water rights. Less than 10 percent is watered from storage reservoirs, so that most land is covered by wild flood water and uncontrolled stream flow. Approximately 66,000 acres of native wild meadow are cut for hay each season. The exact acreage cut over depends on the yield each year.

About 30,000 irrigated acres are either pastured or not used at all, due to seasonal flooding. All of this irrigated land is good, productive soil but seasonal floods prevent full production because it is too wet in flood season and too dry the rest of the year. Management of watershed lands to protect plant growth from fire, grazing and logging must be followed to provide silt-free water for reservoirs and late irrigation for flooding meadows.

Different Irrigation Practices Used

Water sources include natural streams, rivers, springs and waste water from irrigation districts.

Water is distributed to natural creek channels, ditches and canals, and dikes. Some ranchers allow land to flood in spring. Others build large check and spreader dams to distribute seasonal flood water and catch any silt brought down from the

mountains.

Water is delivered to highest possible fields by contour ditches. Water should run slowly to sub-irrigate lower ground. Wood, concrete, or metal headgates are used to divert water into main irrigation ditches from natural creek channels.

Flood Water Control, Drainage Recommended

Flood water should be controlled by storage in the low mountains, where storage sites are available to allow for a longer supply of water during the entire growing season and to prevent excessive floods each year.

Diversion canals should be constructed to control flood water wherever necessary, using AAA payments to help finance earthwork.

All low wet areas should be drained. Dynamite is an economical method of constructing drain ditches on wet land. However, draglines or shovels are more economical and do a better job where they can be used.

Water should not be allowed to stand on meadows over a long period of time, as the most desirable types of native grasses are killed out and replaced by undesirable types of water grass.

Water should not be allowed to run over or stand on meadows in the winter time.

Improvement of Native Meadows

Native grasses should be removed and reseeded to perma-

nent types of acceptable perennial tame grasses. (Consult County Agent for varieties).

Native meadow should never be plowed up until flood water is controlled on areas to be plowed.

Before reseeding meadows they should be leveled and an approved system of irrigation established.

Meadows should be cultivated for at least two years before attempting to seed to permanent grasses and legumes.

Consult County AAA committee for approval on renovation and reseeding in order to be eligible for AAA payments for work completed.

To irrigate native meadows that have not been renovated and leveled:

1. Spreader dams should be constructed of earth and sod to prevent erosion and tramping out by livestock.

2. Large check dams should be constructed in gullies and deep washes to hold any silt that may be washed in by flood water and to prevent any further washing or erosion.

3. Renovate and reseed any areas of meadow where water is controlled.

13,000 Acres Under Controlled Irrigation

At the present time Lake county has approximately 13,000 acres under controlled irrigation systems. These systems may be described primarily as: Lakeview Water Users, Inc., supplying water for approximately 10,000 acres; the Thompson reservoir project, supplying water for approximately 1,000 acres; and Summer Lake project, with 1,800 acres.

Under the Lakeview Water Users system there are two reservoirs, namely, Drews and Cottonwood, with a total capacity of 66,500 acre feet. All reservoirs are supplied with water from the annual runoff of snow and rainfall from the adjacent areas, except that of Summer Lake project. It is principally a diversion of the Ana River, which has a constant flow and so storage water is required.

Distribution of all water from the reservoirs to the users is through a system of canals and laterals. The current practice of distribution is to deliver water to the user in accordance with his requirements, insofar as practicable and possible. This is required, since no current means of measuring all water delivery is available and the amount of water which can be delivered through the canal and lateral system is not sufficient to supply adequately all acreage when desired.

At the present time under the Lakeview Water Users, Inc. system there exists approximately forty miles of main canal and two hundred miles of laterals. The widely scattered distribution of water requires this extensive canal system and leaves a large number of acres directly under the system not under irrigation.

Improved irrigation distribution Recommended

Districts should continue improvement of distribution facilities and measuring devices to insure adequate and equal water distribution.

Surveys by the Bureau of Reclamation and others should be encouraged as a means of lo-

cating new reservoir sites and distribution ditches.

A Soil Conservation district is needed to furnish technical assistance to both farmers and irrigation districts.

AAA committee should be consulted for use of available payments on canals and individual farms to improve irrigation systems.

Proper Handling of Irrigation Water Important

Variations in soil types and slopes dictate which irrigation system each farm must use. Each farmer should study his condition and use best system to fit the needs.

A detailed soil survey is needed for irrigation districts.

Water should be spread evenly but not excessively. Prolonged soaking is harmful to soil and crops by leaching away plant food and suffocating root zones. It also causes alkali and drainage problems to develop.

Land should be surveyed carefully first, and then levelled to allow even distribution without harmful soaking of low spots in an effort to wet more difficult areas. Extensive leveling is recommended, but it must not remove soil deeper than productive top layer on the cut-away areas. Machines that carry soil level cheaper than those that drag soil. Land planes and other smoothing equipment are necessary to finish but do not do primary leveling efficiently.

Ditch layout on fields is important to save labor and yet handle water properly. Length of head ditch will depend on slope and soil texture. Sod crops will handle much longer sets than annual crops. Soil that subs

easily may become water logged near long head ditches.

It is advisable to corrugate steeper fields and flood land with gentle slopes.

Strip border irrigation has proved a real labor saving system on even slopes if carefully laid out. Ridges must be wide and high enough to accept settling and still keep strips properly separated.

Farmers are advised to: make use of County Agent's office on irrigation problems; find experience of others in the area; use experience of State Specialists; and obtain assistance in layout surveys.

Soil Conservation Action Needed

Crop rotation. This committee recommends that a crop rotation practice for the individual farm be worked out with the County Agent and the Soil Conservation district personnel when available.

Fertilization. We recommend the use of more fertilizer than has been used in the past. We believe that fertilizer can be used to advantage on the lighter soils and for other crops in addition to potatoes. Crop residue and green manure should be used to build organic matter to increase yields, reduce erosion and save irrigation.

Water and wind erosion. Water erosion, while it may seem small in this section of the country, is great enough to be important. Contour farming some of the steeper ground and reorganizing most irrigation systems by leveling and a more scientific application of water would reduce this materially. Gullies in meadows lower the water level and

careless irrigation is washing away top soil in steeper slopes. Sheet erosion from spring floods must be avoided. We recommend that much of the higher dry land in the county now in grain be planted in alfalfa or dry land grasses to reduce loss from wind erosion.

Drainage. We recommend that a drainage program be worked out for all irrigated areas. Only by such a program can all the land now in use be kept in cultivation and many thousands of acres can be reclaimed. By the organization of the Soil Conservation district and securing the services of the Conservation Engineers, such an overall drainage plan can be put into effect.

New Irrigation Developments

There is no available water source in Lake county to irrigate new acreages of any size. Productivity of rich soil in meadows and marsh lands can be increased many times by storage of seasonal floods and proper irrigation. Much of this good soil is flooded part of the season, yet becomes too dry for crops part of the year. Creeks without sufficient storage developed to control flood waters should have safe channels constructed to permit voluntary irrigation as desired. Many such channels would be community projects.

Goose Lake Valley. The Bureau of Reclamation is engaged in making a complete survey as requested by Lake county. The complete report will be of great value to show development possibilities. Actual work will have to be started and arranged by local people. The 23,000 acres now irrigated prob-

ably can be more than doubled in production.

Deep well pumping for irrigation around Goose Lake should be tried where the water is needed.

Safe channels are needed to handle flood water from above the hay land into Goose Lake for Thomas Creek, Cox Creek, Bauers Creek and parts of other creeks which flood farm lands. Proper water flow could thus be turned on the farms as desired.

Chewaucan Valley. A complete survey is needed here to find extent of developments possible.

Water should be stored in reservoirs and used to irrigate the same lands it now covers at flood stage. There appears to be good reservoir sites on the river above Paisley which could irrigate the 39,450 acres now partially productive as marsh hay and pasture.

Warner Valley. A complete survey is needed to find how much water can be stored in reservoirs and where they could be located.

Acreage now flooded is 38,000 acres. It appears that this area could be greatly improved by using irrigation water properly controlled.

Individual ranchers should consider the possibility of community cooperation before spending large sums for dikes to control water on any one ranch. Some of the present work might be obsolete if agreement could be reached on a cooperative project.

State owned lakes leased for draining and farming in Warner Valley should have a coordinating plan of drainage. It is recommended the county court,

chamber of commerce and farm organizations should insist on state surveys to show location and extent of dikes and ditches.

Silver Lake. The area under irrigation is 11,050 acres. There is a possibility of some additional storage reservoirs.

Thompson Valley project must be reorganized and set up on a sound financial basis before it can be improved. The irrigation ditches and land served needs repair and organization.

Fort Rock Pumping Project. Irrigation by pumping plants in this area is quite desirable for range livestock ranches for producing winter feed.

Pumping is not recommended for small farms with income only from acreage irrigated. Good farmers can make a living on these places but the average operator would probably fail. Expanded irrigation would not improve the county for this reason.

Small Reservoirs Encouraged

Private reservoirs are encouraged in the county since small dams any place are helpful. They hold run off water for irrigation and aid erosion control. They also provide stock water on range.