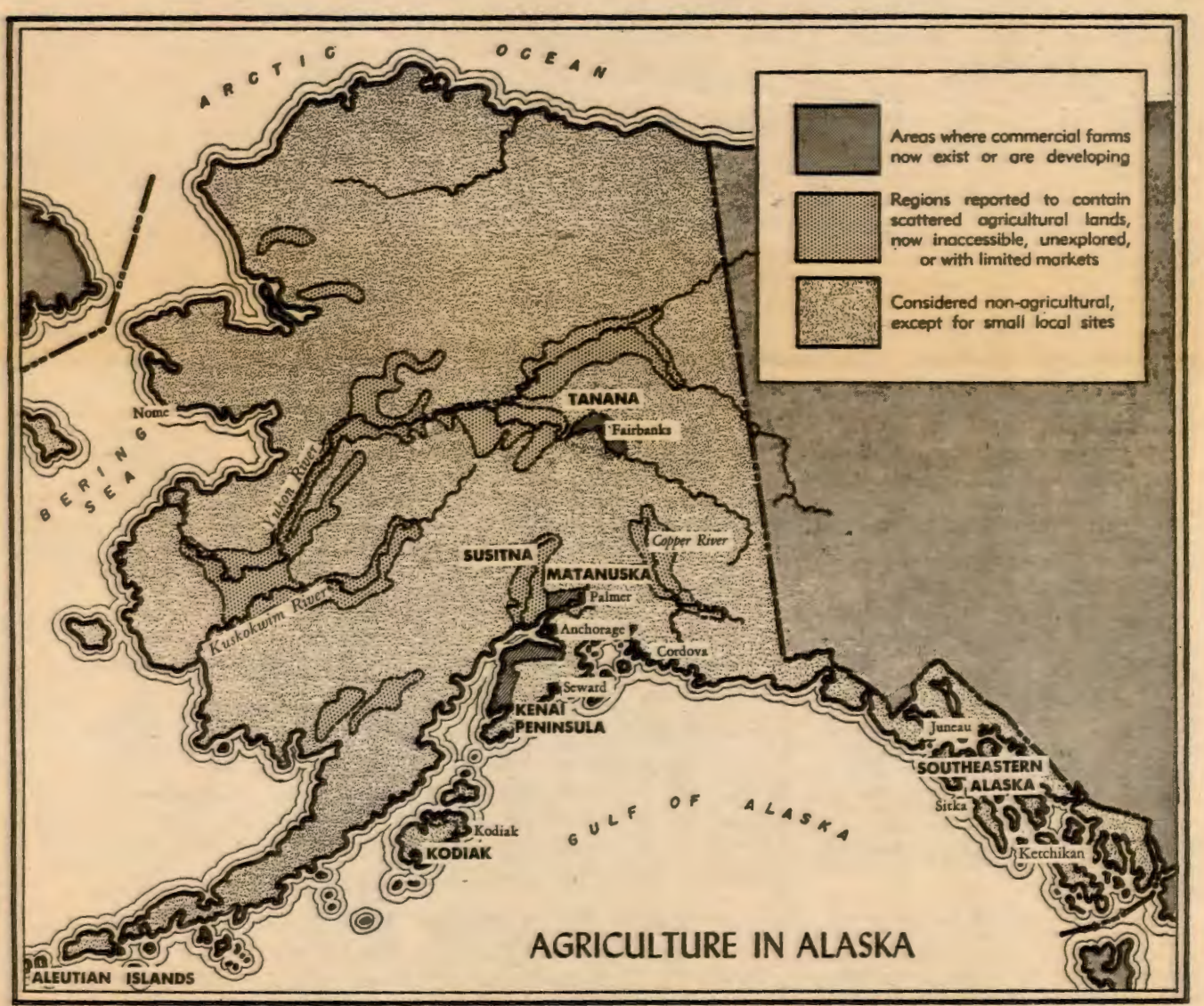
Information for Prospective Settlers Concerning . . . .

AGRICULTURE IN ALASKA



The Matanuska area and farms near Anchorage grew 67 per cent of all agricultural products sold from Alaska's farms in 1957, while the Tanana area grew 16 per cent. Agricultural sites too small to show on this map are scattered throughout Southeastern Alaska where 9 per cent of the 1957 crop was produced. The Kenai Peninsula, Kodiak Island and several wool enterprises in the Aleutian Islands accounted for 8 per cent of the 1957 crop.

ALASKA'S agriculture is a growing industry. In 1957 some $4½ million worth of food and feed grown by 200 full-time and 350 part-time farmers brought nearly $9 million in the market place. Crop volume doubled between 1950 and 1955.

While Alaskan agriculture has been rapidly expanding, growers have been also keeping abreast of Stateside grading and packaging practices. They now offer home-grown products of the highest quality. A few farms are as modern as any in the States. Some farmers net $10,000 year or more, although the average is closer to $4,000 because many farms are small and others are in early stages of development.

Because of modern diets and because of competition, Alaskans will always import such warm-season crops as fibers, coffee, tree fruits, sugar, fats and oils, corn and melons. Since the onset of World War II the Territory's agriculture has been out-paced by its markets. Probably less than a fifth of the food that might be grown in this sub-arctic region is now produced here.

Only about 22,000 of the million or more acres of accessible, good farm land in the new State have been cleared for cultivation.

Immediate five-fold expansion needed to fill the gap between food produced and food consumed is neither possible nor desirable. Long-established buying patterns give way slowly as local products replace Stateside imports. Here, as elsewhere, all markets will never be supplied exclusively by locally grown food. Processing, holding and distributing facilities must be developed to handle temporary seasonal gluts that may exist while there are shortages nearby.

Other problems yet to be solved also put a brake on quick, large-scale expansion. Land clearing costs $50 to $150 and often more per acre. A farmer needs considerably more capital to launch a farm enterprise here than for a comparable Stateside venture. Livestock, feed, freight, labor and living costs are higher than in the States and long-term low-interest capital is scarce.

But for all their problems, Alaska's farmers have disproved the fable that their 586,000 square-mile state is solely a forbidding land of glacier and tundra. They are doing it with high yields of good grains and grasses, fine quality vegetables, and excellent dairy herds. Although they farm on a far frontier they must—and do—meet U. S. grade requirements.

Living costs are higher than in the States. Housing is scarce in some areas and is often sub-standard by Stateside criteria. A 1958 food price survey showed that a "basket of groceries" containing 40 standard items cost Seattle consumers $17.01. The total cost of these same items was $19.75 in Ketchikan, $20.54 in Juneau, $23.10 in Anchorage, $22.56 in Palmer and $25.60 in Fairbanks.

Alaska's major agricultural regions are the Matanuska-Susitna area, the Tanana Valley, the Kenai Peninsula, southeastern Alaska, Kodiak and the Aleutian Chain (see sketch map). They are widely separated and have different climates.

The southern coastal regions, the Alaska Peninsula, Kodiak and the Aleutian Islands have a maritime climate. The moderating influence of the sea reduces temperature variation between summer and winter and creates a milder climate than that of the northern interior. The same influences bring excessive cloudiness, abundant rainfall, and cool summer days to delay the maturing of crops.

Although there is still good agricultural land open to homesteading in most parts of Alaska, many settlers find it advantageous to buy farms already partially developed. Several months are needed to locate a desirable farm or homestead. Settlers usually need employment for several years to tide the family over until their farm becomes an income-producing venture.

Alaskan farms employ few agriculture workers except for brief periods during the harvest season. A skilled worker can often find seasonal employment during the summer, but year-long jobs in his own kind of work may be very difficult to find. Many homesteaders have had to relinquish their places because off-farm employment was not available.

The northern interior is typically continental, with cold winters and warm summers. The moderating influence of the oceans is cut off by surrounding mountain ranges. Although the growing season is a little shorter, warmer temperatures and more summer sunshine make crops mature faster than along the coasts.

Climatic conditions vary even between adjacent farms because of topography and local difference in elevation. Winds that move down river valleys or canyons affect temperature, precipitation, soil moisture evaporation, and the length of the growing season. This should be kept in mind when considering climatic data, for there may be local extremes differing greatly from the average available for general areas. These local extremes may reduce the number of frost-free days sharply, or they may create isolated favored sites. For example, a weather station five miles northwest of Homer shows an average frost-free season of 144 days as compared to only 107 in Homer proper. The average maximum growing season temperature is only 53 degrees in Homer while five miles northwest it is 58 degrees. Similar differences can be found in other farm areas.

COMPARE THESE WEATHER DATA WITH FIGURES FOR YOUR PRESENT HOME

Place	Extremes* High	Extremes* Low	For the frost-free season only: Start[1]	Length[1]	Max.[2]	Min.[2]	Rain	Sunshine[3]
	F°	F°	Date	Days	F°	F°	Inches	Hours
Matanuska Susitna Area								
Anchorage	86	-38	5/21	113	64	46	6	8 - 17
Palmer	87	-42	5/30	100	66	42	10	10 - 17
Matanuska	91	-41	5/28	105	66	45	7	9 - 17
Tanana Valley								
Fairbanks	93	-66	5/21	101	68	49	6	9 - 21
Big Delta	90	-63	5/21	100	66	44	7	10 - 20
Nenana	98	-66	5/20	98	70	46	5	12 - 19
Kenai Peninsula								
Homer	79	-18	5/31	107	58	41	7	8 - 17
Kenai	87	-48	6/17	72	61	45	6	7 - 17
Seward	84	-29	5/17	135	59	45	6	6 - 16
Southeastern Alaska								
Juneau	87	-10	4/22	183	59	44	29	4 - 16
Petersburg	84	-19	5/18	138	61	45	33	5 - 15
Kodiak-Aleutian Islands								
Kodiak	81	-5	5/1	167	53	45	29	5 - 15
Unalaska Island	80	5	5/18	133	56	44	14	5 - 14

*These two columns give the coldest winter temperature on record and the highest summer temperature.

[1] Average date of the last frost in spring, and length of frost-free period in days, respectively.

[2] Average maximum and minimum temperature during the frost-free season.

[3] The first value is the average actual hours of daily sunshine while the second figure gives the possible hours of daily sunshine.

MATANUSKA – ANCHORAGE – SUSITNA REGION

Including the Matanuska Valley, the Anchorage area and the Susitna Valley, this general region lies at the head of Cook Inlet. Homestead development is still in its early stages in the Susitna Valley. There are several well-developed farms in the Anchorage area and others that are beginning ventures. Most large-scale commercial agriculture is found in the Matanuska Valley.

Only a fourth of the 50,000 acres of tillable land in the Matanuska Valley is now cultivated. Most good agricultural land is in private ownership. Farms are occasionally available for sale at $15 to $25 an acre for uncleared land and $200 or more per acre for cleared land.

Arable soils in the Matanuska-Susitna area overlie gravels and sands at relatively shallow depths except near the Matanuska River where deep silt mantles are found. Suitability for cultivation varies with soil depth, topography, and wetness. Scattered areas of land have only a few inches of soil over gravel. Some areas are limited for agricultural use by swamps and hills. Most soils are not productive in their natural state but are responsive to fertilization.

Climatic limitations usually preclude the ripening of tomatoes and cucumbers outdoors. Many home gardeners and a few commercial growers have greenhouses for these crops. Such tender crops as corn, lima beans, and melons do not mature and fruit trees winterkill.

Farmers sell much of their produce through the Matanuska Valley Farmers Cooperating Association, or individually to military establishments and retail outlets in Anchorage or Palmer.

Dairying is the region's most important farm enterprise. It brought $1,619,616 into farmers' hands in 1957. Grade A dairies in the Valley market their milk through the Matanuska Valley Farmers Cooperating Association in Palmer. They supply less than half the milk consumed, the balance consisting of evaporated, dried, or canned milk.

A homesteader's cabin near Wasilla in the Matanuska Valley

Dairymen got about $11 a hundred-weight for four percent milk in 1957. Efficient operators spent $6 to $7 to produce it. Many used the stud service of the Dairy Breeders Association for artificial insemination breeding to Red Dane, Holstein and Guernsey blood lines.

Although only about half of the fifteen inches of annual precipitation occurs during the growing season, it is generally adequate due to low evaporation rates. Downslope winds sometimes create droughts. May and June are usually dry. Late summer rains make haying difficult.

Oats and peas or bromegrass make excellent hay and ensilage. Four to five acres per cow are needed to meet roughage requirements, including pasture. Most farmers import concentrates because they do not have enough land cleared to grow all their own livestock feed. Sixteen per cent mixed dairy feed sold for $6 to $7 per cwt in 1956.

Barley is the best-adapted cereal and early plantings mature almost every season. Oats follow in adaptability and recommended varieties produce very satisfactory yields. Wheat is not generally recommended although early varieties can be grown with some degree of success. It is not uncommon for good farmers to get yields of 90 bushels of oats, 80 bushels of barley, 40 bushels of wheat, two tons of hay and six to ten tons of silage to the acre. Average yields are lower.

The dominant forage here and elsewhere in Alaska is oats and peas. Perennial grasses like brome and timothy are becoming more popular. Legumes generally do not possess sufficient cold resistance. It is expected that within ten years improved varieties of alfalfa and red clover, as well as timothy and bromegrass, will be available.

Potatoes are the Valley's second most important source of cash income. Good potato growers average seven to twelve tons of US No. 1's per acre, get $80 to $100 a ton for their crop. Beginning farmers cultivating new land usually get smaller yields and often lose more potatoes through rough handling and inadequate storage facilities.

Common vegetable crops are lettuce, carrots, cabbage, celery, broccoli, cauliflower, green onions, radishes, turnips, rutabagas. Efficient growers frequently get yields of 12 to 15 tons of cabbage, seven tons of lettuce and seven to nine tons of carrots to the acre.

Prices paid in the Matanuska Valley in 1958 for feed, fuel, and other farming needs.

Tractor gasoline, per gallon	$0.25
Furnace oil, per gallon	0.18
Coal, per ton	15.50
Burlap sacks, 100 lb size, each	0.21
Binder twine, per bale	13.15
Dairy feed — 16%, per cwt	6.35
Calf pellets, per cwt	9.00
Calf feed mix, per cwt	12.25
Bone meal, per cwt	8.00
Ammonium nitrate, per ton	145.40
Treblesuperphosphate, per ton	144.00
8 - 28 - 16 fertilizer, per ton	209.00
Canada field pea seed, per cwt	7.15
Oat seed, per cwt	5.71
Dalapon, 50 lb drum	52.50
Di-nitro herbicide, per gallon	8.25

Home gardeners grow these and other cool season vegetables—beets, brussels sprouts, kohlrabi, peas, parsnips, kale and other greens, leaf lettuce and rhubarb. Raspberries, currants, and a native hybrid strawberry grow well but no full-scale commercial berry ventures exist, the high cost of harvest labor being the chief drawback.

Several poultrymen near Anchorage received about ninety cents a dozen for their eggs and fifty cents a pound for dressed chicken in 1956. They must compete with airborne and express eggs shipped from Canada and the States which, while generally of poorer quality, undersell local eggs.

A few hog farms in the Anchorage area utilize military garbage and have been successful in marketing their pork. An occasional farmer or homesteader raises and markets a few rabbits, goats or sheep.

In the winter moose cause damage to fences and windbreaks, and eat hay and grain left in the fields. Shrews eat small fruits and girdle ornamentals. Severe winter winds cause considerable erosion in the Valley on lands not protected by grain stubble, permanent seedings

Land still open for homesteading in the Matanuska Valley is generally remote from roads, electric power, and telephones.

About five acres of tillable land will support one dairy animal. If a dairy farm needs 16 milk cows to provide an adequate family living, the homestead must eventually support an additional 12 head of replacements and dry stock. A herd of this size needs 140 acres of tillable land for roughage and grain. An individual can homestead only 160 acres, of which no more than 100 acres is usually suited for cultivation. As the homestead develops, adjoining homesteaded land may become available for rent or purchase.

or adjacent timber. Spring runoff often causes water erosion on slopvised to rotate vegetable crops with grains or grasses, practice contour ing land. Row crop farmers are advcultivation of sloping fields, and keep erodable fields in permanent grass or woods.

The lower Susitna Valley consists of uplands and river terraces interspersed with vast swampy or "muskeg" areas. Belts of rolling uplands are broken by steep hills and ridges. Soils and growing conditions are similar to those of the Matanuska Valley but remoteness from power lines, roads, and markets has retarded settlement. The region is known to contain several thousand acres of Alaska white birch which might someday support a profitable lumber and veneer plant. Short frost-free seasons mark the upper Susitna Valley where some localities have only a 60 to 75-day growing period. Air drainage causes wide differences so that one site may have only 39 days while another nearby has 95 days. Portions of the lower Matanuska Valley enjoy 100 to 120 days.

TANANA VALLEY

More than 65,000 residents and military personnel live in the Tanana Valley where Fairbanks is a major trade center. Early agricultural settlement resulted from gold mining and railroad construction but declined with these activities. After World War II many young families homesteaded under provisions of the GI Bill. There are now over 150 farmer - homesteaders. Many have jobs in Fairbanks or at military bases to meet high costs of land clearing and well drilling.

Potential agricultural lands of this area are extensive — 165,000 acres have been classified out of an estimated 300,000 acres suitable for cropping. They reach from the Big Delta area on the east to Nenana in the west. Land capabilities vary greatly within short distances. More potential cropland is added each year as knowledge of permafrost conditions is gathered. Many bottomland acres formerly considered useless because of permafrost are now being cleared and drained.

Soils in the area range from coarse through fine loamy sands on valley floors to silt loams on slopes. A high mica content contributes to erodibility and contour cultivation is recommended on sloping land.

It costs somewhat less to clear land in the Tanana Valley than in the Matanuska Valley. Much of the land is suitable for grain and forage. It is believed that dairy farming will eventually be the dominant type of agriculture. Beef production may also prove economically feasible. A few homesteaders are planning or have started small beef herds in the Big Delta section.

The growing season on sites likely to support farms is about 100 days. The slightly shorter growing season is more than offset by more sunshine and higher temperatures during the growing period. Out of a possible twenty hours of sunshine, an average of about eleven is realized. Temperatures remain near their maxima for slightly longer periods each day than in other areas.

Harvesting potatoes in the Tanana Valley. This crop was sold to military establishments near Fairbanks.

Some 4,,200 acres of farm land have been cleared in the Tanana Valley. Most homesteaders have only a few acres in crops—an average farm has less than forty acres under cultivation. The bulk of their farm income is from potatoes and truck crops. All cool season crops of the Matanuska Valley-Anchorage area are adapted to the Tanana Valley. Certain warm season vegetables such as beans cucumbers and tomatoes mature better than in the Matanuska Valley. With varieties and cultural practices adapted to the area, good yields can be obtained.

There are several small dairy farms and one large commercial dairy. They receive $9 to $10 a hundred-weight for four percent milk.

Alaska's soils must be fertilized to grow satisfactory crops. New fields must be fertilized for the first crop . . . Recommended practices list, for example, 200 pounds of 10-20-10 for each acre of grain . . . 750 pounds of 8-28-16 for an acre of potatoes . . . . up to 250 pounds of 10-32-10 plus 280 pounds of ammonium nitrate for each acre of grassland.

Poor domestic water supplies limit the feasibility of livestock enterprises at some sites. A few homesteaders keep milk goats, sheep, hogs, horses and chickens.

Considering market opportunities, soil resources and the relatively low cost of clearing land, the Tanana Valley perhaps has a larger agricultural potential than the Matanuska Valley. Improved transportation now offers an opportunity to grow cereals and bedding in the Tanana Valley for shipment to the Matanuska Valley and the Kenai Peninsula, both deficit areas with respect to grain, hay and straw. While this inter-Alaska movement has not yet developed it presents a real possibility for strengthening the agricultural economy of Alaska.

KENAI PENINSULA

Some 5,000 people live on the Kenai Peninsula and in the Seward area with an additional thousand summer residents working in the fishing, construction, and shipping trades.

Soil surveys show wide variations in soil quality. In general, they are medium-textured. Rolling grasslands contain much organic matter and are somewhat more acid than other soils in Alaska. Like soils elsewhere, they are inherently infertile but respond well to commercial fertilizers and good management. Nearly 2,000 acres are cleared.

Military construction has opened a limited market for Peninsula products. The Sterling Highway has made it easier for Kenai Peninsula farmers to compete with the Matanuska farmers for the Anchorage markets.

Most farms are small and in their early stages of development. There are a number of small chicken farms. Several have a few dairy or beef cattle. Dairying and perhaps beef raising are thought to be logi-

Estimated costs and returns for raising a steer to slaughter age on the Kenai Peninsula, not including the cost of maintaining a brood cow.

Expense & income items		Range in costs & returns Low	High
EXPENSES			
Feed*			
First season			
Calf meal	60 lbs.	$ 6	$ 9
Clover-grass hay	600 lbs.	6	12
Silage	600 lbs.	4	6
Barley	200 lbs.	6	8
Pasturage range		2	5
Second season to butchering			
Hay	400 lbs.	4	8
Silage	5 tons	60	75
Pasturage range		2	5
Total feed cost		$ 90	$128
Other expenses			
Cost of calf		$ 5	$ 15
Housing		1	2
Miscellaneous		14	22
Total cost		$110	$167
RETURNS			
Sales value			
420 lbs. @ 35 cents		$147	
480 lbs. @ 50 cents			$240
Net return per steer		$ 37	$ 73

*Fed six months and then put on range. Roughed through winter, ranged second summer and butchered shortly after—before going off condition. Johnson, Alaska Extension Circular 1, June 1954

cal major enterprise of the future. There is a lush growth of roughages and an expanding market for livestock products. Potatoes and hardy truck crops grow well near Homer, in the Kenai-Kasilof area and in other favored spots. Crop yields are similar to those in the Matanuska Valley.

Much of the area south of the Kasilof River is covered by a rank growth of native grasses, small plants and brush. This vegetation reaches into the Caribou Hills and offers potential grazing range for cattle for three to four months of the year. Winter ranging in most of this area is not possible because of heavy snows, damp, cold weather and the low feeding value of winter vegetation. Native grasses can be cut for winter feed in some places.

Open sheds to protect livestock from winter weather and trench or upright silos for winter feed storage are satisfactory minimum facilities. Livestock "roughed" through the winter gain weight rapidly on the highly nutritious new summer growth of the grasslands.

The climate of the Kenai Peninsula is basically maritime. As elsewhere in Alaska, there are great local differences. The town of Kenai has an average frost-free season of only 72 days although in some parts of the Homer highland area it is twice that long. Daily temperatures during the growing season do not vary much, averaging from 61 to 44 degrees. Precipitation is usually ample due to low evaporation rates and cool soil and air temperatures. Cloudy weather is quite general throughout the growing season. About nine out of a possible seventeen hours of sunshine per day is realized over the area as a whole.

A small farm in the Kenai Peninsula near Homer

North of the Kasilof River there are several small dairy and truck farms. Little natural grassland occurs here and timber varies from thick stands of brush to heavy spruce. Most land must be cleared and broken for agricultural use.

Cultivated grasses, such as timothy, do well on thoroughly prepared and fertilized land. Many cool, cloudy days during the growing season retard the ripening of grains. Hay making is often difficult due to rainy weather at harvest time. Until earlier-maturing cereal varieties are at hand, livestockmen will import most of their grain.

SOUTHERN ALASKA

A population of 35,000 to 45,000 scattered over several cities like Juneau, Sitka and Ketchikan constitutes a market for neighborhood dairy, poultry and truck farms in southeastern Alaska. This area is now not a market for central Alaska-grown products for it is easier to ship food from Seattle than from Anchorage. Transportation within the area is by ship and airplane. Roads are sparse and there is only one ferry-road connection with central Alaska's highway system.

Fur farming was once a prosperous industry. A few fur farms still remain in this part of Alaska. Cheaper feed and better disease control methods may encourage fur farmers to return to Alaska, particularly if the demand for furs should take an upward turn.

Small production volumes mean high costs and high selling prices. The beginning farmer can expect severe competition from large efficient farmers in Alaska, the States and Canada.

Southeastern Alaska's chief products are fish and timber. The Forest Service estimates that an annual harvest of over a billion board feet of pulpwood, plyboard, lumber and its by-products can be harvested perpetually from the 21 million acres in its National Forest. Pulp and plywood mills now operate in southeastern communities.

There were several large and long-established dairy farms near large towns but they faced increasing Stateside competition. Dairies are now found only near Juneau and Petersburg. All concentrate feed is shipped from the States.

The average size of all farms in the United States was 242 acres in 1954. In Alaska a settler can only obtain 160 acres by homesteading. Some of this tract can never be used because of wetness, steep slopes, or other limitations.

Land must be cleared at costs ranging from $50 to $150 per acre. Yet the homesteader cannot obtain a mortgage loan until he has the title to his land. Most non-veteran hometeaders do not receive title until three years after they have occupied their tract.

By the time land is cleared, a home and barn built, machinery, animals and equipment acquired, a homesteader may have $65,000 and ten years of hard labor invested in his under-sized tract.

Some hay, silage and pasture are grown. Land is not plentiful and the cost of reclaiming it from the sea or the vigorous forest is high. There are several large poultry farms in southeastern Alaska.

Most home gardens do well. Tomatoes and peppers can be grown outdoors in favored spots. Northern varieties of cherries and apples bear fruit but apple scab may make commercial production a costly venture. Cane fruits and strawberries grow luxuriantly and have excellent color, flavor and yield.

The frost-free season in southeastern Alaska is by far the longest to be found in the 49th State. At Yakutat Bay it averages 120 days, and in the Annette Island vicinity it stretches to 200 days. In many areas summer temperatures remain too low—and the humidity too high—for some economic crop plants. The persistent cloudiness of the area reduces the possibility of over fifteen hours of daily sunshine to slightly over five hours per day. Precipitation is abundant, over thirty-five inches falling during the growing season alone.

KODIAK & ADJACENT ISLANDS AND THE ALEUTIAN CHAIN

Some 9,600 people reside on these far-flung islands, many stationed at military establishments. Stock raising is the leading agricultural enterprise. Ranchers in the region have an estimated 14,000 sheep and 1,700 cattle. Expansion of the livestock industry is limited not by rangeland—which is abundant—but by lack of winter feed, expensive transportation and poor market opportunities. Wool must be shipped to Oregon. Markets for beef are relatively small or involve complex shipping arrangements.

Native grasses, sedges and other forage plants grow profusely from Kodiak westward throughout the Chain, providing seasonal and sometimes yearlong grazing. Kelp also provides a nutritious roughage at some beach sites.

Several islands are now under lease from the Bureau of Land Management. Additional Islands may be opened to the livestock industry by further range surveys.

It is believed that summer range may support several hundred thousand cattle and sheep. On some islands the number of animals that can be supported depends upon the amount of winter feed that can be put up.

Most islands are treeless but some are too rugged for livestock and some have neither beaches nor harbors. Predators cause some livestock losses. Fox kill young lambs and brown bear are sometimes a menace to cattle and horses.

The climate of the region is typically maritime, with abundant precipitation. Cloudiness restricts available sunshine to less than six hours per day during the growing season. Soils generally contain much raw organic matter. On Kodiak Island there are areas covered by inert volcanic ash from the 1912 Katmai eruption.

Kodiak grass-fed beef is sold locally and occasionally in Anchorage. Slaughter houses and cold storage facilities are being developed. There is one dairy on Kodiak Island but no truck farms. Some fresh vegetables now shipped in could be grown there and marketed.

Beef from Chirikof Island is flown to Anchorage. Sheep and cattle from Umnak and Unalaska have been killed for local consumption. Quality wool has been shipped Stateside for many years.

Reindeer and musk-ox thrive on Nunivak Island. Some reindeer meat has been marketed in Alaskan communities. By Federal laws reindeer can now be owned only by native people.

OTHER AREAS

There are many other places in Alaska where crops can be grown but their development awaits the coming of a larger population and better transportation. Small areas suitable for hardy crops exist between Bristol Bay and Cook Inlet. A market for fresh homegrown vegetables might be developed at such communities as Dillingham and Bethel. They might also support one or two general farms to supply milk, poultry and dairy beef.

Eskimos at Unalakleet grow excellent gardens using only fish waste as fertilizer. Their fresh vegetables have been sold in Nome. Lack of marketing knowledge and uneven supply are serious problems. Soils in the river valley are probably more productive than gravelly areas near the village where garden crops are now grown.

The Seward Peninsula market is not large although new military bases may create outlets for fresh produce grown on a few small farms. Long cold winters probably preclude a profitable domestic livestock business. Better reindeer management practices might make a reindeer meat industry profitable.

The Kuskokwim Valley in the vicinity of McGrath offers possibilities for a livestock economy if cheap land clearing methods are developed. Along stream banks and at other places where soils are sufficiently well drained, potatoes and hardy vegetables can be grown. The only transportation into the area is by air and, in the summer, by river boat. Road transportation and the development of nearby markets are necessary to warrant commercial-scale farms.

Farm development loans are difficult to obtain in Alaska, particularly by the newcomer or homesteader who is inexperienced and unknown. A beginning farmer must have a $20,000 equity, or be prepared to develop slowly from off-farm earnings.

At Ft. Yukon and along the Yukon and Kuskokwim rivers home gardens have been grown for many years, mostly by Indian residents. They produce large yields when commercial fertilizers are used.

INSECTS & DISEASES

Although Alaska has many insects, few species are of economic importance at the present time. Many insects destructive in the States have not yet appeared on cultivated plants in Alaska. They will become problems as agriculture expands.

Consistently destructive is the root maggot which attacks the widely-adapted cabbage family, turnips and radishes. These vegetables cannot be grown anywhere in Alaska without treatment to discourage root maggots. Cutworms are sometimes a nuisance in gardens and fields.

Mosquitoes make living in wooded areas uncomfortable for people and animals at certain seasons, as they do in similar environments in the States. No local mosquitoes are known to carry diseases.

Bees can be kept and in most parts of Alaska will make small amounts of honey. Those who have tried bee-keeping do not believe it to be a feasible commercial venture.

Many serious plant diseases of the States are not now troublesome in Alaska, probably due to the smaller scope and nature of the territory's commercial agriculture. As the industry develops, plant diseases will probably become worse and require remedial measures that are not needed today.

Ring rot in potatoes is the most serious economic plant disease at this time. Virus transmitting insects are found in Alaska. Care must be observed in importing virus- and insect-free nursery stocks and transplants.

All livestock entering Alaska must have a certificate showing they are free of communicable diseases. Dairy herds are tested annually for brucellosis and tuberculosis. No tubercular animals have been found since 1950. Brucellosis, once common in Alaska's herds, is now eliminated. Alaska's animals have not been subject to many diseases common in the States. It is hoped that careful screening of incoming animals can keep out diseases.

Popular makes of farm machinery and equipment are sold in Alaska at Stateside list prices plus cost of shipping. Also available are well-known feed and fertilizer brands, especially those common in northwest States.

AGENCIES SERVING FARMERS & SETTLERS

BUREAU OF LAND MANAGEMENT
Box 1481, Juneau, Alaska

Use or eventual ownership of all public domain is obtained through the Bureau of Land Management, Department of the Interior. Applications are processed by the Anchorage Land Office for the First and Third Judicial Divisions, or by the Fairbanks Land Office for the Second and Fourth Judicial Divisions. Because of Alaska's great size and the daily changing of areas available, no listing of lands is attempted. A potential homesteader must call personally at the appropriate land office to obtain adequate information.

Homestead Requirements A maximum of 160 acres may be homesteaded by a U. S. citizen or by anyone who has taken out his first papers. Patents (deeds) are issued only to citizens.

An entryman who is not a war veteran must live on the land not less than seven months per residence year for each of three years. He must cultivate one-sixteenth of the total area during his second entry year and one-eighth of the total during his third entry year and each year thereafter until final proof (documented evidence of completion of requirements) is filed. Final proof must be filed within five years of allowance of the entry. An entryman must construct a habitable house on the land before he files final proof.

A veteran of World War II or the Korean War who has served nineteen months in the United States military forces in wartime and has an honorable discharge or was discharged with less than nineteen months service because of disability incurred in line of duty, may make final proof if he lives on the land seven months during the first year, builds a habitable house, and meets the same cultivation requirements that apply to non-veterans.

Grazing Leases Unappropriated and unreserved land may be leased for the raising of livestock. Leases may be issued for a 20-year period. No minimum or maximum acreages are set by law. Grazing fees are set at incentive or developmental levels and depend upon the carrying capacity of the land and months of use.

DEPARTMENT OF AGRICULTURE
Palmer, Alaska

The Alaska Department of Agriculture is primarily a regulatory agency.

Vegetable and egg inspection is done by marketing personnel stationed at Palmer and Fairbanks. This service has brought about uniform grading of products for both military and civilian markets. Seed and nursery stock inspection are another service offered. "The Alaska Market News" is distributed monthly to farmers and merchants and is a report of current prices and weather data. Agricultural statistics and reports are also compiled by the Department.

Two Department veterinarians help livestockmen with problems, carry out a brucellosis and tuberculosis eradication program, and enforce meat inspection and slaughter-house regulations to protect the health of the public. They also supervise the entry of livestock into Alaska.

A farm loan program is administered by the Department, making loans to Alaskan farmers qualifying under their policies. Because of limited funds, assistance has been restricted to those individuals who have farmed one year or more in Alaska.

Successful farmers in Alaska grow adapted crop varieties . . . control insects and disease with sprays . . . and use commercial fertilizers, even on newly cleared land.

ALASKA CROP IMPROVEMENT ASSOCIATION, Palmer, Alaska

This organization of farmers, similar to crop improvement associations in the States, promotes quality seeds of locally-adapted crops. The Association, under authority of the Alaska Department of Agriculture, now certifies seed of potatoes, oats, barley and wheat and provides for the increase and equitable distribution of new varieties released by the Alaska Agricultural Experiment Station. It is also an educational association designed to acquaint growers with the benefits of good seeds of adapted varieties and to encourage their use.

FOREST SERVICE, Juneau, Alaska

National forests in Alaska are administered by the U. S. Forest Service which has a regional office at Juneau and field offices at Ketchikan, Petersburg, Craig, Sitka, Cordova and Seward. The Tongass National Forest includes sixteen million acres or seventy percent of southeast Alaska. The Chugach National Forest contains about five million acres and includes the coastal belt surrounding Prince William Sound and reaching into the northeastern part of the Kenai Peninsula.

Homesite tracts not to exceed five acres are available for patent in certain sections of the national forests. These tracts usually are near settlements, at desirable shore spaces, or at other spots of settlement pressure. Industrial and resort sites can be developed under special use permits.

SOIL CONSERVATION SERVICE
Palmer, Alaska

SCS furnishes technical assistance to farmers through the Alaska Soil Conservation District and its nine Sub-districts.

Assistance to farmers through the Sub-districts is similar to that offered in the States. Upon request, each farmer receives a soils map of his farm. The SCS helps him make a plan of development and management best suited to his land and farming experience.

The SCS, the Soil Conservation Board and the Bureau of Land Management are cooperating in soil surveys to determine the location and extent of agricultural lands and the methods of farming necessary to maintain these lands for permanent agriculture. By December 1955 over a million and a half acres of Alaska's land had been covered by surveys. These include the Matanuska Valley, Anchorage, the Kenai Peninsula coast south to the head of Kachemak Bay, Fairbanks and sections along the Richardson Highway to Big Delta. Soils information on these areas can be obtained from the District or from the Palmer office of the SCS.

Capitalization of farms in the States now exceeds $25,000 per farm worker. In Alaska—where costs are higher—a successful dairyman has more than $40,000 invested in land, equipment, animals, and buildings.

Land grants to the new State of Alaska will probably not be available for sale or disposition to farmers before 1960. The ALASKA DEPARTMENT OF LANDS, Anchorage, is the agency responsible for acquiring the lands granted to Alaska, and of distributing them to private ownership.

FARM HOME ADMINISTRATION
Anchorage, Alaska

Loans to eligible operators of full-time, efficient, family-type farms in Alaska are available through the Farmers Home Administration.

An applicant for loans must have had actual recent farm experience, and must have been reared on a farm or had agricultural training. He must plan to operate a full-time family-type farm that will provide enough business for him to earn a good living, pay farm and home operation expenses, pay for and maintain necessary livestock and farm and home equipment, and pay his debt. If he is a renter he must be able to get a lease that will let him carry out the recommended practices in his farm and home plan. Veterans receive preference on all loan services. Money is available for three types of loans:

1. Farm operating loans to buy livestock, equipment, feed, seed, fertilizer and needed farm and home operating expenses.
2. Farm ownership loans (a) to buy a family-sized farm (b) to buy additional land to bring an under-sized farm to a full-time economic unit, (c) to develop present inadequate farms by providing needed improvements such as land clearing or buildings, and (d) to construct or repair needed buildings.
3. Soil and water loans to pay the cash costs of making improvments directly related to soil conservation, water development, its conservation and use.

ALASKA AGRICULTURAL EXPERIMENT STATION
Palmer, Alaska

Agricultural research work in Alaska has been conducted jointly by the University of Alaska and the U. S. Department of Agriculture since 1947. Headquarters and major laboratories are in Palmer.

Station scientists adapt crops, techniques and materials to Alaskan conditions and test for adaptation those developed elsewhere. They conduct research in breeding new strains and varieties of crops. Current research concerns methods of storing grains, forages, potatoes, and vegetables; weed, insect and plant disease control; poultry and animal feeding and housing; dairy and beef breeding; soil characteristics and farm management; and marketing.

Reports and bulletins are published as research findings become available. Requests for technical information about specific agricultural problems are answered through the Extension Service.

AGRICULTURAL EXTENSION SERVICE, College, Alaska

District agents of the University of Alaska Extension Service work with urban people and with farmers and farm groups in defining problems in local farm production and marketing, and seeking solutions. They reside in Fairbanks, Palmer, and Homer. Home demonstration agents work with rural and urban families, 4-H and other club groups. They reside in Fairbanks, Palmer, Anchorage, Homer, Juneau and Ketchikan. Specialists who are part-time research technicians of the Experiment Station interpret research results for distribution to farmers.

ALASKA AGRICULTURAL STABILIZATION AND CONSERVATION COMMITTEE
College, Alaska

The Alaska ASC Committee, appointed by the Secretary of Agriculture, administers agricultural stabilization and agricultural conservation programs of the U. S. Department of Agriculture. The Alaska "State" office is at College.

Programs in Alaska at this time are (1) the National Wool Act which provides an incentive payment to wool growers, and (2) the Agricultural Conservation Program which shares with farmers the cost of soil and water conserving practices.

RURAL REHABILITATION CORPORATION, Palmer, Alaska

The Alaska Rural Rehabilitation Corporation is an Alaskan non-profit corporation originally organized to receive and administer funds for the establishment and operation of the Matanuska Valley Colony.

Farm loans are now made to qualified resident Alaskans. The repayment period will not usually exceed five years for real property improvements and three years for chattel property purchases. Interest rates on loans secured by a first real estate mortgage are usually four percent, while seed and fertilizer and other chattel loans are at six percent.

Other operations of the Corporation are concerned with land clearing, counselling of prospective settlers, and assisting cooperatives and individuals improving production, marketing and storage facilities in Alaska.

Residence on a part-time farm in the Matanuska Valley

Summary Crop Report For 1957 and 1958 Outlook

1957 was a year of subnormal production because of unusally dry, warm weather—only partially relieved in the lower Railbelt by late July and lasting through September in the Tanana Valley. Grasslands were hardest hit because of their heavier requirement for spring and early summer moisture. Approximately 1,300 acres of bromegrass winter-killed in the Matanuska Valley, requiring reseeding or substitution with annual crops. The value of commercial production was up only 5 % over 1956. At the same time the value of forage and grain for farm use went up 13% indicating a growing self-sufficiency.

MILK Production increased only 5½% over 1956, being slowed by poor pasture conditions and uncertain market outlook. Milk income accounted for 48½% of all commercial farm sales in Alaska. Production is expected to continue increasing, with prices to farmers going down somewhat during 1958.

POTATOES Yields were slightly above normal in the Matanuska-Anchorage area, and well below normal in the Tanana Valley, leaving Alaska's total crop at near normal levels. Total acreage was down 9%, tonnage down 5%, and crop value down 10% from 1956.

VEGETABLES In spite of dry weather which killed some early plantings, vegetable yields in most areas were near normal, with total production and value up over 1956 due to increased acreage. Market needs were well filled in most commodities—lettuce and cabbage surpluses were reported in Railbelt markets. The 1958 crop is not expected to vary greatly, although changed military procurement policies have increased the uncertainty of the market.

POULTRY AND EGGS Egg production in the Railbelt should increase some in 1958. The trend is to larger flocks for increased efficiency. Producers are continually facing the competition of Stateside eggs being sold by retail outlets as "loss leaders". Broiler and fryer production remained at low levels in 1957, and probably will not go up in 1958.

LIVESTOCK PRODUCTS Meat production increased during 1957 and is expected to do so again in 1958. Grain finishing is on the increase and should continue as greater grain production develops.

GRAIN Commercial grain production was up in 1957. It is expected to almost double in 1958. This has resulted from the building of drying and storage facilities. More farmers are looking to grain as cash crop, because production of milk and vegetables seems to be nearing present demand levels.

An original version of this bulletin was first issued by the Alaska Experiment Station in 1917. Authored by C. C. Georgeson, it was revised many times to meet changing needs. A 1945 edition titled "Information for Prospective Settlers" by G. W. Gasser, Territorial commissioner of Agriculture, was revised in 1948. This was followed by Bulletin 15 of the Alaska Agricultural Experiment Station compiled by Hugh A. Johnson.

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Assisting in this publication were the U. S. Department of Land Management, the U. S. Forest Service, the Soil Conservation Service, the Farmers Home Administration, the Agricultural Stabilization and Conservation Committee, and the Alaska Rural Rehabilitation Corporation.

A Joint Publication . . .

Territory of Alaska
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JAMES WILSON, Commissioner
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and the

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