

raised on low, moist land, and after hay is taken off the stubble grows again, producing excellent grazing. But vetches produce nearly twice as much feed as oats and are of equal value to clover for feeding cows. A few have begun to raise sugar beets for their cows to feed in the fall, and they are undoubtedly the best root raised for milk and butter, the percentage of sugar being quite high, averaging 15 per cent. from actual tests at the agricultural station. It has been proved by experiment also that corn can be profitably raised in the Willamette valley for silage.

Corn and Alfalfa for Feed.

George Weeks, of Marion County, uses corn silage and considers it a profitable food for the dairy. Though, wherever clover succeeds well it is a more profitable crop than corn, for being more complete food for milch cows, it can be produced at less cost and does not exhaust the soil.

The valleys of the Umpqua and Rogue rivers also produce good crops of corn, both for silage and for grain, but are not so well adapted to the clovers. And I am sure that where irrigation is practicable the sandy lands in Southern Oregon would produce two heavy crops of alfalfa per year. And there is considerable land in the Willamette valley which has a sandy or gravelly subsoil and is not subject to overflow, which will raise alfalfa without irrigation. There is considerable of such land bordering the Tualatin river bottoms in Washington county, and doubtless there are such lands in other counties. It has been determined in the New York experiment station that: "Farm animals of all kinds find the fresh material of alfalfa very palatable, as much so as corn, and it is much richer in nitrogenous or muscle-forming matter than is corn. It thus supplements the nitrogenous poor corn fod-

der fed at the station, the alfalfa forage contains a little more moisture, ash, fibre and fat, much less starch and similar compounds, but nearly one and one-half times as much nitrogenous protein, and of this protein about 77 per cent. is in the form of easily digestible albuminoids."

Outside of Washington, Marion and Multnomah counties in this inter-mountain or valley region, modern dairying has made but little progress. There are a few creameries and cheese factories in Columbia, Clackamas and some other counties, only four in Southern Oregon and two in Eastern Oregon. In Southern and Eastern Oregon forage plants dry up early. Clover is not a successful crop, and the conditions are unfavorable to the dairy industry. In Eastern Oregon alfalfa, in the irrigable districts, produces two or three crops, and doubtless three crops could be raised in Southern Oregon, and the time may soon come when successful dairies will be established in these regions. In California in the dry valleys of the Sacramento and the arid region in Southern California, in Los Angeles and other counties, the dairy industry is making rapid development from the successful introduction of alfalfa by means of irrigation.

Many Imported Thoroughbred Stock.

The Oregon dairy herds are composed of the common stock of the country driven across the continent by the immigrants, which have been carefully selected for many years, and have been improved of later years by crossing with imported thoroughbred stock from the Eastern breeds. The Looney Brothers, in Marion county, introduced Jerseys. Ben Stewart & Sons, in Yamhill county, introduced Shorthorns and Ayrshires.

There are about 90 creameries and cheese factories in the state. I am unable to give accurate statistics of the production of each

factory. Some of the creameries make both butter and cheese. A few creameries and cheese factories make all the way from 100,000 to 150,000 pounds of butter or cheese per year, but most of them make less than 250,000 pounds annually. I estimate the production of butter at about 2,000,000 pounds, and the output of cheese at 500,000 pounds. At 20 cents a pound, the value of the butter product of the state would amount to \$400,000, and at 10 cents for cheese the value would be \$50,000.

The Extent of the Industry.

Multnomah county has more milk dairies than all other counties together. About 100 dairymen supply Portland with milk, but some of these dairies are located in Washington and Clackamas counties. Estimating the amount of milk furnished by each dairyman at 45 gallons, a low estimate and the daily milk supply of this city would be 4,500 gallons, or, in round numbers, 6,400,000 per year, which at the price of 20 cents a gallon would amount to \$342,500.

NOTES AFIELD.

Several of the farmers in the vicinity of Burlington are now cutting hay and the yield seems to be good. Small hay looks well and a little more rain will carry it through all right. (Well, it looks as though they are getting it.—Ed.)

The Burlington Creamery Company started their creamery station Monday, June 6, and on that day 800 pounds of cream were received. The supply greatly increased, until on June 10 1,650 pounds were received. All the farmers are glad to have a place to which they can take their cream. The cream is shipped to Seattle every day. Mr. J. F. Thorne of the Fulton Market, Seattle, is receiving the entire output of the station.

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