

ISSUED MONTHLY BY THE AGRICULTURAL DEVELOPMENT DEPARTMENT, NORTHERN PACIFIC RAILWAY

VOL. XII

ST. PAUL, MINN., MAY, 1939

No. 10

Many Products Cold-Packed in Pacific Northwest

New products from the Pacific Northwest make their appearance in an accounting of those which are prepared in cold or frozen pack. For example, strawberry juice now gets a heading by itself in the reports of the amount of fruits and vegetables thus packed by the plants operating in Washington and Oregon. In one year 1,850 gallons of strawberry juice were put up in barrels.

Strawberries receive a lot of attention in any report of cold pack products from this area. They are packed in 50-gallon barrels, 30-gallon barrels and in various sizes of tins ranging down from 50 pounds to one pound. In the latter size packages alone nearly a million pounds of strawberries are packed in the Pacific Northwest in a year.

Fruits from the area put into

Letter Came Back

A message to prospective settlers. We want to know when you move. After we have supplied you with literature and direction concerning farm opportunities in the West, we feel that our job is not complete until we know whether you finally have made a satisfactory location. If you move and don't inform us, frequently our letters to you will come back undelivered. This may happen even though you leave a forwarding address at your old post office, since such addresses often prove to be only temporary by the time you finally have found just the place you want. We can serve you better and our efforts will be more direct and effective from our own standpoint if you will advise us as soon as you know what your new address is going to be.

cold pack in addition to strawberries are red raspberries, red raspberry puree, black raspberries, blackberries, youngberries, gooseberries, currants, rhubarb, grapes, prunes, prune pulp, red sour cherries, huckleberries, apricots, dewberries, peaches and Boysenberries. Raspberries and blackberries also run into large volume and are prepared in a variety of kinds and sizes of containers.

The vegetable cold pack roster extends to 14 different items. Among these, peas are the leaders, with 10,982,166 pounds. Green beans reach almost 2,000,000 pounds, as does cut corn. Asparagus comes to about 1,000,000 pounds. Three-quarters of a million pounds of spinach are put up in cold pack and half a million

(Continued on page 2)



A Pacific Northwest fruit cannery. Quality, variety and seasonal advantages have extended to a long list the number of fruits and vegetables put up both in cold pack and canned in this area. Pears, strawberries, prunes, raspberries, blackberries, peas, beans, apples and asparagus are leading kinds.



Published by the
Department of Agricultural Development

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
- W. P. STAPLETON.....Seattle, Wash.
Western Agri. Development Agent
- A. J. DEXTER.....St. Paul, Minn.
Agricultural Development Agent
- A. R. MIESEN.....St. Paul, Minn.
Livestock Development Agent
- L. S. MacDONALD.....Missoula, Mont.
Agricultural Development Agent
- H. W. BYERLY.....St. Paul, Minn.
Immigration 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 J. W. Haw. If you wish to renew on a complimentary basis for five months this may be done by making a written request.

MAY, 1939

**MANY PRODUCTS COLD
PACKED IN PACIFIC
NORTHWEST**

(Continued from page 1)

pounds of squash have been so handled in some years. Other cold pack vegetables listed are Brussels sprouts, wax beans, lima beans, broccoli, cauliflower, corn on the cob, peas and carrots, and carrots alone.

As to canned vegetables, all of those named under the cold pack are included and also there are canned beets, tomatoes, tomato juice and puree, pumpkin and sauerkraut. The canned fruits include in addition to those mentioned in the cold pack list, the following: apples, black cherries, Royal Ann cherries, pears, fruit juices, jams and jellies and plums.

Pears, prunes and apples lead in the canned fruits. In canned vegetables, the tops in volume are canned peas and canned green beans.

In a series of 83 samples of hard red spring wheat grown in North Dakota in 1938, collected from various parts of the state for testing, Thatcher samples showed the highest flour yield and loaf volume of any of the varieties represented.

NORTHWEST'S FESTIVALS

A highlight of interest for Pacific Northwest visitors in the summer, Portland's Rose Festival, June 7, 8, 9 and 10, will offer the most elaborate program in recent years.

Long famous for its elaborate floral parade, the festival is having the added assistance of numerous Oregon and Washington towns this year in an effort to present a spectacle that will eclipse previous celebrated pageants. The number and size of the entries is the largest in festival history.

Grand among the celebrations in honor of Washington's golden anniversary of statehood will be the big, three-day Golden Jubilee in Tacoma, July 20-22.

Each morning a huge military parade with historical floats from each of Washington's 38 counties will be held. Championship golf and tennis matches, salmon fishing derbies, a mammoth air show and other sporting events will help to make the celebration thrilling and enjoyable.

Each evening in Tacoma's famed stadium, overlooking Puget Sound, Mt. Rainier and the wild Olympic Range, will be held a mammoth historical pageant with some 1,500 characters portraying the great and interesting events of pioneer days. In the background, Commencement Bay, will be anchored mighty ships of the United States Navy.



Alfalfa is a common crop on western irrigated projects. It is a good conditioner for new land and is a basic feed for rations in dairy herds that furnish products for near-by populous centers.

CLOSE-UPS

Short Paragraphs About Agriculture in
Northern Pacific Territory

A Nebraskan, P. L. Olmsted, has gone West and located on a farm in southwestern Washington, near Rochester.

A Californian who moved north to western Washington is James Clements. He purchased a little ranch, on which he now is living.

A Montana sugar beet grower, Leon Hendricks, has purchased a new farm. He has been growing beets in the Fromberg territory.

Six northern Minnesota counties last year had 86,085 acres of alfalfa and 98,823 acres of alsike clover. Most of the combined total of these acreages was for seed production.

It is expected the U. S. Forest service will plant 5,901,000 trees in North Dakota this year in addition to 1,782,000 trees scheduled to be put in as replacements among plantings previously made.

Seventy-five carloads of potatoes have been exported from last year's crop of potatoes in Deschutes county, Ore., including such destinations as Hawaiian Islands and Manila. Shipments also have gone to the Panama Canal Zone.

Twenty per cent of the students enrolled in the Goldendale, Wash., public schools are from families that have moved into the community from another state since 1930. Most from this group enrolled in the last three years. A list of their former homes shows 11 states represented.

Harry Schnell, Fargo, N. D., realtor, sold, the first three months of 1939, land totaling 5,600 acres at an average price just a little below \$30 an acre. Schnell says farmers are more anxious now to own land than any time in the 20 years he has been in the real estate business.

Virgil Bahls, 4-H club boy in Richland county, Mont., listened to County Agent Ted Fosse's instructions so well that when Virgil's sow had pigs one chilly morning this spring the boy went to the rescue with warm bricks, which he put into a box with the six newcomers and brought them through hale and hearty.

In northeastern Minnesota, Alfred Lumpio recently paid off the last of the loan on his 40-acre farm. The balance was \$701.63 before he made the payment in February. This Carlton county farmer said the money to retire the loan which he obtained 12 years ago on a 30-year repayment plan came mostly from poultry. He made a considerable saving in interest by repaying far ahead of scheduled date.



WHEELS IRRIGATE CROPS

Built to take advantage of high water on the Yellowstone river, but with plans laid to make possible all-summer use, Harlan Milligan has erected two huge water wheels that provide irrigation water for 100 acres on his farm near Reed Point, Montana.

Milligan's two water wheels, each 42 feet in diameter, are an imposing sight and the amount of water they lift to his irrigation system is no less imposing. Of his 976-acre farm, 450 acres are situated along the Yellowstone river and the site of the water wheels is what Milligan calls a "natural" for that type of installation.

The wheels lift the water 41 feet and although Milligan has not measured the amount of water provided by this system, he knows it is ample for thorough irrigation of 100 acres of alfalfa and wheat.

The water wheel idea is not a new one with Milligan for he has been experimenting with them for the last 20 years. The first of his present pair of big wheels was built in 1924 and was rebuilt last year. The second wheel of the pair was built a year ago. The wheels replace a chain and bucket system that proved unsatisfactory.

As a result of irrigation water provided by his system, a 14-acre field of wheat in 1937 produced a crop of 370 bushels, Milligan said. Eventually he plans to seed all of his irrigated acreage to alfalfa. He also has rigged up an engine-powered pump on the main ditch that will lift water to another ditch for the irrigation of additional acres.

Based on the success of the two wheels he has constructed, Milligan believes that there are many places along the Yellowstone where it would be practical for farmers to take water from the river by means of water wheels.

NEW WINTER FEED

While the by-product from manufacture of sugar from beets, called beet pulp, has been used widely for some years in the West in fattening rations for cattle and sheep, range livestock producers now are beginning to make more use of pulp as a feed for wintering breeding stock. Recently this has



Peas in the Pacific Northwest fill a threefold purpose. They go to market fresh in seasons when supplies from other major producing areas are light and large volumes of the crop are canned and frozen.

been done by feeding dried molasses beet pulp. A significant feature has been the use of dried molasses beet pulp with steamed bone meal. One feed used successfully by some of the sheepmen consists of 82 per cent dried molasses beet pulp, 15 per cent high protein feeders' molasses and 3 per cent steamed bone meal. During the past season one large range sheep operator used more than 600 tons of such a feed following his trial of a 75-ton lot the previous year. The success with this feed, along with experimental data published by Montana State college on winter rations for range cattle, gives emphasis to the opinion that phosphorus is a very important element in nourishing breeding stock.

Brome grass, crested wheat grass, slender wheat grass, sweet clover and alfalfa offer the most promise as pasture and hay in North Dakota.

MONTANA MILK FACTORY

In the Bitter Root valley, western Montana, Clyde Wood has an 85-cow herd that is managed for milk production pretty much like a mass production manufacturing plant. A new barn 250 feet long by 40 feet wide now houses the entire dairy production unit.

The herd is made up of 85 fine Jersey cows, selected from a famous Oregon herd. Each one is registered with the American Jer-

sey Cattle club. The health of the herd is constantly guarded, with Dr. J. W. Kilpatrick, deputy state veterinarian, making regular inspections. Each cow is tested regularly for Bang's disease and tuberculosis.

Special attention has been given to the diet of the herd to assure a milk rich in vitamin content and minerals. In addition to the green alfalfa hay that forms the greater part of their feed, each cow is given a daily ration of specially prepared dairy feed, scientifically balanced to provide everything that is needed to produce good milk.

LAMBS KILL WEED

At the North Dakota Agricultural college it was found that lambs made acceptable gains and ewes remained in reasonably good condition while pastured on fields containing a high percentage of leafy spurge. Furthermore, pasturing heavy stands of leafy spurge successive years killed out the weed so that there was only infrequent occurrence of it in fields of row crops planted later.

GAS PRESERVES FRUIT

Minnesota fruit growers are using carbon dioxide, the gas that makes bubbles in soda pop, to retain the freshness and quality of their berries, currants, plums and other products. They give the fruit a gas treatment right after picking and it stays fresh much longer.



Agriculture in the Western States Will Expand

Increasing Population, Food Needs of the Country and the Industrial Situation Influence Future of This Area

For those who inquire about the future of agriculture in the western states, the probable need for farmers and their place 10, 15 or more years hence in that large area between the Rocky mountains and the Pacific ocean, certain facts both of national and regional significance are of interest. From these it becomes evident that population changes, geographic limitations, the industrial situation and the food needs of the West as well as the country as a whole indicate in years to come an expanding agriculture beyond the continental divide.

The most recent and reliable estimates indicate a population in continental United States of 131 million in 1940, 139 million in 1950 and 141 million in 1960, after which it is now believed our population will remain stationary or decline slightly. If these figures are correct, on the basis of a moderate cost, adequate diet, the necessary harvested crop area must be increased from 270 million acres in 1935 to 286 million in 1940; in 1950 to 301 million acres, and in 1960 to 310 million acres. In other words, to supply the domestic market 20 to 25 years hence will require 40 million additional cropped acres. What appear to be minor discrepancies in figures of prospective crop land needs arise from variations in estimates of diets in the future. The above figures on crop acreage requirements represent the closest approximation of what will probably take place in the next 25 years in food demands. All too often of late, estimates of domestic needs for food and fibre are based upon calculations made during the recent period of grave economic distress, widespread unemployment and sharply curtailed standards of living of a large proportion of our population. This is unsound if we believe normal conditions will be restored in the not distant future.

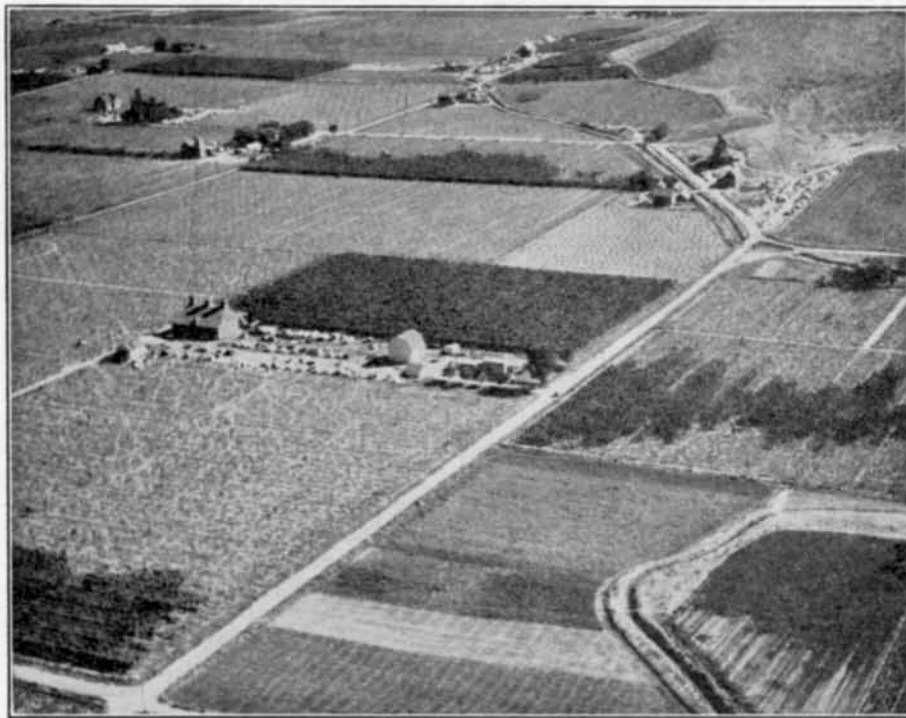
The West is bound to share in

the population growth of this nation. There are reasons to believe its rate of population growth will continue to outstrip other sections of the country. Its rate of growth from 1920 to 1930 was more than double the rate for the nation as a whole. Not only will there be a natural growth by reason of excess of births over deaths, but it is a mecca of migration of young, ambitious people from other sections of the country, notably the Great Plains and the Middlewest. The mild and otherwise attractive climate of the West, particularly the coast country, the opportunities for recreation, cheap fuel, access to a fresh fruit and vegetable diet, flowers and grass the greater part of the year, all hold great allure for a race which is insecurely attached to the old homestead.

Furthermore, in the next 25

years a steadily increasing number of middle-aged people will come into possession of life insurance annuities and various types of social security and old age pensions. Upon such people the West Coast country will exert a strong pull. Townsend plan or no Townsend plan, there is sound reason to believe that in the future of migration alone the western states are to have substantial additions to their populations of people past middle age, semi-invalids and those seeking a location amid comfortable, satisfactory living conditions. Regionally, the West is particularly to have an increasingly pressing problem in feeding and clothing its own people.

Future land use in these states is not complete without some discussion of the farm population shifts which apparently will be



Well-developed farms in the West are a backlog of security and stability near at home for the Pacific Coast and intermountain areas. They are a source of near-by food necessities, a bulwark for industry and they furnish high quality, specialty products for consumers in other parts of the country. This is an air view of irrigated farms, highways and irrigation canals in the Yakima valley, Washington.



The range livestock industry of the western states, which furnishes 55 per cent of the nation's sheep and lambs, 33 per cent of our cattle and 75 per cent of our wool and mohair, leans heavily on adjacent farming enterprise for its winter rations and its important feed reserves.

made necessary because of the unwise direction of settlement in the homestead period and consequent overdevelopment of the Great Plains. This situation was aggravated by the extension of crop area under the stimulus of high wheat prices during World War years. While there is wide difference of opinion on what ultimately is to be the highest use of the semi-arid lands which lie between the foothills of the main range of the continental divide and the 100th meridian, many of us are far from willing to "quitclaim" this area to the Indians. Regionally it would be a tragedy and nationally it would create an economic and political sore. Gradually there will take place a readjustment in this area. Briefly, it can be shown that a fair estimate places at 100,000 the total number of farm families in the Great Plains who will be unsettled by such readjustment. Some of these have already relocated. Others will follow for the next 10 to 15 years. Certainly the generation reaching maturity must go elsewhere for a farm livelihood.

Where do farm opportunities exist for these dislocated Great Plains drouth veterans and the new generation? If they do not

exist in present safe and tried farm communities, where can opportunities for them be created with the greatest future benefit to the nation and with the least disruption to established agriculture? Neither the Middlewest, the South nor the East presents attractive opportunities for an audacious prairie pioneer of limited means but unlimited ambition. Therefore, such people are looking to the possibilities in the great undeveloped farm resources of the West, on irrigation projects now under construction, on the cutover lands of the intermountain and coast regions, and the drainage districts in the near sea level areas in the extreme west coast.

Regional Needs

Between 1920 and 1930 the population of the eleven western states increased 33.6 per cent, from 8,902,972 to 11,896,222, or approximately 3,000,000. Further growth is recorded in the West between 1930 and 1935. There were almost 5,000,000 more mouths to feed in 1935 than in 1930 in the nation as a whole. The West has shared in continued population growth, particularly since 1934, and, while no data broken down for states are

yet available, as a minimum it may be assumed that its population has increased between 500,000 and 750,000 in the past five years. By 1950, there will be many more people in the western states than today. Such a flow of population is making it more and more important that the latent farm resources of the area be developed. The crop acreage for producing food in this country for domestic consumption has varied from 2.5 acres to 2.3 acres per person since 1918. This would mean an increase in the western states to keep step with the population of between 1,200,000 and 1,800,000 cropped acres the past five years.

Increased farm production programs initiated in many nations since the World War make us appreciate better now than in the past that the desirability of reasonable self-support as to agricultural commodities applies equally to a large and remote region as to a nation. The growing West, situated as it is, with the 1,000-mile Great Plains barrier between it and the humid Middlewest and East, will continue to supply eastern markets with such products of its irrigated lands as cannot be produced seasonably, at low cost, or of high



An equable climate, room to expand and establish a home, ample rainfall, green grass and flowers and a wide variety of crop opportunities attract homeseekers to the western states. This is a farm home in the Pacific Northwest.

quality in the eastern rainfall areas. And it will continue to receive from the humid sections staple food products needed because of consumptive demand beyond its ability to produce them, yet the West fairly urges that its land and water resources be reasonably developed in order to provide near at hand some of the bulky staples required and some reserve against the increasing need for the bulky food staples which the East furnishes.

Industry's Place

There is another important reason why agriculture on an expanded basis is necessary in the western states in the future. This territory has enjoyed its growth, to a large extent, through turning into cash a wonderful heritage of minerals, timber and petroleum. Such industries are depletion industries and although they are far from exhausted—the cream has been skimmed—they are now quite definitely on the wane. While the mines, oil wells, fisheries and lumber mills, properly managed, and with careful conservation of what is left of nature's heritage, will provide new wealth and employment for some time to come, it is inconceivable that these industries can absorb several millions more people. If not, what are these people going to do? To be true, the West has a great resource in its climate and although people of comfortable means will come as they have in the past for that reason alone, still the great bulk of future increase in population will

Population

The 11 western states increased in population 33.6 per cent between 1920 and 1930, or approximately 3,000,000 people. Further growth in the West is recorded since 1930. As a minimum, it may be assumed that in the last five years the population of this area has increased from 500,000 to 750,000, although no data for recent years is available. By 1950 there will be many more people in the western states than today. Such a flow of population is making it more and more important that latent farm resources of the area be developed.

have to work at something, since enjoying the climate is not a livelihood.

Will manufacturing and allied industries alone provide employment for population growth? There are many advantages enjoyed by the manufacturing plant or industry located in this area—one might almost say every advantage—except a market. But this matter of markets is a rather important consideration. We have previously spoken of the continental divide as an economic barrier and so it has been found to be for most manufactured products except those which are consumed in the West or which are constructed out of raw materials the West alone can produce. The underlying basis for a western industrial expansion is, in the last analysis, found in agriculture. Agriculture is the only foun-

dation upon which a balanced civilization can be built. Without its expansion there is less chance for expansion of local markets for the products of industry.

The Livestock Picture

There is still another important consideration—the question of maintaining an adequate supply of wool, lambs and beef animals for the steadily increasing population not only of the West but of the country as a whole. About half of our wool requirements are imported. We are now importing millions of dollars worth of beef and veal products. In the 1935-36 fiscal year we exported 32,118,000 pounds of beef and beef products, but in the same period we imported 94,579,000 pounds of beef and veal and 421,000 head of cattle. Compare such a situation with 30 to 35 years ago. In 1906 United States exported 584,239 live cattle and 732,884,572 pounds of beef and beef products, including oils and fats. The imports were 29,000 head of cattle and almost no beef. The question may well be asked where beef, veal and wool requirements for this nation will come from in 1950 with millions more customers.

It is in the range areas of the western states that a large portion of these products have previously originated—55% of our sheep and lambs, 33% of our cattle and 75% of our wool and mohair—but if livestock is to be increased out there, area of land cropped must be expanded, since the limiting factor in connection with complete

(Continued on page 8)



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-74.2—80 acres, cutover land, 7 miles from Northome, in Koochiching county, northern Minnesota, 1 mile from main highway. Land lies level to rolling, can be easily cleared. Good soil with clay subsoil, some timber, lots of fuel wood. Price only \$300. \$150 cash, balance \$50 per year, 5 per cent interest.

M-111.4—Improved farm of 280 acres, 5½ miles from Frazee, on state highway, west central Minnesota, various route services, 1 mile from rural electrification line to be built this summer. 85 acres cultivated, 28 acres in meadows, good productive soil. Two-story, eight-room dwelling, good barn, hen house, also granary and hen house combined, well water. Place is nearly all fenced, lots of woven wire. Price \$12.50 per acre. About one-fourth cash, balance on terms to suit purchaser.

M-111.5—160 acres, 4½ miles from Blackduck, ¼ mile off good county road, 20 acres cleared and cultivated, balance is second growth spruce and cedar. Clay loam with clay subsoil; on good road and school bus to Blackduck. Can be made into a good farm and is well located. Sell for \$800. \$400 down payment, balance terms, 5 per cent interest. In Beltrami county, northern Minnesota.

M-64.9—158½ acres with 5 acres cleared and cultivated, balance easily cleared. Spring on place and spring-fed creek crosses two forties, on two highways, 6 miles from Littlefork, in Koochiching county, northern Minnesota. Considerable poplar, birch, balsam and ash timber on place, black loam with clay subsoil, no swamp. No buildings. Price \$10 per acre. Terms: \$600 cash, balance easy terms.

NORTH DAKOTA

N-41.6—160 acres, 4 miles to Armour packing plant and West Fargo, 1 mile to school, in Red River valley, eastern North Dakota. Nice set of buildings in good repair, fine water, best of Red River valley soil. Price \$35 per acre.

MONTANA

S-185—Low-priced stock and dairy ranch with good opportunity for further development and corresponding increase in value. Consists of 1,120

acres of deeded land, good barn, house and well. About 70 acres irrigated and sub-irrigated bottom land now in hay and grain, balance is cutover pasture, well watered by two running creeks. Free water rights for irrigation from creeks, and additional land can be irrigated, increasing hay production. Lots of timber for fuel, posts and poles. Considerable privately owned and forest reserve land in immediate vicinity where additional summer grazing could be had. Graded county road runs through ranch with daily mail and school bus. Located about 6 miles from railroad, in western Montana. Only \$6 per acre with half cash, terms on balance.

S-70.8—160 acres, 2½ miles from Perma, in Sanders county, on main line of Northern Pacific Railway, western Montana. Excellent house, good root cellar and other adequate buildings. Sandy loam soil, about 90 acres tillable, balance in pasture and timber, nice small orchard, irrigated by fine springs near house. Ideal location and sheltered. A good dairy and turkey farm for only \$2,500. Will consider renting.

S-70.9—236 acres, in Bitter Root valley, western Montana, 4½ miles east of Victor. 150 acres irrigable and in alfalfa. Land is watered by Bitter Root Irrigation district and would make exceptionally good layout for stock. No buildings except small house, 14x20, built four years ago; phone and electric service available, 2 miles from school. School bus service available. Soil and locality are especially adapted to alfalfa seed. Place suitable for dividing into two to four small irrigated farms. If operated as one unit, additional adjacent range may be leased. Priced for quick sale at \$30 per acre. Half cash, balance in 5 years.

IDAHO

I-30.1—72 acres with 8 acres cleared, nearly all level land. New four-room house and root cellar. On good road, close to main highway, 7 miles from Sandpoint, in Bonner county, northern Idaho. \$1,500 with one-third down.

I-72.5—160 acres, one-fourth mile from main highway, on county road, 8 miles from town, in northern Idaho, about 30 acres cleared. Old buildings in need of repair. To settle estate will sell for \$1,200 with \$600 down.

WASHINGTON

W-203.5—80 acres with small house and barn, some cleared land, plenty of timber suitable for cordwood, running water. Price \$1,500. \$500 cash, balance terms to suit. Located in vicinity of Battle Ground, in Clarke county, southwestern Washington.

W-31.7—17 acres, fertile soil, good level land, 8 acres cultivated, the balance is pasture with some stumps and brush. Place is all fenced, has family orchard, well and a stream that runs part of the year. Six-room house, good barn, chicken houses, root house and other buildings. Located on a good county road, close to town and school, in Chehalis district, southwestern Washington. Has electricity. For quick sale, this place offered for \$1,400. Only \$200 down payment, balance terms.

W-203.6—In northwestern Washington, about 20 miles from Bellingham—100 acres, partly cleared, four-room house, barn, 20x40; family orchard, water piped into buildings, chicken house, 20x60; plenty wood on the property. Price \$3,800. \$900 cash will handle.

W-112.7—40 acres with 25 acres cultivated, ample wood timber for home use, part of cultivated land seeded to clover. Six-room house, barn, 40x60; work shop, chicken house, bearing orchard, good productive soil, various route services, high school bus, electricity and phone. In well settled community on main highway, ¾ mile to store and public school, 10 miles from good town and tributary to Vancouver, in southwestern Washington. Includes 4 cows, horse, chickens, wagon, plow, harrow, hay and crops. Price \$2,850. \$1,000 cash, balance is Federal farm loan. Taxes, \$25.52 per year.

OREGON

O-103.2—Nice 50-acre farm, 7 miles from Lebanon, in Linn county, western Oregon, on gravel road, 1 mile to school. Six-room house, hot and cold water, bath. Good barn, also fair barn, machine shed, garage, chicken house, good fences, fruit for family use, good water. Can be bought for \$4,000. \$1,000 down payment, balance terms, 5 per cent interest.

O-131.9—Located 4 miles from Salem, in western Oregon, schoolhouse near by, 103 acres, fair six-room house, barn, woodshed, garage, machine shed, electricity. About 10 acres in young gooseberries, 70 acres open field and cultivated, 21 acres pasture. Price \$7,500; terms.



AGRICULTURE IN THE WESTERN STATES WILL EXPAND

(Continued from page 6)

utilization of range areas is late fall and early spring pasture and available feed for wintering. Alfalfa hay, beet tops, pulp and molasses, together with barley and oats, constitute such feed for wintering. In the livestock business the West is complementary to, not competitive with, the Middlewest. If such relationship were disturbed, both areas would suffer.

MONTANA HENS PROFITABLE

That poultry brings profit to Harry Droge, Gallatin county, Montana, is shown in his story which was told as follows in a recent issue of The Montana Farmer:

"We have been raising chickens for years, but only the last four or five years have they been an asset to us. We started buying mixed Leghorn chicks, but have bought sexed chicks for the last three years and like them better. We get a more even bunch of pullets than we did in buying mixed chicks.

"We start buying the best we know of sometime in April and usually have them starting to lay in September. We dispose of our old hens some time in September and give the henhouse a good cleaning and whitewashing. We try to have our new pullets in by the first of October. Our records show that by that time we get from one-third to one-half of them laying, and before the first of November they are in full production which is around 70 per cent.

"We found that the time to make hens pay is before New Years. Usually after that time the egg prices go down. After they are in the henhouse, they don't come outside until we get rid of them the next year. We used to have lights for them mornings and evenings, but since we got electricity we don't have light in the evening. The lights go on automatically in the morning around four, and that saves us a lot of trouble evenings.

"We feed them a commercial laying mash in feeders and have whole oats in hoppers at all times. We feed them wheat first thing in the morning and last in evening.

State Offers Land

From Beltrami county, Minn., one of the realtors writes that the state has good unimproved lands that are for sale at \$10 an acre, with 15 per cent down, and a reasonable interest, with 40 years to pay the balance of 85 per cent if desired. He further states that much of the moisture this spring has gone into the ground as the snow melted, that the spring moisture situation apparently is being taken care of. He advises that the alfalfa in that area has come through the winter in good condition.

Give them all the skim milk (if we have it) that they will drink before noon, and afternoon, water. Clean roosts every day and litter in coop once a week. For greens, we raise a few rows of mangels in our gardens, and give them one or two per day. Last year, our hens made us around \$1.80 per hen after all expenses were paid. We have around 200 of them."

TOP DAIRY PRODUCTION

Results sustained year after year, no tailenders on the farm and a broad and solid foundation on which to keep the herd clicking in the future—these things are evidence of the four-point management policy at the Frank B. Astroth farm in central Minnesota. For the past 12 years the production of every cow on the place has been tested on a yearly basis. The herd has run from 22 to 38 cows in milk each year during that time and the average milk and butterfat production per cow has gone up from 6,373 pounds and 344 pounds, respectively, in 1926 to 9,854 and 522 in 1937. In only one year was there a drop in butterfat, which was accounted for entirely by the feed conditions brought about by uncommon drouth.

Fourteen years ago when Frank Astroth, then a young field representative for a dairy breed association, took a leap into some real farming by buying the 160 acres which is the home today of his herd, he had four or five heifers parked around among his friends

who had a place to keep them. Frank knew he was going to build a herd and he wanted to follow somewhat a middle course—not veer into the spectacular either as to butterfat records or from the standpoint of type in the individuals, but get a sound and consistent bunch of cows which at the same time were not hard to look at. He has never made a big point out of exhibiting at the fairs, just gets his finger into the show ring pie part way and has come out with a few fruits of the judging which are creditable and gratifying if of no high importance in particular.

It makes 160 acres hump to produce feed for 70 to 80 head of cows, heifers and calves. Rotation with alfalfa, clovers, hybrid corn and grain has long since been a matter of course. When erosion pops up any place, it gets a grass treatment. There is a permanent pasture and in addition three Sudan grass pastures on which the milk cows rotate.

The Montana Extension service last year helped farmers plan 93 private pumping plants to bring water out of streams for irrigation of their farms. These projects watered a total of about 2,500 acres. Many other types of irrigation project work were sponsored with advice of the Extension service last year also.

Still another new spring wheat of interest to Minnesota, North Dakota and Montana farmers in particular has been announced. It comes from Canada and is called Regent, a cross of H-44 and Reward. It is similar in appearance to Thatcher and Renown. Experimental data from Canada indicate Regent has considerable promise in rust resistance and as a producer of quality flour.

SPECIAL RATES ACCOMMODATE HOMESEEEKERS

Reduced rates are on sale daily to all points on the Northern Pacific Railway. One-way and round-trip season and special limit tickets. Let us quote rates from your station and assist you in planning your trip of inspection.

J. W. HAW, 115 Northern Pacific Ry. St. Paul, Minn.