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## Oregonians Shift to Specialty Crops

The switch Oregon farmers made to seed crops in 1930 has expanded into an annual \$7,000,000 business. In 1939 the farm value of the seed of forage crops exceeded \$5,000,000 in the state and during the past spring and summer a large increase in production was made. Big acreage is in the Willamette valley.

By 1921 wheat was in disfavor with many Willamette farmers. G. R. Hyslop, head of the division of plant industries at Oregon State college, was talking seed crops to replace this grain. A few others took up Hyslop's theme. Vetch and clover were being raised, but the acreage of other forages for seed was negligible. In 1924 Austrian winter peas came into Willamette production. Greatest

### Defrosted

World's biggest defrosters are being installed at Grand Coulee dam, east central Washington. Nine miles of electric heating cable and 33 large steel plates are being placed along the top of the structure to insure its proper winter operation. Such gigantic heating apparatus is to prevent ice formation that might freeze tight the 11 huge drum gates which control flow of the Columbia river over the 1,650-foot overflow spillway of the dam. Without "de-icing," the ends of the gates during low temperatures probably would be frozen to the spillway piers or an icy bond might form where they rest on steel bases.

advances did not occur, however, until after 1930, when tariff legis-

lation afforded domestic seed growers price protection which encouraged them to expand. Since that time soil conservation practices, particularly in southern and southeastern states, calling for cover crops, have stepped up the demand and opened the way for further expansion.

Today Oregonians have moved into front rank as producers of specialty farm products. In 1939 all so-called specialty farm products in the state had a farm value of \$22,000,000. It is safe to assume that this year the value of the same items has exceeded \$25,000,000. Seed crops represent the largest group in the list.

Oregon farmers and their leaders now look ahead further and are

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Turkeys are classified as one of the specialty products produced in Oregon. Farm value in the state this year of all specialty products reached \$25,000,000 and included forage seed crops, fiber flax, flaxseed, mint oil, hops, sugar beets and sugar beet seed, ginseng and goldenseal, greenhouse products, nursery crops, bulbs, holly, flower seeds, furs, apiary products, small fruits, filberts and walnuts.



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## NORTHERN PACIFIC RAILWAY

"First of the Northern Transcontinentals"

J. W. HAW	St. Paul, Minn.
Director	
W. J. HUNT	St. Paul, Minn.
Assistant to the Director	
A. J. DEXTER	St. Paul, Minn.
Agricultural Development Agent	
A. R. MIESEN	St. Paul, Minn.
Livestock Development Agent	
H. W. BYERLY	St. Paul, Minn.
Immigration Agent	
L. S. MacDONALD	Missoula, Mont.
Agricultural Development Agent	
W. P. STAPLETON	Seattle, Wash.
Western Agri. Development Agent	
L. E. LOWE	Seattle, Wash.
Agricultural Development Agent	

This magazine is sent free for five months to those indicating an interest in the Northwest states. On expiration of that period it may be obtained on a yearly basis by sending 25 cents in stamps, coin or money order made out to Northern Pacific Railway. If you wish to renew on a complimentary basis for five months this may be done by making a written request.

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## OREGONIANS SHIFT TO SPECIALTY CROPS

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asking whether still other items of a special character can be established successfully under their favorable soil and climatic conditions. As an illustration, they are thinking about the pyrethrum business. An insecticide that has general household and garden use and is now increasingly applied in field and orchard sprays and dusts, it brings an annual importation into the United States amounting to 10,000,000 pounds of pyrethrum flowers. Gathering the flowers is too tedious and expensive for U. S. farm labor. Oregon scientists believe they can devise a way of recovering pyrethrum from seeds of the plant economically instead of using the flowers. If they do it, there's another crop opportunity.

Oregon farmers grow 85 per cent of the bent grass seed used in the United States, 95 per cent of the Italian rye grass seed used in this country and a large percentage of the English rye grass seed. They

produce all of the Chewings fescue seed grown in United States and all of creeping red fescue seed raised here. They are almost the only growers of hairy vetch seed in this country and raise a large percentage of the Austrian winter pea seed. They doubled their acreages of hairy vetch and pea seed in 1940 over 1939 and got a fairly good crop. In 1939 they harvested 75,500 acres of these two.

Large amounts of alsike clover seed, red clover seed and half of the Ladino clover seed used in this country come from Oregon farms. Other forages from which seed is raised in the state include sweet clover, crimson clover, small white clover, strawberry clover, several kinds of alfalfa, crested wheatgrass, common vetch, Hungarian vetch and purple vetch.

In addition to forage seeds, items included among Oregon's specialty farm products include fiber flax, flaxseed, peppermint for oil, hops, sugar beets and sugar beet seed, ginseng and goldenseal, greenhouse products, nursery crops, flower bulbs, holly, flower seeds, cut flowers, turkeys, fur and game farms, apiary products, strawberries, red raspberries, blackcap raspberries, loganberries, youngberries, boysenberries, gooseberries, tame blackberries, cranberries, filberts and English walnuts.

## MONTANA PROJECTS

Montana State Planning Board has summarized over 30 potential irrigation projects in western Montana totaling 139,381 acres with a possible water supply amounting to 231,079 acre feet. Necessary storage and canal construction costs are estimated at \$5,262,360. The projects would involve both supplemental water and irrigation of areas not now watered.

## WILL IRRIGATE

Farmers on the south side of the Clarks Fork river, near Plains, in western Montana, are financing and building an irrigation project to pump water for 300 acres. They have negotiated with contractor for bulldozer operation to do their canal work.

## CLOSE-UPS

Short Paragraphs About Agriculture in  
Northern Pacific Territory

New settler Henry Bremer at Littlefork, northern Minnesota, has 13 head of purebred Percheron horses. "I picked out a good alfalfa farm and am going to raise livestock," he said. Bremer bought 200 acres.

Other recent Littlefork newcomers who have bought or rented land are M. F. Horn, from Missouri, William Gemvend, from Chicago, and Joe McDaniels, from Kansas.

J. O. F. Snider arrived in northwestern Washington on Aug. 15, last, looking for a farm home. It took him a month to get located. He rented 105 acres consisting of 40 acres of meadow, pasture and cultivated crops, with the balance orchard and timber. He has eight cows and wants to get 16 more in the spring. He will get 300 to 400 chicks next year also. "We have fruit, vegetables and nut trees," he says. "We surely like it here. Everything is green and we have spring water piped to different buildings."

J. A. Hanson, Corvallis, Ore., has won another prize with high-producing hens. In the Storrs, Conn., egg-laying contest, 13 of his White Leghorns have established a new world record by laying 4,041 eggs in 51 weeks. That's 310 eggs per hen and a few left over for good measure.

Keith Shepard and Irving Jones, Deschutes county, Oregon, farm boys, each won a \$250 scholarship demonstrating the preparation of dairy cattle rations in a contest at the National Dairy show in Harrisburg, Pa.

Dave Metalman harvested 26 tons per acre of sugar beets from 26 acres this fall in the Bitter Root valley, western Montana.

D. E. Mahoney raised 20 acres of oats averaging 80 bushels an acre the past summer on the Broadwater-Missouri Irrigation project in western Montana.

William Prosser's ranch, also on the Broadwater-Missouri project, yielded 110 tons of alfalfa hay on 19 acres in three cuttings.

An eight-acre field in sugar beets two years in succession yielded 21 tons per acre this fall for Jim Hargrove, western Montanan, on the Broadwater-Missouri project.

Grover Baichley and Mrs. Baichley live on a 10-acre farm they bought this fall six miles north of Tacoma, Wash. They moved out from Chicago.





People went on trains, in cars and trucks, on horseback and bicycles to the opening of the Union Stockyards at Billings, Mont., recently. Here is a part of the crowd of more than 12,500. In the background is the covered section of the new yards for sheep and hogs. Cattle pens are in the center of the picture and to the right. All livestock pens cover 17½ acres.

## More Stock Business in Montana

To Montana has come still further importance as a livestock center with the opening during September of the Billings Union Stockyards, at Billings, representing in land and construction an investment amounting to \$175,000 and providing a public market with pens for 5,000 head of sheep, 5,000 cattle and 1,000 hogs.

Under the management of Dale Wilder, a Montanan for the past 38 years, the new yards began operation on Sept. 23, following dedication ceremonies which were attended by more than 12,500 people. By opening date three selling agencies had established themselves at the market, where they are now operating, using experienced men trained at other markets. These firms are the Central Co-Operative association, the Farmers' Union Commission company and the C. L. Govern Livestock Commission company.

Billings first became a lively market for cattle, sheep and horses from the range country in March, 1934, when the Billings Livestock Commission company, headed by genial, hard-working Art Langman as president, began operation of a stockyards and auction market which have functioned ever since, handling millions of dollars worth

of livestock every year. Today, with two markets established, livestock volume going through the Billings gateway to both eastern and western buyers is stepped up still further.

Construction of the new yards, started on July 6, last, was completed in 89 days. It involved building 17 acres of pens, with two and a half of these acres, under roof and paved, for sheep and hogs. It included installation of two large and delicately adjusted scales sensitive down to a small fraction of a pound—one for weighing cattle and another for sheep and hogs. Also included were the new exchange building with 14 office rooms and a cafe, a hay shed and a service building. A mile and a half of railroad track were built in to serve the new yards and unloading and loading platforms and chutes were installed for both rail and truck service. Water lines, hydrants, troughs and the drainage system were sizable jobs in themselves.

Largest proportion of livestock clearing through Billings now consists of feeder cattle and lambs from surrounding Montana and Wyoming ranges. In time volume of fat stock handled there will in-

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## New Land

First Irrigating Will Be Done on Roza Division Next Year

First irrigation on the Roza division of the Yakima project in central Washington will take place next spring. Construction of laterals out of the Yakima Ridge Canal, sublaterals, turnouts and weirs now is in progress and will be completed to handle water to 3,000 acres early in 1941. This will include 450 acres in the East Selah district north of Yakima and 2,550 acres extending to Sawyer, southeast of Yakima.

Initial irrigation of new land on the Roza division will be followed in 1942 by the addition of several thousand acres more for which laterals and substructures will be built during the coming year, making water available down to No. 4 wasteway on the main canal, a little below Zillah.

On the first 3,000 acres sagebrush clearing has been started by landowners looking toward crop production. It is expected much of this first section of the Roza division will be planted to potatoes. Water will be used on a rental basis next year at \$2.50 per acre. In 1942 water rents probably will be lower on account of greater acreage that will be served. This figure does not take into account repayment for construction which, when it is required, will increase the annual per-acre charge.

Contract will be let this winter for building 20 miles more of the Yakima Ridge Canal, which will bring it down to Sunnyside. When Roza is completed it is anticipated it will water 72,000 acres. At the present time this land has few improvements, outside of project construction, and on most of it the sagebrush has not been cleared.

## FARMS USE POWER

Electric service is used on 38,438 Oregon farms, 62.87 per cent of all farms in the state. The number represents an increase of 4,660 farms over those getting service a year ago.

# How Goats Clear Washington and Oregon Land

In the Pacific Northwest Angoras Clean Out Brush and Fern Ahead of Cattle and Sheep

"The Angora goat is the only thing that will clear your land and at the same time board itself," says Joe Carstairs, based on over 30 years' experience in raising goats.

In 1875 Mr. Carstairs, then a lad of 19, was en route on a small sailing boat from his native Scotland to America as attendant with a shipment of purebred Shorthorns consigned to a breeder in Illinois. Having delivered his stock in good condition, Carstairs continued westward to see what America had to offer. Working a few years on railroad construction and saving his money, finally, in 1883, he went to Washington, intent on finding land and settling down. Before the year's end Carstairs purchased a quarter section in Mason county, Washington, 20 miles west of Shelton, where he experienced the hardships of the pioneer in this vast timbered country, clearing land by hand upon which to raise feed for livestock, a slow process. He kept on working, always figuring how land could be cleared more easily and at less expense.

Not until the turn of the century did Carstairs consider Angora goats, when he located and purchased a small flock. Now, hale and hearty at 84, Carstairs still maintains his Angoras as a permanent part of his livestock program. They have become a part of his way of farming. With a tone almost of affection, Carstairs comments, "The last animals I would want to see leave the farm are my goats."

The Angora has rendered Carstairs long, faithful and invaluable service in clearing his land of underbrush and making possible expansion of his livestock business—a means to an end, therefore.

Although he is considered a pioneer in goat raising, Carstairs was preceded by numerous other important breeders in western Washington and Oregon. For 70 years the Angora has been a leading factor in development of the famous Willamette valley of Ore-



Angoras on Joe Carstairs' ranch in Mason county, western Washington, where goats have been clearing land for more than 30 years. This view illustrates that by choice the Angora confines his feeding generally to tender brush and shoots and leaves, with only an occasional trip to tender grass meadows, to which he has access at the Carstairs' ranch. The cleared area in the background is a bluegrass pasture on which Carstairs is grazing sheep.



General view on the 712-acre, C. D. Blanchard ranch in the Willamette valley, Oregon, showing part of 130 acres of goat-cleared land. Blanchard has 140 goats and wants more to keep down the brush and improve the range.

gon. Today, the two states have an Angora population of about 130,000 head, with most of the entire population confined to the western counties. This number exceeds by several thousands the Angora population of 1935, which indicates an increasing interest in the Angora as a means of furthering land improvement.

## Increase in Washington

Although the state of Washing-

ton has not assumed the lead in Angora goat production, evidence points to future expansion. With more attention being directed to clearing of logged-off land, the increase in number of new settlers and the natural increase in grazing of the lands by beef cattle and sheep, study has been directed toward improvement of range conditions. Many thousands of acres, ideally located for grazing pur-





poses, do not have sufficient carrying capacity for livestock due to dense growth of underbrush. Time and expense of brushing are important factors in preparing the land for grazing.

The Angora has shown that by nature it thrives on browse. Land of higher elevation covered with brush provides the natural habitat, where the Angora feels entirely at home. Being good rangers, goats prefer browsing of the tender shoots, leaves, bark and growing portions of brush. Continuation of this constant browsing eventually subdues the brush. Experience shows that the speed with which land may be cleared depends on the number of goats per acre and the extent to which they are confined to a given area, as well as the density of the brush. Ordinarily, the Angora will satisfactorily subdue underbrush in two to three years. This is on the basis that from two to five goats per acre are used. In such cases experienced raisers report absolute destruction of practically all underbrush.

### No Tin Can Diet

Too often eagerness to clear land supplants good judgment, with the goat the victim. It is good practice to rotate the range, permitting the goat to enjoy new range for certain periods, yet not long enough to allow brush partially subdued to become re-established. The Angora, after all, is an animal requiring humane treatment and care, and will pay dividends only when tendered this care. The common belief that goats live on practically nothing, including tin cans, is erroneous. Any such ideas in the mind of those intending to purchase Angoras should be entirely dispelled, and the fact fully realized that goat raising is an enterprise requiring reasonable care if satisfactory results are to be obtained.

The new settler who contemplates a program of land clearing or the expansion of livestock business should give thought to Angora goats. Low initial cost of breeding stock, for \$2 to \$3 per head, minimum feed requirements, combined with their natural aptitude for land clearing and the fact



Silas Towne, western Washington, points out how goats completely girdle the tender trunk of the vine maple, stopping growth. Towne has 160 grade Angoras. Goats have pretty well cleared 280 acres for him in five years, making good grazing land for cattle and sheep.



On the C. D. Blanchard ranch, in Oregon, a field of oats in the foreground and at the left illustrates by its comparison with the brushy land on the right the use of goats in clearing. They cleaned up the oat field before it was stumped out, plowed and seeded.

that they will at the same time pay dividends from the sale of mohair, appeals to the practical farmer. In many cases, a farmer has sufficient acreage yet, due to underbrush, suitable range for more dairy cows or a farm flock of sheep necessary to make his farm program profitable is not provided. In many instances, the Angora has been the answer. When the brush has been subdued and the soil exposed, grass mixtures have been sown under conditions favorable to their growth. Following this range improvement, the necessary cows or sheep are added and can be maintained.

### Overcoming Failure

Too much emphasis cannot be placed on care of the herd. The inexperienced farmer frequently learns too late that proper care is the basis of success in goat production. Silas Towne, Cowlitz county, Washington, relates his story, first of failure and then success.

In 1935 Towne purchased 280 acres of rolling land completely covered with a heavy growth of underbrush. He found the carrying capacity insufficient to support a satisfactory number of cattle or sheep. At the suggestion of Claude Anderson, Cowlitz county

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## Irrigation District's Comeback

The Richland Irrigation district in central Washington has 4,590.5 cultivated acres in private ownership. In 1933 when the district refinanced an overload of bonded debt, assumed in earlier years for construction, only 3,400 acres were owned by farmers, although some additional land, district-owned, was farmed at that time.

Farms in the Richland district are small, most of them from 10 to 20 acres. Intensive cultivation and one-man operation are the rule, with extra help hired in season for cutting asparagus, cherry picking, grape or berry harvest. A few pigs, cows, chickens or turkeys are kept on most of the farms.

The increase in seven years in privately-held land has resulted from purchases made both by local farmers and by people from other communities and from other states.

Recently Paul Burrows, for example, went to Richland from northern Iowa and bought an improved 15-acre farm for \$2,000 from George Snow, who has lived in that section 30 years and now will retire, moving to town. Burrows' new farm grossed \$1,800 last year for Mr. Snow. It has six acres of five-year-old asparagus, two acres of grapes, an acre of strawberries and open land for other crops. Three years ago A. A. Lucke, relative of Burrows, moved to a farm in the Richland district from Martin county, Minnesota.

Of the land suitable for cultivation now owned by the Richland Irrigation district the directors of the district are willing to sell only 150 acres. This is land mostly unimproved but it has an adequate water right under provisions of the project. Only four owners of small improved farms in the district at this time desire to sell. These men either wish to retire or have other interests which require that they discontinue farming in this community.

In 1933 the bonded indebtedness of the Richland Irrigation district was \$145,500 after reorganization and refinancing. Since that time its obligations have been fully met for operation and maintenance, in-

### Future Herds

Slope county, western North Dakota farm boys, with the guidance of Clarence Lambourne, a former Iowa farmer, are building up herds of beef cattle. Bob Lambourne, now a student at North Dakota Agricultural college, competing in a district 4-H club show at Bismarck recently, exhibited four female Herefords, all descendants of one purebred cow, comprising his start toward a herd of cattle.

terest and debt retirement. The principal of the bonds has been reduced to \$126,600. The reduction of \$18,900 has been made in a comparatively short time, since no repayments on this account were required for five years after reorganization was completed. Charges for water amount to \$5.65, which allows \$3.45 an acre for operation and maintenance, \$2.10 for interest and bond payment and 10 cents for drainage. All growers have been receiving without additional cost more water than their contract with the district specifies.

Also of recent note on the project is a spurt in the repair of old buildings and construction of new ones. New building and repair are taking place in the town, Richland, trading center of the district. This has been topped off by the modern grade school building, to which busses bring children from the farms. This building has several features, including a large and well-equipped gymnasium.

### HOW GOATS CLEAR WASHINGTON AND OREGON LAND

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agent, Towne purchased 20 head of grade Angoras in 1935, and "assigned" them the job of clearing his land. Effect of their grazing was almost immediately noticeable. He has continued to add to his flock and at present has 160. Towne now runs 54 head of ewes and 30 head of cattle, which he considers the foundation for a sizable livestock business. "Goats have certainly performed a service for me," he says. This can be de-

tected even by a casual inspection of the range in comparison with areas not "goated."

Towne, however, did not get the increase to which he felt entitled. Mortality among the kids ran high. This, he discovered, was largely due to early kidding during inclement weather, and other factors within his control. From now on, Mr. Towne expects close to 100 per cent crop of kids annually. Dry, warm shelter in bad weather is helpful, but it need not be an expensive building.

"Care is essential," says Towne, "just as it is for sheep or any other livestock, and if you don't realize it, you're going to fail." When asked if he would dispose of his goats once the range was improved, he replied, "No sir, my goats will be right here, as they not only make the range but they keep it in good condition through continuous browsing."

### Justice for Goats

Widespread belief that Angoras are the type of animal that will thrive under any and all conditions and that all that is necessary is to turn them loose in the woods, is in error, and is an injustice. There is also the belief that goats are objectionable from standpoint of odor. On the contrary, the Angora is practically odorless, except the buck during breeding season. They are clean, intelligent animals, growers in Washington and Oregon say.

### Tough on Ferns

Commercial goat raisers do not contend that the Angora will subdue fern. It is generally conceded, however, and borne out by the observation of many ranges, that the Angora will, through trampling and occasional browsing, subdue fern to a point where its growth does not seriously interfere with forage growth. It may be said that they "make life miserable" for the fern.

The Angora produces a fine, long, strong, lustrous coat known as mohair, which takes dyes readily. Chief uses for mohair include upholstery, particularly for the automotive industry, draperies,

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# Farm and Home Opportunities

You may select from this list of typical bargains or ask us for other propositions suited to your needs. Additional information, including addresses of the owners, will be furnished on request.

## MINNESOTA

M-214—100 acres, five miles from Northome, on good road, in northern Minnesota. Land lies gently rolling, five acres cultivated, two acres cleared and ready for plow, clay loam with clay subsoil. River runs through 40 acres of hay meadow. Some good timber along river for building purposes, lots of fuel wood. Place is adapted to general farming. Will sell for \$3 per acre if purchased this fall. Some terms if necessary.

M-215—121 acres with about 65 acres cultivated. Good house with basement, furnace, maple floors upstairs and down. Barn for about 24 head of stock, granary, garage and corn crib. Forty acres of timber which owner claims will go a long way toward paying for land. Near school, church and store, about two miles from Ottertail lake, in west central Minnesota, where there are many summer cottages and a number of business establishments. Price of farm, \$2,800. Half cash will handle.

M-321—233 acres, two miles from Glyndon, in western Minnesota, on main line of Northern Pacific Railway. Six-room house, barn, 28x40; granary, cement potato house, well. Soil adapted to corn, potatoes, oats, barley and Durum wheat. Price, \$25 per acre. About one-fifth cash, balance payable over long period, five per cent interest.

## NORTH DAKOTA

N-352—589 acres, in Red River valley, eastern North Dakota, seven miles from Wheatland, one and one-half miles from school, church. Complete set of good buildings, two barns, one leanto, hog house, chicken house, two granaries, artesian water; 400 acres cultivated, balance pasture and farmstead. Fertile black loam with clay subsoil, adapted to corn, small grains, clover and alfalfa. Place also suited to livestock as there is good pasture, feed and water. Price, \$13,000. \$2,000 cash, balance payable on amortization plan over long period of years.

## MONTANA

S-1—Complete poultry farm unit, in Bitter Root valley, western Montana, one-half mile from Stevensville, on hard-surfaced highway. Consists of five acres with nine-room house, part of basement used for canned goods and egg candling room; small tenant house with basement for vegetable storage; incubator house, 14x20, cement floor, with 8,000-egg incubator; garage and woodshed. Several laying houses, all have smooth cement floors and double

insulated walls, six have automatic water founts, one with granary adjoining. Five movable brooder houses, also double-boarded granary besides one mentioned above; cow barn, 14x18; water piped to buildings from drilled well with pressure tank and electric pump, all buildings electrically lighted. Abundance of irrigation water, owner says for past 10 years has not cost more than \$1 per acre per year. Lily and fish pool, flowers, bulbs, trees and small fruits. Outside picnic stove, tables, playground equipment. Northern Pacific Transport passenger and freight buses go past door daily. Price, \$5,000.

S-257—440 acres suitable for general farming, dairying and small bunch of sheep, about half is tillable and under cultivation, producing hay and grain. About 60 acres are irrigated under government project and the balance of tillable land is largely subirrigated and produces crops without irrigation. Rest of tract is mostly river bottom and brush pasture. Land is watered by springs and sloughs. Seven-room dwelling, large barn, granary, chicken house, hog house, machine shed, shop and numerous other buildings. Located 18 miles from Missoula on hard-surfaced road and less than two miles from small railroad town and schools. Price, \$15 per acre, with \$3,000 cash, good terms on balance.

## IDAHO

I-1—Five acres adjoining Coeur d'Alene, Kootenai county, northern Idaho. Not lakeshore land, but only 450 yards from one lake and half mile to another. Good soil, mostly cleared, some hillside and timber. House is modern with water piped in, electricity, hot water heat and brick fireplace, bath and basement, sunporch, maple floors, den, six rooms, landscaped grounds and yard. Considerable berries and grapes. City water under pressure, well water, telephone. Large brick stuccoed garage and work shop, storage rooms, small barn, close to town, three blocks from highway. Party offering property appraises it at \$7,000. Owner must return to Canada at once so will sell for only \$3,600. \$500 cash, balance to be arranged. Suitable for poultry, fur farm, gardening, berries. Low taxes.

I-408—110 acres, four miles from Coeur d'Alene, close to good fishing and hunting, 30 acres cultivated, six-room house, good-sized barn, other buildings, spring water piped in house. Price, \$3,500. \$1,000 cash, terms on balance.

## WASHINGTON

W-958—160 acres for farming and grazing, cutover land, 10 miles from Castle Rock, Cowlitz county, southwestern Washington. Good road, small creek; not hard to surface clear. Price, \$1,600. Small down payment, balance \$16 per month.

W-960—About 162½ acres in Roza division of Yakima project, central Washington, about 115¼ acres classed as No. 1 land, about 31½ acres No. 2 land. Dealer offers this tract for sale at the appraised price, plus two dollars per acre brokerage. We are informed appraised prices of No. 1 lands in the Roza range from \$14 to \$18 per acre, and for No. 2 lands, \$8 to \$12 per acre.

W-206—20 acres with five and one-half acres asparagus, eight acres alfalfa; had three acres corn and one acre tomatoes this year, about three acres in pasture. Four-room house, barn, 26x36; chicken house, 24x60; garage, electric lights in all buildings, plenty irrigation water, four and one-half miles from Kennewick, in Columbia Irrigation district, central Washington. Owner asks \$3,000 for this farm.

W-959—200 acres, about 10 miles from Goldendale, in south central Washington, one and one-half miles off state highway. New gravel road being built through property to highway. 70 acres of bottom land in alfalfa, owner says about 60 acres more can be cultivated. Two year-around streams, good house, barn and other buildings. Price, \$3,500. Half cash will handle.

W-661—40 acres, four miles from town, in Sunnyside division of Yakima project, central Washington. Seven-room house, large sheep shed, good barn and silo, cow barn for 10 cows, good well with pressure system. Land all irrigated and cultivated, water right paid up, \$1 per acre annual assessment for operation and maintenance. School bus by door. Price, \$4,000, with \$1,000 down payment, balance \$500 annually, interest six per cent.

## OREGON

O-656—240 acres, 18 miles from Eugene, western Oregon, about 30 acres cultivated, balance is open pasture, piling and wood timber. Cheap but livable buildings. Good berry, fruit and nut land, also adaptable to grains. Creek for stock water runs through place. The price is \$1,500, with \$500 cash and reasonable payments on balance.

## Bitter Root Strawberries Sold in New York

Bitter Root valley strawberry growers in western Montana made a comeback this year with their everbearing variety, which they call the Gem. Between Aug. 26 and Sept. 25 they shipped eight carloads of these berries—big, bright red, shiny fruit—to New York, Boston and Chicago. On Oct. 19 berries for local use in western Montana still were being picked in the valley but windup of the season was near at hand.

Bitter Root strawberries bridged the 2,600-mile gap between Missoula, Mont., and New York in about 60 hours, traveling by passenger train. Eastern inspectors reported they were in good condition on arrival at the markets and the fruit maintained its quality during distribution in retail trade in the cities.

More than 100 acres of Gems are in commercial production through the Bitter Root valley and are grown on a good many irrigated ranches. Largest shippers this year, however, were Frank Denchoff, Spero Angeloff and George Regis. Bearing in volume when strawberries are rare on the important markets, the crop brought a satisfactory price. During one season about 15 years ago the valley sent more than 65 cars of strawberries to eastern markets during a few weeks of the fall harvest. After that season production lagged and shipping dropped off.

This year an important factor in the strawberry comeback was a new wrinkle in handling fresh fruit—treatment with carbon dioxide, the gas that makes bubbles in soda pop. After the berries were gassed they stayed fresh and stood up longer than the same kind not treated. Brought in from the field as soon as possible they were placed in a cool room at the creamery at Hamilton. In this room they were given the gas, from three to eight hours of it for each lot of berries. This retarded their respiration and, therefore, kept them fresh and bright longer. It does not change the color or flavor of berries. Fruit picked in the



Superintendent Pollinger, right, at the state experiment station in the Bitter Root valley, Montana, shows a friend the everbearing strawberry variety, called Gem, that grows in the valley used to produce fruit for Atlantic coast markets this year.

morning was cooled and gassed during the night and loaded in refrigerator cars for shipment the following morning before sunup.

Gem everbearing plants set out in the spring bear 90 to 100 crates of berries the first fall. The following year they make from 150 to 200 crates. Frequently they give bigger yields. Will Demetoff, Bitter Root grower, got 600 crates from two acres this year. There is a six-week period during harvest when volume is ample in the valley for shipping.

Growers had a few crates of raspberries to go with the carloads of strawberries this fall. Raspberries were just as popular with retailers as the strawberries. In fact, they sold considerably higher and made a larger net return per case. The St. Regis variety of raspberry is used. Unfortunately difficulty was encountered with some of the shipments due to the hallock used for both strawberries and raspberries which was reported as not conforming with latest market regulations regarding packaging. While it is the same hallock used in the valley for many years, plans already are under way for correcting the situation and making further shipments in 1941.

## MORE STOCK BUSINESS IN MONTANA

(Continued from page 3)

crease. There are two packing firms in Billings. Hogs from North Dakota, eastern Montana, South Dakota and Nebraska may be handled for Pacific Coast packer trade. Fat lambs and cattle from the near-by beet sugar areas will be gathered there for both eastern and western trade. In the immediate Billings area more than 300,000 acres are irrigated. While considerable feeding is being done by the farmers using some of the roughage and concentrates from their irrigated places, it is estimated this will be increased a great deal and that 300,000 lambs and 100,000 cattle can be fattened along the Yellowstone river and in other valleys near-by.

Billings Union Stockyards company operates under regulations of the U. S. Packers and Stockyards administration. The firm is affiliated with the Fargo and South St. Paul Union Stockyards companies. At Billings, including those working for commission firms, employment is given to about 50 people.

## IRRIGATION DISTRICT'S COMEBACK

(Continued from page 6)

tapestry, rugs, men's suits and, more recently, men's coats and topcoats have been made of a combination of wool and mohair which provides maximum warmth and is practically rainproof.

Mohair production depends much on the care of the animal. Under normal conditions in western Washington and Oregon, 4.2 pounds average fleece clip may be expected. Prices, like those on other commodities, fluctuate in response to demand.

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