Alaskan Agriculture

IN RECENT years the United States has become impressed with the strategic importance of Alaska and its vulnerability to attack. In the past the Territory has produced only a small proportion of its food, although extensive areas of potential agricultural land are available. Since 1946 the federal government has been cooperating in an effort to make the Territory more nearly self-sufficient in the food supply for its population, which has increased from 72,524 in 1939 to 126,661 in 1950.

Progress has been retarded by the unusual features of the soils and climate of this subarctic region, the short summer with nearly 24 hours of daylight, and the severe, prolonged winters. As a foundation for increasing production under these conditions, the Alaska Agricultural Experiment Station has been expanded since 1947. New facilities have been constructed, and a competent staff has been employed. The experimental work, carried on as a joint undertaking by the U. S. Department of Agriculture and the University of Alaska, is designed to develop crop varieties, cultural methods, and livestock enterprises adapted to Alaska.

Recent experiments show that fertilizers are absolutely essential for efficient food production. Because of the high costs of labor and land-clearing, potato farmers can profitably use 800–1,000 pounds per acre of concentrated fertilizers. Dairy farmers can lower feed costs by one half and raise 50–100% more feed by following fertilizer recommendations developed in the past three years.

Potato breeding and variety testing are in progress to develop or select a potato that produces a heavy yield of firm-skinned, uniform U. S. No. 1 tubers, with shallow eyes and good cooking qualities. In variety yield trials, ten new selections, chosen from over 8,000 seedlings, have proved superior to any of the named varieties in eye depth, smoothness of skin, and productivity.

Vegetable varieties and bush and tree fruits are being tested on an extensive scale, to select the best commercial varieties based on their adaptation to various types of soils and their resistance to disease and insect pests. Winter hardiness of perennials is also being tested.

Bulls of the Red Dane breed have been introduced into Alaska and have been bred with Guernsey cows. Heifers from these matings are now calving and promise to be good milk producers. Also, 560 cows were artificially bred last year.

Research has shown that roughage can be processed as silage more cheaply than as field-cured hay, with much smaller losses. Most dairymen now depend mainly on silage for winter feed, for it takes 25–40% less acreage to feed a cow all winter on silage than on field-cured hay.

More complete cost and income data are being widely distributed among Alaska farmers. Information on markets for farm produce, their location, total market outlets, and consumer preferences is assisting in increasing consumption of Alaska products, thus reducing imports and making shipping space available for military equipment and supplies.

The primary objectives of agronomic investigations are to develop superior varieties of forage and cereal crops and to determine the most profitable methods of producing them. Forage species and varieties from various parts of the world are under test. Work begun in 1948 resulted in release of two superior cereal varieties selected by the Station—Golden Rain oats and Edda barley—to Alaskan farmers in the spring of 1951. A red clover variety and a yellow-flowered alfalfa, now under cultivation in the state of Washington, should be ready for distribution to Alaskan farmers by 1952 and 1953.

Although Alaska has been producing only about one sixth of the food it consumes, this can be increased to perhaps three fourths of its needs when more land is cleared and answers are found for the unusual technical agricultural problems.

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