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## Where the Settlers Buy New Farms

Undeveloped agricultural lands are a magnet drawing population into many of the newer farming areas, it is shown by comparative figures in reports on the 1940 federal census. Western Washington, central Washington, Oregon's Willamette valley, northern Idaho, northern Minnesota and western Montana all made percentage increases in population greater than the average.

Farm homes on cutover lands were the principal objective of newcomers in Washington west of the Cascade mountains where Cowlitz county gained 7,500 inhabitants, or 23 per cent, and Clark county increased 8,000, or 20 per cent between 1930 and 1940. Other increases in this state west of the Cascades included 44.2 per cent in Kitsap county; 17.7 per cent in Thurston county; 15.4 per cent for Mason county; 59.8 per cent in Skamania; 12.3 per cent in Island county; and 12.1 per cent for Snohomish county. King and Skagit counties showed increases of

8.5 and 6.7 per cent, respectively. The irrigated valleys of the Yakima district in Washington made notable gains, with Yakima county leading by a wide margin. There are 21,184 more people in Yakima county now than in 1930,

making an increase of 27.4 per cent. Kittitas county upped its population nearly 2,000, or 10.7 per cent, and Benton county gained over 1,000, or 9.5 per cent.

In the Willamette valley of Oregon most of the county increases in population between 1930 and 1940 ranged between 12 and 29 per cent. Top county in numbers was Marion, where there are 14,587 more residents than 10 years ago. In the central part of the state Deschutes county gained nearly 4,000 or 26 per cent and Clatsop county, on the coast, increased 14.8 per cent.

In northern Idaho, Bonner county went up 19 per cent in population, about 2,500 people, and Kootenai county gained 2,750, which amounted to 14 per cent gain. Montana's Yellowstone county gained more than 10,000, with 33.5 per cent, and Missoula county was another at the top in gains, with 6,579, or 30.2 per cent more residents. Ravalli county, the Bitter

(Continued on page 2)



Christmas, 1940, will find many families observing the holiday season in surroundings new to them in Northwest states. The trek of settlers west and north seeking homes in Minnesota, the Red River valley, in Montana's irrigated sections, northern Idaho, Washington and Oregon, has continued through the past year. Many such families have found their hopes fulfilled in new opportunity and a satisfactory location.



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NORTHERN PACIFIC RAILWAY

"First of the Northern Transcontinentals"

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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.

DECEMBER, 1940

WHERE THE SETTLERS BUY NEW FARMS

(Continued from page 1)

Root valley, went up 25 per cent. Some of the others in Montana making 12 to 15 per cent gains were Gallatin and Madison counties.

Beltrami county, Minnesota, has 5,346 more population than in 1930. This is an increase of nearly 26 per cent. Koochiching county with 16,885 people today, has 2,807, or 19.9 per cent, more than 10 years ago. Cass county, Minnesota, increased 28.7 per cent; Crow Wing increased 17.6 per cent. Others in the northern part of the state going up 14 to 21 per cent are Aitkin, Anoka, Becker, Carlton, Hubbard, Itasca and Wadena counties. Clay county made a 9.6 per cent increase, with 2,209 more people now than in 1930.

BEST HONEY CROP

North Dakota beekeepers average well over 100 pounds of honey per colony of bees, says J. A. Munro, secretary of the beekeepers' association in that state. The national average is less than 50 pounds and North Dakota has the highest state average, Munro says.

The bee industry in North Dakota has expanded from approximately 700 hives in 1920 to 20,000 at the present time. That means 2,000,000 pounds of honey produced annually.

North Dakota honey ranks high in quality. Made mostly from sweet clover bloom, it is mild and quite uniform in flavor, heavy-bodied, light in color. It commands comparatively high prices. Experiments on wintering of bees conducted at North Dakota Agricultural college by Munro have saved beekeepers from large losses. The home economics division at the college is experimenting with new methods of using honey in cookery.

SEED DEMAND HIGHER

War has upped demand for vegetable seeds grown in the Pacific Northwest, according to agricultural statisticians for the state of Washington, who state there is a very definite need for vegetable seed and sugar beet seed for Canada and that there is some increase in English demand. Cabbage, turnips, beets, mangoes and rutabagas are important western Washington seed crops. Much of the seed is raised in the Skagit valley.

Red Warba potato, a new, bright red, mosaic-resistant, good yielding variety, may replace Triumph, Minnesotans say.

BABY BEEF SHOW

At the North Dakota district 4-H club show in Bismarck, state capital, 24 baby beeves were exhibited, including 10 Angus, nine Herefords and five Shorthorns. Judges were impressed by the high quality of animals exhibited.

CLOSE-UPS

Short Paragraphs About Agriculture in Northern Pacific Territory

George H. Nesemeier, Cass county, North Dakota, dug a new well the past fall and got lots of water at 95 feet. Before that Nesemeier used his old 50-foot well but on a big farm with lots of livestock he needed another one to supplement it.

F. M. Rothrock, long-time stockman and Shorthorn breeder in eastern Washington was honored Dec. 2 when his friends presented an oil portrait of him to the Saddle & Sirloin club in Chicago and gave a dinner on the occasion of the portrait being hung in rooms of the club alongside pictures of many another famed U. S. husbandryman. Mr. Rothrock now operates the Old Union Stockyards at Spokane.

Mike Seber, from the north shore country along Lake Superior, bought 40 acres in western Washington, near Winlock, for \$1,500. Seber paid \$500 down and has seven years to pay the balance.

In Bonner county, northern Idaho, Matt Schmidt grew 58 bushels per acre of Mosida wheat where the previous year second cutting medium red clover had been plowed under.

Lawrence Roden built a new cattle shed on his Cass county, North Dakota, farm last fall. It was built for bad weather shelter but the doors are never closed. The idea is to keep stock out of storms but not have a warm shed.

In northern Idaho Frank and Stanley Rusho got an oat yield of 85 bushels an acre on land that had a green manure crop plowed under the previous season.

W. L. Muncey had seven acres of mint growing on his 15-acre farm at Richland, central Washington, this year and got 72 pounds of mint oil per acre. The oil grossed \$1,000 and on the remainder of his ranch he took in \$600. Muncey ran an oil distillery last fall, recovering 3,200 pounds of oil from his own crop and that of mint-growing neighbors.

From Oklahoma to western Washington is the move Ray Underwood made. He has rented an 80-acre farm north of Seattle.

J. N. Smith, a former Nebraskan, now lives in northwestern Washington, near Sedro Woolley.

George Roland's new farm home is near Vernonia, in northwestern Oregon. He used to live in Nebraska.



# Beet Crop Means Sugar, Wages and Livestock Feed

No other Northwest crop distributes its benefits more widely than sugar beets do. Some of those occupied a part or all of the year are the field and factory workers, farmers, machinery makers and distributors, sugar manufacturers, the gas station operator, wholesalers, the retailer, the coal man, the lime rock man, the railroad man and the truck driver. Fall scenes on Northwest beet-growing farms are shown here. 1. First operation in the beet harvest—the tractor roars through the field hitched to an implement that loosens the soil, lifts beets so toppers can pull them out easily. 2. Fourteen tons per acre being topped, piled and loaded on Albert Sinner's farm in North Dakota ready to be hauled to the railroad. 3. Beet dump at Dalrymple Spur on the Northern Pacific in eastern North Dakota elevates and deposits the crop in the gondola for its trip to the sugar factory. 4. Leafy, green tops piled to cure in a Bitter Root valley, western Montana, field after the beets have gone. 5. Tops are hauled in and "silosed" in this sort of stack, ready to be fed to cows or sheep. Both classes of stock relish this kind of feed and do well on it.



## Dairy Herds Chief Farm Income Source

In Bonner county, northern Idaho, a cutover section, about three-fourths of the farm land produces hay crops which are used for dairy herds, sheep and beef cattle. Potatoes are the chief cash crop, with Nettet Gems, Katahdins and Bliss Triumphs the main varieties. Some acreage is used for grains, small fruits and vegetables. Hardy fruits, such as apples, pears, cherries and prunes are raised. Grass seed production has recently been introduced. Largest source of income to Bonner county farmers is dairy products.

Farms average 130 to 160 acres, but the average amount of cleared land up until the last year was about 32 acres per farm. More land is being cleared and with continuation of such a program much more of the feed required for livestock is being grown within the county than formerly.

Bonner county soil types are numerous and varied. They result



A winter scene on C. W. Gresham's farm in Bonner county, Idaho, as he turns his purebred ewes out for exercise. This flock, developed over the past 15 years, carries the blood of some of America's foremost Hampshire sires, making it an outstanding reservoir of breeding stock for the Pacific Northwest.



R. G. Prichard grew this grain on his northern Idaho farm near Sagle. It was planted on bottom land late in the fall.



Oliver Ruen, Clarksfork, northern Idaho, exhibits a hill of certified Nettet Gem seed potatoes selected for yield, type and uniformity and grown on peat soil along the Clarksfork river. Ruen's Nettet Gems are reported to be the best seed stock in Idaho. He has built up quality by years of careful selection, roguing and testing. Ruen grew 4,000 sacks of seed on 29 acres—230 bushels per acre on non-irrigated land.

largely from glacial action and represent 76 different types or subtypes. A great deal of work has been done at the state's experiment station near Sandpoint on soil problems and recommendations now can be made to farmers in different parts of the county. In general the upland mineral soils are usually best handled by keeping them in a good state of fertility by use of legumes and plowing under green manure crops. Application of 200 pounds per acre of gypsum is required on most of these mineral types before seeding legumes. Along the streams and lakes there are peat soils, usually

high in nitrogen but low in phosphate and potash. This is corrected for some crops by using a 2-20-20 commercial fertilizer. A soil map at the county agent's office is available for study by anyone interested.

In Bonner county the average time between killing frosts is about 117 days and the average annual precipitation is 28 inches. In 1938, the growing season, or period between killing frosts of spring and fall, went up to 168 days, the longest on record. In 1939 it was 146 days; in 1937, a comparatively short season, 110 days; and in

(Continued on page 6)



## Cows Thriving in Cold Climate

Cows apparently are not thin-skinned as concerns cold weather and in the northern states' low winter temperatures they do not require coddling in snug, warm barns or shelter to the extent that many stockmen have thought was necessary. This is a conclusion indicated from experience between 1932 and 1938 at the North Dakota Agricultural college where a closely supervised project, recently reported on, was conducted to determine whether cows really are as delicate as supposed.

The study is of particular interest as concerns dairying in the northern states. North Dakota dairy specialists have concluded that if cows ordinarily well nourished have shelter from wind, snow or rain and have a dry place to bed down, they can withstand exposure to cold temperature; that they will produce practically as well in a cold barn as in a warm stable or one in which it is 50 degrees Fahrenheit; and that, housed in a cold building, their feed requirements for milk and butterfat production comparable with that of cows kept where it is warm are no greater and, on the contrary, probably will be somewhat less. Here and there practical dairymen have reported good results housing cows in winter loose in sheds opening onto yards in which hay was fed.

An explanation lies in the fact, carefully determined in different experimental trials, that a cow on full feed produces considerable energy evolved as heat in excess of that required to maintain body temperature and that this excess is sufficient so that production of further energy is not demanded in comparatively cold weather for the sake of generating body heat.

The North Dakota experiment compared performance of cows kept in the dairy barn with that of a similar group kept night and day loose in a well built shed having large doors kept open onto an adjoining yard where alfalfa hay was fed in a rack. The latter group was taken to the barn and stanchioned for milkings, at which times they were fed grain and silage. Tests

were conducted from October to March, inclusive. Producing ability, stage of lactation, size and breed of cows were considered in making up the groups and adjustments were made to counterbalance any inevitable differences. Mean temperature over the entire test was 50.64 degrees Fahrenheit in the barn and 29.39 in the shed, with monthly means in the shed as low as nine degrees Fahrenheit and numerous periods below zero. Average prevailing humidity was 11 points lower for the shed group than for those in the barn.

It is significant that production of four per cent milk ran consistently about the same for both groups, with a slight edge in favor of the shed cows for the entire period. The shed cows continually gained more weight than those in the barn and finished with a decided weight advantage. The shed cows used less feed all the way through, required a fraction of a pound less protein per 100 pounds of milk and 3.4 pounds less total digestible nutrients for 100 pounds of four per cent milk produced. There were no cases of pneumonia. Shed cows didn't suffer frosted teats as much as was anticipated and where this occurred it was mostly from wading through deep snow going to and coming from milking in the barn.

The college suggests that where a shed is used, a well built, sanitary and warm milking room, with two or four stanchions, adjacent to the shed be provided for convenience and for the milker's comfort.

### 110,000-ACRE RANCH

The 110,000-acre holdings of the Jake Harder family in eastern Washington comprise one of America's biggest ranches. Large portion of the property is used for livestock. A model of the holdings was exhibited at the last San Francisco exposition.

V. J. Mannila is building a sawmill at Littlefork, in northern Minnesota. The mill will be in operation about the first of the year.



"We need more sugar beets, corn and livestock in this area," Floyd Cronquist, Grand Forks county, North Dakota, commented, when we snapped his picture along the highway that borders his 70-acre beet field.

## Beets

### North Dakotan Raises 70 Acres for Sugar Factory

Sugar beets have been a cash crop for Floyd Cronquist every year for the last 16 years in Grand Forks county, North Dakota. Farming six quarter sections, he grows 70 acres of beets and in ordinary years makes 10 tons to the acre. The lowest yield he ever got was six tons.

Cronquist grows beets on a deep, silt loam soil that retains moisture well. He usually has rotated in this way—two years of grain, one year of fallow, potatoes and then beets. Every year he hauls out 1,000 loads of manure to spread on the "home" section, applying 10 loads per acre, so each part of this land gets an application about every sixth spring. Usually the application is made on the fallow. In addition to this fertilizing program, Cronquist applies phosphate each season to the field that is growing beets.

"This country is coming to corn and livestock," Cronquist says. "I raise 40 acres of corn, but it should be more—at least 100 acres. Beets fit into a corn and livestock program. They are a dependable cash crop. In addition, their cultivation helps a great deal in keeping land productive and free of weeds. The beet tops are the real thing for cattle. Last fall I bought young stuff weighing just under 300 pounds. These were put on pasture and then wintered on beet tops, corn fodder and silage. They did well and gained all winter. I put the tops into small piles in the field during the fall, where they dried out and cured.



## No Paradise for Speculators

There's no reason to hurry! Before you buy, investigate! These are the warnings summarily announced from Washington, D. C., by Commissioner John C. Page of the Bureau of Reclamation in response to a rising tide of inquiry from hundreds who think it would be a good thing to get in on the ground floor with purchase of land in the Columbia Basin in the state of Washington.

Protected by federal law against unjustifiably high prices and padded values, the Columbia Basin is no speculator's paradise. Still years away from the time when even a small portion will be watered, the Basin land presents no legitimate reasons for stampede by land hungry prospective settlers.

"I wish I could get word to everybody," Commissioner Page said, "that the land to be irrigated by the Columbia Basin project is being appraised impartially by the government and that these appraisals will be made available free to those who inquire. Anyone who is approached by an agent or landowner seeking to sell land within or near the Basin area on the strength of the fact that the land may eventually be irrigated by the government project, would be acting wisely to get in touch immediately with the Bureau of Reclamation at Coulee D a m, Wash., or at Washington, D. C., to determine whether the land in question actually is within the project area, whether it has been classified and appraised by the government and, if so, when the appraisal indicating its value will be available."

### Realtors' Rights

Commissioner Page stated that no real estate agent has any right to pretend that he represents the government in connection with the sale of lands within the Columbia Basin irrigation project, adding that the Bureau has no land to sell for farming purposes in the area and that no other agency of the federal government has any to sell.

The land to be irrigated from Grand Coulee dam is owned chiefly by individuals, corporations, coun-

### EXCHANGE

From southern California comes word that Lyle C. Ehrhard wants to move to Minnesota and buy a farm. Reared in south central Minnesota, Ehrhard went to California and now is employed in a factory. Next summer he expects to make a trip to look at quarter-section farms in Wadena and Ottertail counties, Minnesota. Ehrhard wants good buildings, 60 to 80 acres in cultivation, and the balance in timber. He will sell his California urban home or will trade it for Minnesota land.

ties and the state of Washington. Although prospective settlers must buy their land from such owners, or from such agencies as may be established later to acquire lands for resale as development progresses, settlers may be protected from speculative land prices by the Anti-Speculation Act, passed by both the federal and state governments and designed to protect against speculative prices and to provide opportunities for many farm homes by limiting land ownership to specified maximum areas. Each prospective buyer should familiarize himself with the provisions of the Anti-Speculation Act.

### Water in 1944

Some of the reports of activities of land agents indicate they allege that water will be delivered in 1943 on the project and that no charges for water will be assessed the first six years. Commissioner Page stated that although Grand Coulee dam is nearing completion, the irrigation system must be constructed before water can be made available to irrigate any of the land. At the rate of construction planned, 50,000 acres will receive water in 1944 and thereafter from 50,000 to 70,000 acres more will be added each year. It will probably be 25 years before all land in the project gets water. The Roza project, in the Yakima valley, will begin delivering water next year.

The Columbia Basin project embraces an area of 2,500,000 acres in eastern Washington, principally in Franklin, Adams and Grant counties. Of this area about half, or 1,200,000 acres, is estimated to be suitable for irrigation farming.

Repayment terms have not been established. The cost of water will depend on two items: (1), that part of construction cost allocated to irrigation; and (2), annual cost of maintenance and operation of water distributing facilities. Estimates are that the average for water rights will be between \$85 and \$100. Under existing authority, the secretary of the interior may defer the date of first repayment on account of construction for a period not to exceed 10 years to ease the financial burden of the settler, after which construction charges, without interest, may be spread over a period of 40 years.

### The Land's Value

Primary purpose of land classification survey in the Basin is to insure that water delivery is to only those lands on which irrigation farming can succeed. In addition to being classed as irrigable or non-irrigable, three classes of irrigable land are set forth: class 1, the best arable land; class 2, land of intermediate or average value; class 3, least desirable land for which it is proposed to provide a water supply.

Appraisals of the irrigable lands are based on the lands' "non-irrigated" value—the earning power of the lands determined by their character and use, without reference to the prospect of irrigation. From less than \$5 an acre, in the case of raw, desert land, appraisal values range to more than \$30 an acre for better, improved wheat lands in the Columbia Basin area.

### DAIRY HERDS CHIEF FARM INCOME SOURCE

(Continued from page 4)

1936 the growing period was 153 days.

Of about 1,500 farms in Bonner county, 80 per cent are operated by owners.



# 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-216—80 acres, 1½ miles from good town, in Detroit Lakes district, west central Minnesota. Fair buildings, good well and water, productive soil, nearly all cultivated, fenced. Price, \$2,000. Easy terms.

M-217—120 acres, 8 miles from Littlefork, on main highway, in Koochiching county, northern Minnesota. 15 acres cleared, 40 acres burned over, not hard to clear; no waste land. House in poor condition. Place has one quarter mile frontage on river, daily mail route, telephone. No well but water can be obtained at shallow depth. Sell for \$1,300. Terms to suit purchaser, 5% interest.

M-322—160 acres, cutover land, 10 miles from Northome, on good gravelled road, mail route, telephone line and school bus route, in northern Minnesota. No improvements but dealer offering this place for sale considers it some of best land in Northome territory. Land is level to gently rolling. Price only \$5 per acre.

M-103—70 acres, with 80 rods frontage on good fishing lake. Mail route, phone, school bus, three miles from railroad shipping point, in Aitkin county, northeastern Minnesota. 30 acres cultivated, all fenced; timber for fuel, good pasture. Four-room house, old barn for 15 head, several sheds. Price, \$1,000, with \$500 cash, balance terms.

## NORTH DAKOTA

N-256—320 acres, 3 miles from town, in Red River valley, eastern North Dakota. Well improved with eight-room house, barn, hog shed, milk house, garage and other small buildings; 220 acres crop land, 72 acres in grass; black sandy loam with clay subsoil; two wells. Place is especially adapted to stock farming. Price, \$27.50 per acre, one-fourth down, balance on easy terms, low rate of interest. Taxes about \$125 per year.

## MONTANA

S-167—80-acre irrigated ranch, close to foothills of the Mission Range, in the Lower Flathead valley, western Montana; 40 acres in timothy and clover, productive black loam soil, will

grow any crops common to this territory; mountain stream by door. Buildings, electricity, family orchard, pasture, some timber, also spring. Pasture can be rented adjoining this place. Ranch now carries 35 head of stock, using no outside pasture. Price, \$2,500, some terms.

S-300—493-acre eastern Montana ranch, 11 miles from Billings, 2 miles from school, in Yellowstone county. About 450 acres is river bottom land, of which 100 acres is cultivated and irrigated, more can be farmed. About 350 acres of good pasture which owner says will take care of 150 cattle. Land is fenced and cross-fenced, mostly woven wire; fair improvements, private irrigation system. Owner claims this is one of best small ranches in Yellowstone county. Will sell for \$30 per acre, including farm implements. Some terms.

## IDAHO

I-255—40 acres, 5 miles south of Weippe, in Clearwater county, northern Idaho; ½ acre in meadow, balance in timber; no improvements. Price, \$450. \$200 cash, balance \$50 per year with interest.

I-410—80 acres, 3 miles from Grangeville, in Lewis county, northern Idaho. About 50 acres tillable, balance pasture; fair improvements, spring water, located on gravelled road. Price, \$3,500. \$1,500 cash, balance terms.

I-561—165 acres, with 65 acres cultivated, 8 miles from Sandpoint, in Bonner county, northern Idaho; all tillable when cleared. Good three-room house, two good barns, family orchard, on electric power line, mail route and gravelled road. All fenced and cross-fenced sheep tight. Sell for \$4,250 with about \$2,000 cash, balance terms.

I-702—240 acres with ½ acre cleared and cabin partly built; 60 acres good land, balance grazing; lots of timber. Price only \$550. Located 19 miles from Sandpoint, in northern Idaho.

## WASHINGTON

W-1052—400-acre stock ranch in southwestern Washington. Most of tract lies well for cultivation when cleared; about 35 acres cultivated.

Large dairy barn, two houses and other buildings. Creek runs past the buildings. Place adjoins thousands of acres of range land. Electricity available, school bus, on good road. Price, \$12 per acre. About \$1,500 cash will handle.

W-455—30 acres, 2 miles from Winlock, in Lewis county, southwestern Washington; about 15 acres cleared, balance cutover but good pasture land. Small house, barn, two large chicken houses in good condition, one has concrete floor, the other has wood flooring; nice brooder house, good well, electricity. Small orchard of apples and cherries, about 30 nice filbert trees bearing this season. Price, \$2,400. \$600 cash, balance terms.

W-207—20-acre cutover tracts, on highway, in Grays Harbor county, western Washington, close to small town; rich bottom land, not hard to clear. Electricity available, school bus and mail route. Price, \$500 each. \$15 cash with \$7.50 per month on balance.

## OREGON

O-511—90-acre ranch, in Vernonia district, Columbia county, western Oregon. Several hundred acres of cutover land adjoin this ranch, making it especially suited to cattle or sheep. About 30 acres of sandy loam soil, on creek, sub-irrigated, produces good crops of hay, grain, fruits, berries and vegetables. House, barn and poultry house. Price, \$4,000. Will give terms.

O-209—Small ranch of 35 acres, well located in Albany district, western Oregon, all good grade land under cultivation. Four-room house, electricity available, fair barn for six cows, small poultry house, few fruit trees. Price, \$2,000 with immediate possession of buildings.

## BUSINESS OPENINGS

For Sale—Steam laundry, building and equipment, at a very reasonable price and on easy terms. Located in lively town and trading center with over 2,000 population, in eastern Montana.

Good opening for grocery or other business in small town but good trading center, in Lower Flathead valley, western Montana. Suitable building for rent or sale.

## When Farmers Strike Oil

Farmers near Richland, central Washington, are getting out of the "red." They are repairing, remodeling and building new homes. They have struck oil—peppermint oil that is distilled from the fields of mint on their little farms located in the Richland irrigation district.

In 1940 there were 350 acres of mint in this 4,500-acre irrigation district. Nearly every family has a patch of mint ranging from two acres up to 10 acres. The harvest totaled 21,600 pounds of oil, which they sold for \$2 a pound, or \$43,200. It averaged nearly 62 pounds of oil per acre, or \$124 an acre gross income. One of the growers said it cost him \$36.50 an acre to grow mint and get the oil extracted, ready for market.

### Just the Thing

Important thing about mint oil income at Richland is that it comes in the fall, a money crop just before winter, weeks after the asparagus, cherries, berries, prunes, tomatoes and grapes have been gathered and sold. It's that extra lump of cash that is putting these farmers over the hump financially after depression years and the low price cycle of recent seasons. Mint growers in one month paid \$2,000 on old accounts at a local store. They are using the oil money for furniture, refrigerators, new stoves and building repairs. The other day they met in town for a shingling bee and put a new roof on the local church. These farmers work together. For a long time they had wanted a crop that would occupy them profitably in the fall and raise their annual income. Someone tried mint, and when it had been properly tested, it was just what they were looking for.

It costs from \$6 to \$7.50 an acre to plant a mint field. Plants are obtained from established fields and are put into well-prepared ground five or six inches deep in rows. In the early stages it's a job to keep the weeds down to give newly planted beds a chance. Not much irrigation is



Tom Cass demonstrates the high-set spring-tooth harrow that took most of the hand weeding out of mint growing in the Richland Irrigation district, central Washington. Cass and other Richland farmers this year collected \$43,200 for oil they distilled from mint raised on 350 acres.

done until the blooming period, about July, and then a lot of water goes on. Some of the Richland growers irrigate mint five times. Once established, mint fields produce several years. Oldest field at Richland is six years, and it did a good job this past season, making 70 pounds of oil on an acre and a half.

### Working Together

Weeds have previously been a bugbear for mint growers, but the Richland men have licked that situation pretty well. While hand weeding used to be the bane of a mint grower's existence, this back-bending work has been reduced to a small factor by using a high-set spring-tooth harrow previously found useful in asparagus operations. Every second year they go into the fields with a disc, cut the beds "literally into pieces" and while that rough treatment is hard on weeds, it acts as a tonic on the mint plants. They make a strong

comeback and it seems to be just the thing.

Marvin Skeen tried another plan on three acres of mint. Turning lambs into it, he found they took the weeds and left the mint alone as long as it was growing and not cut ready for harvest. His field went 80 pounds of oil per acre.

Some of the local farmers have improvised the small amount of equipment needed to distill and take off the oil for themselves and their neighbors. During the season these little outfits run night and day, but the charges are held to a minimum, just about enough to cover costs.

### Top Oil Yield

Simon Carlson got one of the top yields this last year. Three acres on his ranch yielded 106 pounds of oil per acre on a new bed planted on land out of apple orchard only three years. Carlson used a little phosphate and potash fertilizer.

Mint oil, used for medicinal and other purposes, is going up in price a little with advent of national defense preparations. The 1939 crop at Richland brought 35 cents a pound less than the 1940. But these farmers hope the price doesn't skyrocket. Fat war-time prices might do more harm than good, they say.

### BUYS CABBAGE HEADS

Cabbage is a side-line crop on some Bitter Root valley farms in Montana. The past summer the cannery at Stevensville paid \$8 a ton for it. Among the growers were Otis Talbot & Sons who raised and harvested eight acres of cabbage.

### 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.

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