
AGRICULTURE ON INDIAN RESERVATIONS.

(715)

AGRICULTURE ON INDIAN RESERVATIONS.

The census of 1900 recognized the progress of the American Indian in agriculture by making reservations units of tabulation, as distinct from counties. Except in the cases of a few tribes who have tilled the soil since the first approach of the white man, this progress has largely taken place within the last thirty years through the instrumentality of the Government, and even among the agricultural tribes, governmental supervision has greatly improved their economic condition.

In undertaking to educate the Indian and make him a self-supporting citizen, the Government has met with many obstacles which make the task a tedious one. One of the principal drawbacks to self-support through agricultural operations is the poor and unfavorably located land of many of the reservations. Some reservations were selected by the tribes as being a part of their old hunting ground; others were selected because no white man would desire the land, no thought then being given to the advantages and natural resources for agriculture. However, through the generous appropriations of Congress, the land has been greatly improved, and many of the arid tracts of the reserves have been reclaimed for cultivation by the construction of irrigation systems.

The natural tendency of the Indian is to lead a nomadic life, to fish, hunt, and gather roots and wild berries; the change to a pastoral and agricultural life, therefore, being so foreign to his nature, necessarily requires a degree of education and experience which can not be acquired in a single generation. Those who know the Indian best unite in recognizing his capacity for work and education. He has strength and endurance, and is reasonably industrious, but if he can not see an immediate return for his labor, is easily discouraged. Once convinced, however, that his efforts in tilling the soil will repay him, he is usually willing to work.

Indians, as a rule, live from hand to mouth and accumulate but little. The most difficult agricultural lessons for them to learn are to cultivate their crops, to feed and care for their stock properly, and to save enough seed for the next season's planting. They depend too much upon the Government to furnish the seed, and upon nature to do the work after the seed is once put into the ground. The agricultural machinery furnished by the Government is usually left to the elements, but that purchased with their own money is properly protected.

Notwithstanding the numerous difficulties, there has been steady progress toward civilization in the past decade on most reservations. A number of tribes are now peaceable, self-supporting agriculturists, wearing citizens' clothing, and able to speak the English language with sufficient facility to carry on ordinary conversation. It is necessary, however, to issue rations to the aged and feeble, even on reservations where the Indians are self-supporting, for it is a significant fact that among all tribes, no matter how prosperous they may be, the aged are often neglected even by members of their own families.

Two prominent factors in the advancement of the Indian are the Indian agent and the Government schools. The position of the Indian agent is one of great responsibility and opportunity, and, if the confidence of the Indians be once gained, his influence over them is very great. Under a wise, judicious, and energetic administration, progress may be rapid; but, on the other hand, a tribe will quickly retrograde if intrusted to the care of an indifferent agent.

The Government schools give the Indian youth an elementary education, teach them the dignity of labor, the necessity for exertion, and the advantages of taking up allotments and striving to become independent. The school farm, on which they are required to work a portion of the time, furnishes an opportunity for the boys to become familiar with the varieties of farm labor. In the industrial department they are taught to shoe horses, mend harness, and repair wagons and general farm machinery. The girls are trained in all domestic arts, including gardening and dairying.

This report aims to give a brief review of the resources of Indian reservations, and the present economic condition of the Indians thereon, and to record especially their progress in agriculture at the time the Twelfth Census was taken. The information concerning the area of the reservations and the conditions and progress of the Indian has been largely taken from the reports of the Commissioner of Indian Affairs, while the classification of tribes is that of the Bureau of American Ethnology. The agricultural statistics include the agricultural products of white men married into the tribe, Government employees, and lessees, in addition to those of the Indians, but, with the exception of a few reservations noted in the report, the totals are largely the result of Indian labor. The population statistics include all classes on the reserves, June 1, 1900. All reservations

reporting agriculture to the census are here mentioned. The discussion of these is supplemented by a brief treatment of the civilized, self-supporting Indians of New York and Indian Territory, as well as those of a number of other states which reported farms operated by Indians.

NORTH ATLANTIC DIVISION.

This division reported 366 farms operated by Indians. Of these, Maine had 5; Massachusetts, 22; Connecticut, 2; New York, 331; and Pennsylvania, 6.

Of those in Maine, 4 were in Penobscot county, and 1 was in Kennebec. These Indians are of Algonquian stock, and were doubtless descendants of the Penobscot tribe, a number of whose members are still living in the county of that name. They have not mixed with other people, to any great degree, and have retained many of the old customs, agriculture being generally neglected.

Of Indian farms in Massachusetts, 14 were in Dukes county, and 6 in Barnstable. The Indians operating them were descendants of the original stock of that region, those in Barnstable county being sometimes known as Mashpee Indians.

The two Indian farmers in Connecticut were in New London county. They are probably of the Mohican tribe; the few who are still found in this section consist mainly of fishermen and laborers, and give but little attention to agriculture.

In New York the 331 Indians operating farms were found in 8 counties. Erie county reported 132; Genesee, 77; Niagara, 45; Cattaraugus, 38; Onondaga, 31; Chautauqua, 5; Nassau, 2, and Oneida, 1. All of these are remnants of the old Six Nations, once powerful in that state.

The Iroquois, as they were collectively called, formed a strong confederacy. Because of this alliance, and because of their advancement in the arts of war and agriculture, they were able to reach a degree of prominence and influence never attained by the weaker tribes. Tradition says that the parent stock of the Iroquois came from the country north of the St. Lawrence River, and that they were in subjection there to the Adirondack Indians, whom they attempted to expel. Failing in this, they crossed over to the country south of the river and Lake Ontario, finally settled in the Mohawk Valley, and later emigrated to the westward. From time to time, bands withdrew to new locations, and thus were formed, probably in their order from east to west, the five tribes which came to be known as the Mohawk, Oneida, Onondaga, Cayuga, and Seneca. Comparatively late in the history of the league, the Tuscaroras were admitted as the sixth nation in this compact. This tribe claims descent from the original family of the Iroquois and was probably descended from a band which withdrew to the West before the body of the tribe had settled on the Mohawk River.

About the middle of the seventeenth century, an effort was made to bring the Iroquois into the church. Some of them were thus drawn away from the old tribes, and settled in the country lying to the north. These came to be known as the St. Regis Indians. On the determination of the boundary between the United States and Canada, most of them were left on the Canadian side.

The Iroquois stand out prominently in the history of the American Indians. Their industry and skill in agriculture were already marked when the whites first came in contact with them. Farming continues to be the principal occupation, though many of them are engaged in making baskets and bead work. As a class, they have made remarkable progress in the arts of civilization. It is probable that their progress has been retarded by the custom, increasing among them of late years, of leasing their lands instead of farming for themselves.

Pennsylvania reported 6 Indians operating farms, 4 of whom were in Warren county. They are doubtless descendants of "Cornplanter," a Seneca, who once established a branch of the tribe in that state.

SOUTH ATLANTIC DIVISION.

This division reported 935 farms operated by Indians. Of these, Virginia had 39; North Carolina, 868; South Carolina, 20; Georgia, 3; and Florida, 5.

The Indian farmers of Virginia were reported from 7 counties, of which King William reported 21 and Norfolk 12. The Indians operating farms in King William county are the remnants of the Pamunkey and Mattaponi tribes, and are of Algonquian stock. They were once the most powerful, and are practically the only survivors, of the old Powhatan confederacy. Those reported from Norfolk county are probably of allied origin.

North Carolina reported 868 farms operated by Indians who were mostly descendants of the Eastern Cherokee. The farms were in 14 counties, of which Robeson had 522; Swain, 156; Jackson, 90; Columbus, 41; Graham, 26; Scotland, 18; and 8 others from 1 to 5 each.

South Carolina contains the only reservation in the South Atlantic division. The greater number of the Indian farms of this state were reported from the Catawba reservation, a small state reservation consisting of 650 acres, situated in York county, in the extreme north central part of the state. The Catawba Indians, of Siouan stock, number 66, and operate 14 of the 20 Indian farms in the state. Some of them cultivate small patches of ground, and others cut and sell wood, or make pottery. All spend considerable time in hunting and fishing. They live in poor houses and eke out a mere existence, the state making a small appropriation to assist in their support.

Corn and cotton were the crops of the Indian farmers, whose cultivated areas ranged from 5 to 30 acres. Their live stock consisted of a small number of horses, mules, and cattle, although most of them possessed dairy cows, and reported a small amount of milk and butter, while a few owned swine and chickens.

The three Indian farmers reported in Georgia were probably of Cherokee origin, and the five in Florida were doubtless descendants of the Seminole tribe.

NORTH CENTRAL DIVISION.

Of the states of this division, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, and Kansas contain Indian reservations.

The Indian reservations in Wisconsin are the La Pointe, Menominee, Oneida, and Stockbridge. The Oneida, on the reserve of that name, were formerly a New York tribe, and have been an agricultural people for many years. They are self-supporting, the industrious among them being quite well-to-do. The Stockbridge, originally a portion of the Housatonic tribe of Massachusetts, are consolidated with the Munsee, also New England Indians. They are self-supporting, but take little interest in agriculture, although a few have good farms. By selling the timber on their reservation they secure a large part of the income necessary for their subsistence. The Menominee and Chippewa, on the Menominee and La Pointe reservations, respectively, derive most of their support from the sale of timber, although a few carry on agriculture on a small scale. The Menominee are still dependent upon Government rations for 20.0 per cent of their subsistence.

La Pointe, or Bad River, reservation is situated in Ashland county, in the extreme northern part of Wisconsin, and comprises an area of 194 square miles. The land is well adapted to agriculture, and the soil is very rich and produces abundantly when properly cultivated. There is also considerable timber on the reserve.

The Indians at Bad River are a portion of the Lake Superior band of Chippewa (Algonquian), with a population of 627. These Indians do not take much interest in agriculture, and it is extremely difficult to induce them to build permanent homes and go to work. They all have a splendid opportunity to till the soil, but as long as they can derive an income from selling their pine timber they will do very little farming. Annuity payments, derived from the sale of timber, furnish 50.0 per cent of their subsistence.

The Indian farmers at Bad River raised a crop of hay in 1899, consisting of clover and other tame grasses. All raised vegetables of some kind. The stock consisted principally of farm horses.

Menominee and Stockbridge reservations, embracing an area of 362 and 18.2 square miles, respectively, are

located in the northeastern part of Wisconsin, the former in Shawano and Oconto counties, the latter in Shawano county, adjoining the Menominee reservation on the southwest. Menominee is largely timbered with hemlock, pine, elm, maple, and other valuable woods. The arable land is fertile and yields large returns when properly cultivated. The lakes and streams on this reserve abound in fish. Stockbridge also contains much farming land in addition to timber land.

The Menominee (Algonquian) are an aboriginal Wisconsin tribe and have a present population of 1,487. Their principal occupations are lumbering and farming. Government rations still constitute 20.0 per cent of their subsistence.

The Stockbridge and Munsee tribes, of Algonquian stock, inhabit the reserve of the first named. These tribes originally lived in New England, but later moved to western New York, and thence to Wisconsin, where they are now consolidated and number in all 376. Those who attempted to cultivate the soil had excellent crops as a result of their labor, but most of them made little effort in this direction.

The principal crops raised on these two reserves were oats and corn, a few acres being sown to wheat, rye, and buckwheat. The hay crop consisted of clover and other tame grasses. All of the Indian farmers raised potatoes, and some had other garden vegetables. The majority cultivated from 10 to 50 acres each, and two had 110 and 130 acres, respectively, under cultivation.

Most farms were well supplied with work horses, many had dairy cows, and a few had beef cattle also. Among these farmers, chickens and swine were commonly raised.

Oneida reservation, now existing only in name, is situated in the extreme east central part of Wisconsin, in Brown and Outagamie counties. With the exception of a small tract set apart for school purposes, the entire area, 102 square miles, has been allotted. The land is generally adapted to agriculture.

The Oneida (Iroquoian) were formerly a portion of the Six Nations of New York, where they resided before they were removed to Wisconsin. Their population in 1900 was 1,704. They have long been a self-supporting, agricultural people, and all of them are engaged in farming, their farms being well cultivated, improved with good buildings, and well supplied with implements and live stock.

Their principal crops were oats, wheat, and corn, in the order named, while small quantities of rye, buckwheat, and barley were also raised. Nearly all planted potatoes, but other garden vegetables were not reported. A few have small orchards of apple, plum, and cherry trees. The majority of Oneida farmers cultivated from 3 to 60 acres each, their proximity to several large cities affording an excellent market for all farm products.

The live stock of the Oneida consisted principally of farm horses, of a good American grade, and dairy cows. Chickens and swine were found on most farms.

The reservations of Minnesota reporting agriculture are Red Lake, White Earth, and Winnibigoshish. Red Lake and White Earth have plenty of good agricultural and grazing land. Many of the Indians have made fair progress in farming, and a few raise considerable live stock. The mixed bloods at White Earth own farms, some of which are as large and as well managed as those of their white neighbors. Winibigoshish has little cultivable land, but many of the Indians raise small patches of potatoes among the timber.

The reservation Indians of Minnesota, with the exception of a band of Sioux, are the Chippewa (Algonquian), of which there are a number of different bands. They are practically self-supporting, the aged and infirm alone receiving aid from the Government. Those bands which have little opportunity to cultivate the soil, subsist on fish, game, wild rice, and berries. Logging is carried on to a considerable extent, and they also make large quantities of maple sugar.

Red Lake reservation, located in the northwestern part of the state, in Red Lake and Beltrami counties, comprises an area of 1,250 square miles. The land is a rich prairie, dotted with groves of timber, and is well adapted to agriculture. The abundant supply of water and growth of blue joint grass provide a splendid opportunity for stock raising.

The Chippewa at Red Lake are the Red Lake and Pembina bands, the total population of the reserve being 1,450. During the last few years great progress has been made in agriculture among these Indians, the timber industry recently started near them having created a market for grain, hay, and vegetables. As a consequence, their acreage under cultivation has greatly increased, and all activity along the line of civilized labor has received a decided stimulus. Fish provide a large part of the subsistence of many of these Indians, but they also make large quantities of maple sugar, some farmers reporting from 400 to 800 pounds in the last census year. They are practically self-supporting, rations being issued only to the old and destitute, while annuity payments furnish but 10.0 per cent of their subsistence.

The Indian farmers raised small patches of corn, oats, potatoes, beans, and miscellaneous garden vegetables, and, in addition, cut considerable wild hay. The acreage cultivated by the majority ranged from 3 to 10 acres each, while they cut from 5 to 40 acres each of the wild prairie grass. The best farms lie along the Red Lake River. Stock raising could be made a most profitable adjunct to their present agricultural operations.

White Earth reservation, embracing an area of 1,099

square miles, is situated in the northwestern part of Minnesota, in Norman, Beltrami, and Becker counties. The western portion of the reserve contains a large tract of rolling prairie land, with a deep, rich soil, which is very productive. There is also an abundance of wild meadow land, well watered by lakes and running streams. The eastern portion consists principally of timber land.

The Chippewa here located were of the Mississippi, Gull Lake, Pembina, Ottertail, and Pillager bands, having an aggregate population of 3,486. These Indians have made good progress toward civilization. Agriculture is their principal occupation, and the acreage under cultivation increases with each succeeding year. The best farms are owned by the mixed bloods, many of whom are practically civilized, while many of the full bloods cultivate but small areas, and depend upon game, fish, wild rice, and berries for their subsistence. They gather and sell large quantities of snakeroot, blueberries, and cranberries in season, in addition to making considerable maple sugar. The White Earth Indians are practically self-supporting, rations furnishing but 2.0 per cent of their subsistence, and annuity payments but 2.0 per cent.

The principal crops of the farming class are wheat, oats, and flax; but they also raise small quantities of barley and corn. Flax is a favorite crop with these Indians, and brings a good price. Hailstorms did considerable damage to White Earth farms in the census year, several farmers having their entire crops of cereals destroyed. They cut large areas of the wild prairie grass, and some cultivated small patches of potatoes and garden vegetables. The farms of many of the mixed bloods compared favorably with those operated by white farmers, having an acreage under cultivation ranging from 75 to 355 acres each. Most full bloods cultivated from 5 to 30 acres each.

Stock raising is not carried on extensively, although most farmers have a few cattle.

Winnibigoshish reservation, located in Itasca county, in the north central part of the state, contains an area of 198 square miles, of which 22 square miles have been allotted. The land is not suitable for agriculture; a large portion of it bordering on the lake, and being valuable principally for the timber.

The Winnibigoshish Chippewa, like their neighbors, the Leech Lake and Cass Lake bands, have little opportunity to carry on agriculture, but here and there among the timber they have planted small patches of potatoes and other vegetables. Fish, wild rice, and berries constitute their principal food products. They gather and market large quantities of blueberries, cranberries, raspberries, and plums, and also make maple sugar. The band is practically self-supporting, rations forming but 5.0 per cent of their subsistence.

The Sac and Fox reservation is located in Tama county, in the east central part of Iowa. This tract is a reserve only in name, as it is owned in fee by the Indians and held in trust for them by the Secretary of the Interior. The first purchase was made in 1859, and from time to time subsequent purchases have been made through their agents, until the present area comprises 4.5 square miles. The land consists of river and creek bottoms with adjacent timbered bluffs. A large part is bottom land of the Iowa River, with a deep, black, loam soil, very productive when properly cultivated.

This band of the Sac and Fox (Algonquian stock) has a population of 385. They are classed as among the most conservative and nonprogressive Indians in the United States. Although they have lived in the midst of civilization for nearly half a century, yet, on the whole, they may still be called "blanket Indians." The state held jurisdiction over them until 1896, when the United States assumed control of the land. A few, more industrious than the rest, till the soil, and are making good progress in agriculture, as is clearly manifested by extensive purchases of modern farming implements and machinery, and of a better grade of horses, as well as by the care which they give their live stock. Formerly all agricultural implements were owned in common, but this system worked very poorly, and now individual farmers are beginning to supply themselves. Annuity payments still furnish 50.0 per cent of the tribal subsistence. The principal crops were corn, wheat, and oats, while most farmers had small gardens in which they raised potatoes, pumpkins, sweet corn, and beans. A few raised tame grasses and also cut the wild grass. In the census year the majority of the Indian farmers cultivated from 5 to 30 acres each, the largest single area being 48 acres. These small tracts were not allotments, yet the right of occupation is recognized as long as individuals continue to cultivate the land.

The live stock of the Sac and Fox consisted principally of ponies and work horses. Previous to 1898 their horses were allowed to range throughout the entire winter without being supplied with food or shelter, but they have since been induced to care for their animals during severe weather at least, and consequently have a marketable surplus as contrasted with decreasing numbers in former years.

North Dakota has four reservations: Devils Lake, Fort Berthold, Standing Rock, and Turtle Mountain. The larger portion of Standing Rock reservation lies in South Dakota, but as the agency is located in North Dakota, the reservation has been reported in that state. Agriculture is very uncertain on these reserves on account of the hot winds and irregularity of rainfall during the summer months. The land is best adapted to stock raising. Fort Berthold and Standing Rock have

extensive ranges and hay lands, and this occupation is receiving most attention where it is practicable. The census year was favorable for agriculture among North Dakota Indians, and fair crops were raised on all reservations.

Devils Lake reservation, embracing an area of 360.4 square miles, is situated in the northwestern part of the state, in Benson and Eddy counties. The land is high and rolling, adapted to mixed farming, especially near the Cheyenne River and Devils Lake, where it is well watered. Hay lands are plentiful, while the river and lake shores are sparsely timbered.

The Indians on this reserve are the Assiniboin Cuthead, Santee, Sisseton, Yankton, and Wahpeton Sioux, all of Siouan stock, having a population in 1900 of 1,268. They are peaceable and law-abiding, and are, moreover, hard working. Failures of crops have been so frequent in recent years that many do not cultivate the soil as extensively as they otherwise would. The hay crop, however, is very extensive, and would support large herds of cattle. Government rations constitute 25.0 per cent of their support.

Flax and wheat were the most extensive crops on this reserve, oats, barley, and corn being raised to some extent. Wild grasses furnished the entire supply of hay, the crop being larger than they could care for with the implements at hand. Nearly all Indian farmers cultivated small areas of potatoes, and a number also raised beans and other garden vegetables. The majority of the Indian farmers cultivated from 20 to 80 acres each. But few of them had any cattle.

Fort Berthold reservation is located in the west central part of North Dakota on the Missouri River, and comprises an area of 1,508 square miles. This country is well adapted to stock raising, the upland prairies furnishing ample range throughout the year, and the grasses being among the most nutritious grown anywhere. On account of the hot, dry winds and irregular rainfall, agriculture is too uncertain to be carried on extensively, yet the land is fertile, and in seasons of sufficient rainfall, produces good crops.

Three bands of Indians inhabit this reserve, the Arikara (Caddoan), Grosventre, and Mandan, all of Siouan stock, with a total population of 1,038. They have always been peaceable, and agriculture has been carried on by them to some extent for many years. The majority are industrious and anxious to improve their condition. Those of the younger generation are progressing steadily and manifest greater ambition to become self-supporting. Stock raising is their principal occupation, but they cultivate the soil to some extent, although on account of frequent droughts they seldom harvest more than is required for home consumption. Government rations still provide 60.0 per cent of their subsistence.

The three years preceding 1899 were so discouraging that some Indians at Fort Berthold did not plant their

usual crops in the census year, although that season proved favorable. Of the cereals, wheat and corn were raised most extensively, while many farmers also sowed oats. Wild hay was cut in large quantities. Nearly all had several acres of potatoes under cultivation, in addition to small tracts of melons, onions, beans, pease, cabbages, and other vegetables. The majority of the farmers cultivated from 5 to 40 acres each, besides cutting large areas of prairie grass. Stock raising is growing in interest and importance, and will eventually furnish the entire support of these people.

Standing Rock reservation, reported in North Dakota, lies within both of the Dakotas, on the west bank of the Missouri River, and contains an area of 4,176 square miles, of which approximately three-fifths is in South Dakota. The land is best adapted to stock raising, or to mixed farming, the hay lands being extensive and the wild grass very nutritious. Although the soil is a deep, rich loam, general agriculture is impracticable, as the hot winds of summer and the irregular and insufficient rainfall often prevent the maturing of crops.

This reserve is the home of the Blackfeet, Hunkpapa, and Lower and Upper Yanktonai bands of the Sioux, numbering in all 3,866 in 1900. They have begun to realize that their support must eventually come from their cattle, and they give them great care, stock raising being even now their principal pursuit, although most of them grow a few small crops in addition to cutting large quantities of wild grass. The cereals planted each year rarely yield more than the seed sown.

The season of 1899 was a favorable one on the Standing Rock reservation, and the Indians harvested considerable corn and oats, individual acreages in these crops being very small, usually from 2 to 10 acres. As vegetables do well, nearly all farmers raised potatoes, and many had small fields in melons, pumpkins, pease, beans, and onions, and a few grew sugar beets, which are well adapted to the soil. Wild hay was, however, their most important and extensive crop. The improved acreage of the majority of the Indian farmers ranged from 5 to 40 acres each.

Most Indian farmers have made a start in stock raising, while some already have considerable herds. Their herds do not, however, increase rapidly, owing to the use of a considerable number of animals each year for food. For the most part, Indian ponies constitute their wealth in horseflesh, although some have horses of better grade.

Turtle Mountain reservation, the home of the Turtle Mountain Chippewa, is situated in Rolette county, in the extreme north central part of the state, and contains an area of 72 square miles. Less than one-third of this tract is cultivable, as lakes and timber land constitute a large part, while the southern half is a rolling prairie, whose surface is rough and stony, containing little good farming land. Crops are often a failure on account of extreme drought.

This band of the Chippewa, (Algonquian), locally called Turtle Mountain Chippewa, numbered 2,393, only a small per cent being full bloods, while some have more French Canadian than Indian blood. They are energetic and industrious, having labored faithfully to cultivate the soil, but innumerable failures of crops have proven discouraging and kept them in poor circumstances. The timber supply is their only resource when crops fail, and this is rapidly decreasing. The number of Indians is too large to find subsistence on the reservation, and many have taken up claims beyond the borders. Government rations constitute but 25.0 per cent of the support of this band.

The most extensive crop of the Turtle Mountain Indians was wheat, but oats, barley, and flax were also quite generally raised. Nearly all Indian farmers raised potatoes, but no other vegetables were reported. The season of 1899 was a favorable one, and all crops did well. The majority of the Indian farmers cultivated from 20 to 80 acres each. Nearly every farmer had a few cattle in addition to his ponies and work horses, some of the latter being of a good grade, but none of them owned any considerable number of range cattle, or raised beef for the market.

South Dakota is the present home of a large portion of the great Sioux nation, all reservation tribes, who with the exception of a band of Northern Cheyenne (Algonquian) at Pine Ridge, are of Siouan stock. The reserves within the State are: Cheyenne River, Crow Creek, Lower Brulé, Pine Ridge, and Rosebud. Stock raising, to which their lands are best adapted, is the principal occupation of these Indians. The South Dakota Sioux are still dependent upon Government rations for at least one-half of their subsistence, although the issue of rations is being gradually decreased.

Cheyenne River reservation, having an area of 4,481 square miles, is located in the north central part of South Dakota, the Missouri and Big Cheyenne rivers forming its eastern and southern boundaries, respectively. When used for grazing purposes the land yields large returns, but it is not adapted to agriculture, as the rainfall is too light and irregular, and irrigation is impracticable.

The Indians at Cheyenne River number 2,357, and consist of the Blackfeet, Miniconjou, Sans Arcs, and Two Kettle Sioux, these bands having intermarried to such an extent that it would be impossible to report them separately. Stock raising is their principal occupation, and there is scarcely an Indian on the reserve who does not own some ponies or cattle. The Indians need instruction in the care of their stock, as they usually allow their animals to range throughout the year without feed or attention, although many now put up enough wild hay to feed their stock during severe weather.

All the live stock of the reservation was included in one report, which showed a total of 32,181 head, valued

at \$668,830. Of the total 13,867 were Indian ponies and horses, with a value of \$234,250, while the remainder consisted of range cattle. Many Indians now own no stock but these ponies, the raising of which brings little or no profit.

Crow Creek reservation is situated in the south central part of South Dakota, on the east bank of the Missouri River, in Buffalo, Hyde, and Hughes counties, and contains an area of 446 square miles. The reservation is particularly adapted to stock raising, as there is good grazing throughout the year. Some efforts have been made to till the soil, but the prevalent hot winds and insufficient rainfall prevent a harvest.

The Indians at Crow Creek are bands of Lower Yanktonai, Lower Brulé, Miniconjou, and Two Kettle Sioux. They have large herds of ponies and consider them of more value than cattle. A few of the Indian farmers succeeded in harvesting small crops of wheat and corn, notwithstanding the poor season, but the majority had nothing but small quantities of wild hay.

The Lower Brulé reservation comprises an area of 737.5 square miles, and is situated in the south central part of the state, in Lyman and Stanley counties, the Missouri River separating it from Crow Creek reservation. The land is not adapted to farming, and, although repeated attempts have been made to cultivate the soil, they have usually met with failure. Stock raising, however, can be carried on quite profitably. The population of the reserve was 517, consisting of the Lower Brulé and Lower Yanktonai. They are now anxious to sell a portion of their reservation to the Government, in order to purchase cattle. They receive in rations 60.0 per cent of their support, while annuity payments furnish 2.0 per cent more. In the census year a few of the Indian farmers succeeded in raising a small crop of corn, while others had only the wild hay, the majority cutting from 5 to 20 acres each.

Pine Ridge reservation is located in the southwestern part of South Dakota, adjoining the Rosebud reservation on the west, and contains an area of 4,930 square miles.

A band of Northern Cheyenne (Algonquian) and the Brulé and Oglala Sioux residing at Pine Ridge, had a population, in 1900, of 6,827. Stock raising is their principal occupation, and the interest manifested in this industry is rapidly increasing, many having already become competent cattlemen. Recently an association was formed to protect their brands, to exterminate wolves, and for other mutual benefits. At several districts on the reserve the Indians receive but 50.0 per cent of their subsistence from Government rations, while, at others, practically their entire support is provided.

The only crops cultivated by the Indians during the census year were potatoes, melons, and other garden vegetables, although the mission school succeeded in harvesting a small crop of corn. However, they cut 13,490 acres of wild grass, yielding one ton to the acre.

They are well supplied with live stock, the total number being 61,880, with a value of \$1,510,215. Of this number 40,569 were range cattle, 20,434 were Indian ponies, and 723 were dairy cows.

Rosebud reservation, embracing an area of 5,044 square miles, is situated in the extreme south central part of South Dakota, the state line forming the southern boundary. As is the case with all other South Dakota reserves, the land is better adapted to stock raising than to agriculture, although, in some localities, farming on a small scale can be pursued with favorable results.

The Indians at Rosebud are the Loafer, Miniconjou, Northern Oglala, Two Kettle, Upper Brulé, and Wazhazhe Sioux, numbering, in all, 5,201 in 1900. They are making considerable progress in stock raising, with the exception of the older Indians, who do not take much interest in the industry. Some who are favorably located also plant small crops of grain and vegetables. Government rations constitute 70.0 per cent of their subsistence.

Small patches of corn and wheat were harvested by a few of the Indian farmers, the others having only their crops of wild hay, of which the majority cut from 5 to 40 acres each. Most families have a small herd of range cattle in addition to their horses and ponies while some also possess dairy cows.

In Kansas the only reservations still intact are the Kickapoo, Potawatomi, and Sac and Fox. The products of the Iowa Indians, whose lands have been entirely allotted, were reported with the Sac and Fox reservation. These tracts are situated in the midst of the corn belt and contain much rich agricultural land.

The Kansas Indians have made considerable progress in civilized life, the homes of many comparing favorably with those of their white neighbors, and they are provided with cooking utensils, furniture, and other modern conveniences. Agriculture and stock raising are their principal occupations. With excellent land and plenty of horses, wagons, and agricultural implements, they have every inducement to become good farmers, but in this respect they are making no advancement as a class. The system of allowing Indians to lease their lands is accountable in a great measure for their lack of industry, as their incomes from annuity payments and land rentals allow many of them to live in idleness. Some of them, however, have tilled the soil industriously and are steadily increasing their acreage under cultivation.

Kickapoo reservation is located in the extreme northeastern part of Kansas, in Brown county, and contains an area of 32 square miles, more than half of which is allotted. Practically all of the land is suitable for either agriculture or grazing, although not so fertile as that of the Sac and Fox.

The Kickapoo (Algonquian) in Kansas constitute but a branch of that tribe, the remainder, called the Mexi-

can Kickapoo, on account of their withdrawal into Mexico during the Civil War, being now allotted in Oklahoma. The population of the reserve was 566. Corn and wild hay were the crops of the Kickapoo. A few Indians had potatoes and other vegetables, but gardens were not generally reported. The majority of the Indian farmers cultivated from 20 to 80 acres each. Their live stock comprised a few work horses, mules, and cattle, while some Indians owned dairy cows, but reported neither butter nor milk. Annuity payments constituted 85.0 per cent of their subsistence.

Potawatomi reservation is situated in the north-eastern part of Kansas, in Jackson county, and contains an area of 121 square miles, the larger part of which is allotted. One-half consists of creek bottoms and sloping hillsides, with a rich soil suitable for cultivation, while the remainder is well adapted to grazing, the native prairie grasses affording excellent pasturage.

The Potawatomi (Algonquian) on the reservation are known as the Prairie band and numbered 1,011. They are quite civilized and well to do, but since the practice of leasing their lands was inaugurated very few of them are industrious. Annuity payments constitute 75.0 per cent of their support. The principal crops of the Potawatomi were corn and hay, most of the latter being made from fine native prairie grasses, while a few raise alfalfa and other tame grasses. The acreage cultivated by the majority of Indian farmers ranged from 50 to 150 acres each.

The Potawatomi are well supplied with good horses, cattle, swine, and chickens. A few have large herds of range cattle and derive an income from the sale of live stock. Dairy cows are common among them and the majority reported the production of milk.

The reserve of the Sac and Fox of the Missouri is located in the extreme northeastern part of Kansas, in Brown county, and extends into Nebraska. The total area embraces 12 square miles, of which the greater part is allotted. The former Iowa reservation, now completely allotted, adjoins that of the Sac and Fox, and the agricultural statistics of the Iowa Indians have been consolidated with those of the former. These two tracts comprise a fine body of agricultural land which is very productive, being situated in the midst of the corn belt.

The Sac and Fox of the Missouri (Algonquian) and Iowa, of Siouan stock, have been friends and neighbors for many years. The total population on the two reservations is 449, of which about three-fourths are Indians. The majority have leased their lands and are content to live on the income derived therefrom and from annuity payments. Most of them are well equipped with implements and farm machinery, while many have comfortable homes. The Sac and Fox receive 55.0 per cent of their support from cash annuity; the Iowa, 45.0 per cent.

Corn was the principal crop raised by these Indians,

although a few had wheat and oats. The larger number had small vegetable gardens in connection with their farms, as well as orchards of apple, plum, and cherry trees, and a few raised grapes. Their hay crop consisted of both wild and tame grasses. All possessed good American horses, while most of them had a small number of cattle, in addition to swine and chickens. Nearly all the Indians reported small sales of live stock, and a few also reported milk and butter.

Five of the states of the North Central division, though containing no Indian reservations under the immediate supervision of the General Government, reported 620 farms operated by Indians: Ohio had 2; Indiana, 19; Michigan, 347; Missouri, 3; and Nebraska, 249.

One of the farms reported from Ohio was in Meigs county and the other in Paulding. Numerous tribes at different times lived in these regions, but data are not at hand to indicate from which tribe the operators of these farms are descended.

The Indians operating farms in Indiana are practically all descendants of the Miami tribe, of Algonquian stock, and exhibit a good degree of skill and industry in agriculture. Nine of them were reported from Miami county, and the other ten were in five different counties.

Michigan reported 347 farms operated by Indians, and located in 17 different counties. Of these, Leelanaw county reported 69; Isabella, 51; Oceana, 23; and the others from 1 to 16 each. Most of the operators of these farms were descendants of the Chippewa, though among them were also a number of Potawatomi and Huron.

Missouri reported three Indians operating farms in as many counties. A number of tribes have at different times inhabited those regions and it is difficult to trace the tribal origin of these three families.

Nebraska reported 249 Indian farmers in four counties, as follows: Thurston, 123; Knox, 121; Cuming, 3; and Burt, 2. Those in Knox county were Santee Sioux, and those in Thurston were Omaha and Winnebago; of Siouan stock.

SOUTH CENTRAL DIVISION.

The Indians of Oklahoma represent several linguistic stocks, and many different tribes, having been collected from adjoining states and even remote regions. The Kiowa, Comanche, and a small band of Apache were the only native tribes of this locality when the Twelfth Census was taken. The lands of the following bands had been allotted and the surplus opened to settlement: Cheyenne and Arapaho, Iowa and Tonkawa, Mexican Kickapoo, Tonkawa and Lipan, Pawnee, Shawnee and Potawatomi, Ottawa, Sac and Fox of the Missouri, and Sac and Fox of the Mississippi. There were still six reservations intact: Osage, Kaw, Ponca, Otoe, Wichita, and Kiowa and Comanche. The last two have since been allotted and thrown open. Much of the Indian land is suitable either for agriculture or grazing, and many Indians have made slow but steady progress in the

development of their allotments; but the influx of settlers has had a retarding influence. Annuity payments and the returns from leased land have allowed many to live in idleness, and general retrogression has been the result.

The Osage reservation, embracing an area of 2,297 square miles, is situated in the extreme northeastern part of Oklahoma. Kaw reservation, which adjoins it on the northwest, was formerly a portion of the Osage reservation, and contains 156½ square miles. The land included in these tracts was originally purchased by the Osage from the Cherokee of Indian Territory. That portion lying along the river bottoms, especially of the Arkansas River and in the smaller valleys, constitutes a fine body of farming land, while the prairies and uplands, with abundant prairie grass, afford excellent grazing.

The Osage (Siouan) are physically the largest and also the wealthiest Indians in the United States. The population of their reservation was 6,717, of which only about one-third were Indians. Farming and stock raising have been their only occupations, but having an income sufficient for their needs, they put little energy into agriculture, the majority preferring to live in villages surrounded by comfort, idleness, and dissipation. Their annual incomes from annuity payments, and from farm and grazing leases, amount to over \$200 per man, woman, and child. Nearly every family has one or more farms rented to white men. Annuity payments furnish 92.0 per cent of the support of the Osage.

The Kaw or Kansa, also of Siouan stock, are no more progressive than their neighbors, although they work to some extent, as their annuities are much smaller. Most of their farms are rented out, and as a tribe they live in idleness and dissipation, although there are some notable exceptions. The total population of the reserve is 768. Annuity payments constitute 75.0 per cent of their support.

Corn and wheat are the principal crops of the Osage and Kaw reservations, and wild hay is cut in large quantities. Some farmers also raise Kafir corn, millet, and Hungarian grasses, and a few have small areas in sorghum cane. A number grew potatoes and small fruits, but vegetable gardens were not common. Orchards of apple, peach, pear, plum, and cherry trees are quite common among these Indians, and a few cultivate the grape. No allotments have been made on either reservation, and several intelligent Indians have taken advantage of this fact to occupy extensive tracts of land and enjoy the profits from its cultivation. Most of them are well supplied with horses and cattle, and many also own mules.

Ponca and Oto reservations are situated in Noble county, in the northeastern part of Oklahoma, and contain 159 and 201½ square miles, respectively. The greater part of the former, and more than one-half of

the latter, have been allotted. About nine-tenths of the Ponca and eight-tenths of the Oto reserve are cultivable, the land being largely prairie, with a rich, well-watered soil, peculiarly adapted to wheat raising.

The Ponca, of Siouan stock, are agriculturists, but as long as they are allowed to lease their lands few of them have any desire to labor, and idleness, with its attendant evils, has caused them to retrograde. The only perceptible progress seems to be in house building and repairing. The population of the reservation in 1900 was 1,537, of which slightly more than one-third were Indians. Annuity payments constitute 85.0 per cent of their support.

The Oto and Missouri (Siouan), who inhabit the Oto reservation, have lived together for many years. They are now a consolidated tribe, and are commonly spoken of as the Oto, which is the more numerous band. There has been very little advancement among these Indians. They own houses, good land, and have had instruction in agriculture, but when, by leasing their land, they can secure money enough to provide subsistence, there is little inducement to labor. Annuity payments furnish 80.0 per cent of their support.

The crops of the Ponca, Oto, and Missouri were corn and wheat. Their hay consisted of the wild prairie grass, of which they cut large quantities, and some also cultivated small patches of potatoes. The majority of Indian farmers cultivated from 15 to 30 acres each. They owned no cattle, their live stock being confined to work horses, a few raising swine and chickens.

Wichita, Kiowa, and Comanche reservations¹ are located in the extreme southern part of Oklahoma, and adjoin the Chickasaw nation on the west. Wichita, the more northern of the two, comprises an area of 1,162 square miles, while Kiowa and Comanche contain 4,639 square miles. This is the most extensive grazing section of Oklahoma, embracing broad, well-watered prairies covered with native grasses. Walled valleys among the Kiowa Mountains also furnish an excellent winter range, and large areas of grazing land are leased to white cattlemen. This tract is not generally adapted to cultivation, although fine farms are found along the streams and bottom lands. The prevailing hot winds of summer and the uncertainty of rainfall are great drawbacks to successful agriculture. Though the soil is well suited to the growth of cotton, very little of it has ever been utilized for this purpose.

The Wichita (Pani Caddoan), with a few small bands of affiliated tribes, live on the reservation bearing that name. They are peaceable and more industrious than their neighbors, the Kiowa and Comanche, having been largely dependent upon their own efforts for support. The population of the reserve was 1,420, and of this number slightly more than one-third were Indians.

The Kiowa (Kiowan), Comanche (Shoshonean), with a

¹ These reservations have since been allotted and opened to settlement.

small band of Apache (Athapascan) and Delaware (Algonquian), inhabit the Kiowa and Comanche reservations. Advancement and industry are manifesting themselves among these Indians, but only in a small degree. Of the total population of the reserve, 4,968, or about two-thirds, were Indians. Agriculture and stock raising are their principal industries. Some who raise cattle are now able to support themselves on the returns from their sales of live stock. Government rations provide 22.0 per cent of their support and annuity payments 70.0 per cent.

Corn was the principal crop of these Indians, and some also raised wheat and oats. Their crop of hay and forage consisted of prairie grass, millet, and Kafir corn. The latter will mature on the uplands, where the drought would kill Indian corn, and is considered excellent forage. Some reported small areas in sweet potatoes, melons, and sweet corn, but garden vegetables were not generally raised. The majority of the Indian farmers cultivated from 10 to 70 acres, while a few had over 100 acres in cultivation. Considerable interest is taken in stock raising, especially by the Comanche. All Indian farmers own a small amount of range cattle, although but few have dairy cows. A number are exclusively engaged in this industry and have acquired large herds.

Indian Territory reported 5,957 farms operated by Indians. These constitute 13.1 per cent of all farms in the territory. The relative importance of the tribes with respect to agriculture may be roughly measured by noting the number of Indian farms reported for each nation, as follows: Cherokee, 2,883; Choctaw, 1,328; Creek, 792; Chickasaw, 616; Seminole, 225; Quapaw and Peoria, 54; Seneca and Wyandotte, 35; and Modoc, Shawnee, and Ottawa, 24. The Cherokee, Choctaw, Creek, Chickasaw, and Seminole are generally known as the Five Civilized Tribes of the Indian Territory. They occupy the greater part of the territory and operate more than 98 per cent of the Indian farms. Nearly half are operated by the Cherokee.

In 1829 the territory was set aside for the use of the Indians, one tribe, the Creek, having been removed to that country in 1827. During the thirties many of the Indians east of the Mississippi were removed to the western country, and later concentrated in this territory. The Seminoles were taken there from Florida in 1846.

Besides the five nations there are a number of remnants of other tribes, some of which were once large and powerful. The most prominent of these are three of Algonquian stock, the Ottawa, Peoria, and Shawnee; two of Iroquoian stock, the Seneca and Wyandot; and the Modoc, of Lituianian stock, who, in 1875, were removed from the lava-bed country in northern California and placed upon a small reservation in the territory. These minor bands are grouped together in the extreme north-eastern corner of Indian Territory.

In addition to the Indian farms in Oklahoma and Indian Territory, the states of the South Central division reported 482 farms operated by Indians. Of these Kentucky reported 11, Tennessee 12, Alabama 14, Mississippi 328, Louisiana 62, Texas 51, and Arkansas 4.

Of the 11 Indian farmers in Kentucky, Magoffin county reported 7, and 4 other counties 1 each. Those of Magoffin county were descendants of the Cherokee, 6 of them bear the same family name, and the other is related to them by blood. Those in the other counties also are probably Cherokee.

Tennessee reported 12 Indian farmers in 9 counties. These are doubtless of Cherokee origin, though they are of mixed blood, as are most of the small bands of Indians east of the Mississippi River.

Alabama reported 14 Indians operating farms in 4 counties. They are remnants of the Creek, Cherokee, and Chickasaw tribes, that once dwelt in that State.

Mississippi reported 328 Indians operating farms in 17 counties. Neshoba county reported 105, Newton 76, Leake 51, Kemper 25, Scott 23, and 12 other counties from 1 to 13 each. The greater part of these Indians are of Choctaw descent. This is true particularly in those counties lying north of the old Choctaw line, which ran through Jasper county in a general direction from northwest to southeast. In the counties lying south of this line, it is possible that a small number of Indians are descendants of the Chickasaw.

Louisiana reported 62 Indian farmers. They were of mixed blood, but the greater part of them were descendants of the old Alabama Indians.

Texas reported 51 Indian farmers, most of whom claim descent from the Alabama Indians of a century ago.

Arkansas reported four farms operated by Indians. Of these Jefferson county had two and Cleburne and Howard one each. No data are at hand to determine the tribal origin of the operators of these farms.

WESTERN DIVISION.

All the states and territories of this division contain Indian reservations.

Montana, once a famous Indian hunting ground and battlefield, is now the quiet home of many tribes, all of which are slowly adopting the customs and occupations of the white man. Here are found the Piegan, Crow, Flathead, Sioux, Assiniboin, Grosventre, Northern Cheyenne, and a few small bands of other tribes, all collected on the following six reservations: Blackfeet, Crow, Flathead, Fort Belknap, Fort Peck, and Northern Cheyenne.

More than half the subsistence of the Montana Indians is obtained from Government rations. Their principal occupations are agriculture and stock raising. The latter receives considerable attention, as all reserves

have fairly well-watered ranges; the former is given but little attention except by the Crows, who have an adequate system of irrigation. Fish and game contribute to the support of many tribes.

Blackfeet reservation, the most northern of all, is located in the northwestern part of Montana and contains an area of 2,750 square miles. The land consists principally of foothills, valleys, and rolling prairies naturally adapted to grazing. In this high altitude the seasons have proven too short for successful agriculture, although there are a few sheltered spots where, in favorable seasons, vegetables and some cereals will mature with irrigation.

The Indians here were the Piegan, with a few Blood and Blackfeet, all of Algonquian stock, numbering 2,256. Piegan is the name given to the American portion of the Blackfoot Nation, the other tribes residing in Canada. The Piegan are tractable, industrious, and disposed to advance. Stock raising is their principal occupation and will eventually be their means of support. The money paid them for the cession of the mountainous portion of the reservation has been of material assistance in improving their surroundings. Those who own cattle have roomy and comfortable sheds to protect the stock in severe weather. Fish and game are plentiful and, to a large extent, supplement rations, although Government rations still furnish 50 per cent of their subsistence.

Irrigation on this reserve has been neither systematic nor scientific. Here and there the Indians, with the assistance of an engineer to run the lines, have done considerable ditch work. Many of these ditches are out of repair, while others are entirely worthless. The necessity for scientific irrigation grows more apparent each year, as the wild grasses are gradually becoming shorter and thinner, and it is only a question of time when all hay lands will require irrigation to assure a good crop.

The farming operations of this reservation consist principally in cutting wild hay for feeding purposes. The crop in the census year was short, on account of heavy and continued rains during the haying season. On the school farms and some protected tracts, the attempt to raise vegetables, wheat, and oats has proven successful in favorable years.

The Crow reservation,¹ comprising an area of 5,475² square miles, is situated in the extreme southern part of Montana, the state line forming its southern boundary. This region is subject to long periods of dry weather, and irrigation is necessary for successful farming. The valleys of the Big Horn and Little Horn contain extensive areas of rich agricultural land, to which an abundant supply of water is easily con-

veyed. The range also is of exceptionally good quality, bench lands affording excellent grazing facilities.

The Indians on the reservation, of whom in 1900 there were 2,660, are the Mountain and River Crows, of Siouan stock. The bands were named from the portion of the country which they once inhabited, the River Crows living along the river in northern Montana, while the Mountain Crows lived farther south, in the mountainous region.

As a tribe the Crows are peaceable and docile. Agriculture, stock raising, work on irrigation ditches, and freighting Government supplies, now constitute their general occupations. Agriculture is their principal pursuit, and in it they are making steady progress; but great credit is also due them for labor on the irrigation ditches, all the earthwork of the system, with the exception of rock cuttings, having been performed by them. Government rations furnish 25 per cent of their subsistence, and annuity payments 25 per cent, but, although in 1897 all rations excepting beef were withdrawn from the able-bodied, no perceptible hardship resulted from this action.

A most important step toward civilization is the irrigation system on the Big Horn and its tributaries, which, when completed, will provide every family with sufficient agricultural land for comfortable self-support. This system ranks among the finest in the United States in point of construction and area covered, the ditch work being of a most substantial and permanent character. The expense has been borne by the Indians, and is being paid from their annuity funds and from money received through grazing leases. The policy of the Government in employing Indian labor has been of great benefit to the Indians, as, besides providing employment, it has taught them habits of industry, and has also given them a knowledge of irrigation which they could have acquired in no other way. Being required to earn their money they have come to know its value, and expenditures have been more judicious than when money was paid them, allowing them to remain in idleness. Many have purchased good horses, wagons, harnesses, and farm machinery, and a few have built houses.

The Crows raise wheat, oats, and vegetables and also cut large quantities of wild hay. Farming is carried on by individual allottees, and also on the communal system under the management of Government farmers. The greater interest taken in individual farms and the better results obtained, make that system preferable, and it will be adopted exclusively when allotments are completed. The communal system takes away all sense of responsibility and individual interest, which are essential elements of success. Stock raising is also an industry of considerable importance among the members of this tribe.

¹ Not a part of any county.

² Since reduced by the relinquishment of part of the reservation.

Flathead reservation, embracing an area of 2,240 square miles, lies in Flathead and Missoula counties, in the western part of Montana. The reservation is naturally divided into four mountain valleys in which the land is well adapted to both agriculture and stock raising. The soil is a fertile, though somewhat gravelly, sandy loam, and with irrigation produces fine crops of grain, fruits, and vegetables. Approximately 500,000 acres are cultivable, of which three-fourths will require irrigation, for which purpose the mountain streams could furnish a never failing and easily diverted water supply. The ranges are in fair condition, although somewhat overtaxed. There is also an abundance of timber for the construction of houses and fences.

The following five tribes inhabit this reserve: Flathead, Pend d'Oreille, Spokane, and Lower Kalispel, all of Salishan stock, and the Kutenai, of Kitunahan stock, comprising, in 1900, a total population of 2,142. The confederated Flathead, Pend d'Oreille, and Kutenai selected this tract in their treaty of 1855 and were joined in 1887 by the Lower Kalispel, in 1890 by the Kutenai from Idaho, in 1891 by Charlot's band of Bitter Root Flatheads, and finally by the Upper and Middle Spokane in 1893. The Flatheads comprise by far the larger part of the population and have been on friendly terms with the white men ever since they were first met by Lewis and Clarke in 1803.

Progress in civilization differs widely here; a large number, especially those of mixed blood, are educated and self-supporting, and have comfortable, modern homes, while others are backward, densely ignorant, and poor. Agriculture and stock raising are their principal means of support, and nearly all have frame houses and some land inclosed.

There is no regular system of irrigation on the reservation. Much of the land now under cultivation lies along the river and creek bottoms, requiring little or no irrigation to grow successful crops, or is land where small, individual ditches have been made and upon which water can be turned with little labor.

Wheat, oats, and wild hay are the principal crops, although clover, alfalfa, and other tame grasses are also cultivated. There is a flour mill on the reserve, and the wheat raised by the Indians furnishes flour enough for home consumption and also to supply the demand of traders and neighboring ranchmen. Most farms have small gardens, in which potatoes, cabbages, onions, sweet corn, and, frequently, small fruits are grown. Orchards of bearing apple trees are quite common, and there are a few cherry, plum, and pear trees.

Of equal importance with agriculture are the rapidly increasing stock-raising interests. At present the larger number of range cattle are owned by a few Indians and "squaw men," although many Indians have made small beginnings in this industry. A large number of farmers own dairy cows and reported milk and butter;

chickens and swine are also quite numerous. The Indian pony problem is most serious, as nearly every Indian has a number of ponies on the range, and a few have large herds. Most of these animals are too small even for saddle horses, and they form a serious hindrance to profitable stock raising. Strenuous efforts have been put forth to check the increase and to sell the surplus, and nearly 4,000 were disposed of in 1900.

Fort Belknap reservation is situated in Choteau county, in the north central part of Montana, and has an area of 840 square miles. This tract is adapted to stock raising and the range is ample and well watered. Agriculture, in such an arid region, is practically impossible without irrigation, and but a comparatively small area could be made cultivable even with a water supply. The mountains furnish an abundance of pine timber suitable for building purposes.

Two tribes are represented here, the Grosventre (a division of the Arapaho) of Algonquian stock, and the Assiniboin of Siouan stock, with a total population of 1,312. These Indians are beginning to abandon their nomadic habits for quiet and peaceful pursuits. Tribal life has been largely broken up, and nearly every head of a family has his own home and a garden, with perhaps a small patch of grain near by. Stock raising is about the only occupation open to them, and until quite recently they have paid but little attention to that. Government rations constitute 65.0 per cent of their support.

Little farming was done in the census year, owing to a late, cold spring, which made it impossible to get seed into the ground in time for crops to mature, and consequently no reports of crops were made. In favorable seasons they raise oats, wheat, and vegetables, their patches of grain averaging from 5 to 10 acres. Some attempts have been made at irrigation, but thus far the results have been unsatisfactory.

At Fort Belknap live-stock interests are paramount and every effort is being put forth to induce the Indians to care for their animals. Heretofore their cattle have always grazed in common, but this method is being discouraged and small communities are beginning to close herd in order to prevent losses by straying. They own some good horses in addition to the large herds of useless Indian ponies.

Fort Peck reservation, comprising an area of 2,775 square miles, is situated in Valley county, in the north-eastern part of Montana, the Missouri River forming its southern boundry. This tract is principally a grazing country, well watered and containing an ample supply of timber. Agriculture is very uncertain without irrigation; some of the bottom lands would produce well with it, but, although the water supply is abundant, the difficulty of conducting it to the land is very great.

This reservation is occupied by the Assiniboin and Brulé, Santee, Teton, Hunkpapa, and Yanktonai Sioux, all of Siouan stock, having a total population of 1,946.

The different bands are still distinct, although they have intermarried to a great extent, and have settled largely in the southern part of the reserve, along the Missouri River. They are willing workers when they can see a return for their labor, but have become quite discouraged over failures in crops. Stock raising is their only available industry and will eventually prove their means of support. Farming operations consist principally in cutting wild hay for winter feeding, though the majority of the Indian farmers raised small patches of corn and potatoes. The number of acres devoted to cereals and vegetables by individual farmers was very small, ranging from 1 to 5, and never exceeding 10 acres.

These Indians have considerable live stock, consisting of horses and cattle. In former years the Assiniboin raised sheep, but these have been sold and range cattle have been substituted. They take good care of their animals, and the herds are rapidly increasing. The horses owned at Fort Peck are of a better grade than the average Indian pony. Dairy cows and chickens are found on some farms.

Northern Cheyenne reservation, containing an area of 765 square miles, is located in Custer county, in southeastern Montana. Most of the land is hilly and broken, but well adapted to grazing, as the large areas of pine timber form a protection to the stock in stormy weather. The land suitable for agriculture is quite limited in extent, being confined to the bottom lands of the four small creeks running through the reservation. Approximately 20,000 acres could be cultivated with sufficient irrigation, but the water supply is very limited.

The Northern Cheyenne of Algonquian stock inhabit this reservation, and numbered, in 1900, 1,454; together with the Piegan, they are the most western tribe of this stock in the United States. The larger number are poor and improvident, and still cling to their old superstitions. Some few have undertaken agricultural operations, but without irrigation crops are very uncertain. Government rations practically constitute their support.

At the time the census was taken, nearly all the available agricultural land was in the hands of a few white settlers, who had taken up claims before the Cheyenne selected this tract as their home. Consequently the Indians have had little opportunity to advance along agricultural lines. Great difficulty has been experienced in inducing them to care for their gardens, as they plant the seed and simply await results. With the exception of wild hay, their crops in the census year were failures. The live stock of the Indians consists of ponies and a few horses.

Wyoming contains the Shoshoni reservation, which embraces an area of 2,868 square miles, and is situated in Fremont county, in the west central part of the state. It lies at the base of the Rocky Mountains and contains

ample agricultural and grazing land. This region is one of great aridity, but with irrigation the soil produces well. The range is extensive, and a considerable portion is rented to white stockmen.

The tribes of the reserve are the Shoshoni or Snake Indians, of Shoshonean stock, and the Arapaho, of Algonquian stock, having in 1900 an aggregate population of 1,961. The two tribes, which are nearly equal in number, are entirely separate, living from 20 to 30 miles apart, and they intermarry but little, as the Shoshoni still retain some of their hereditary enmity for the Arapaho, regarding the settlement of the latter on this reserve in 1878 as an intrusion. Both tribes are peaceable and industrious, and their progress toward civilization and self-support, while slow, is nevertheless steady and perceptible. Agriculture, in which they manifest commendable interest, is their principal pursuit, although they also raise stock. Government rations constitute 75.0 per cent of their subsistence and annuity payments 12.0 per cent.

Wheat, oats, and alfalfa were their principal crops in 1899. Large quantities of wild grass were cut and a few potatoes raised, but no other vegetables were reported. The areas cultivated by these farmers ranged in size from 5 to 30 acres. Irrigation is necessary, and the Government has given considerable aid in the construction of adequate systems. They have several canals over five miles in length, in addition to many miles of ditching constructed by the Indians individually.

The Southern Ute reservation, containing 870 square miles, is situated in the extreme southwestern part of Colorado, a small portion extending into New Mexico. On this reservation are located the Moache, Capote, and Wiminuche Ute, of Shoshonean stock. These bands are commonly known as the Southern Ute, and until within recent years were considered as "blanket Indians," as they lived by hunting, fishing, and gathering wild seeds. The indifference which they have always manifested toward education has been a great drawback to their advancement.

No part of the reservation is arable without irrigation, but where water can be had the soil is well adapted to agriculture and grazing. All cereals, grasses, fruits, and vegetables grown in that section of the country do well on the reserve. The arable land, constituting about one-fifth of the total area, is confined to the river valleys. The eastern part of the reservation, on which the Moache and Capote bands reside, is well supplied with irrigation facilities. There are now in operation four large canals, aggregating 24½ miles in length, together with many smaller ditches. The work is gradually being extended and new land is constantly being reclaimed for cultivation.

By nature adverse to manual labor, the Colorado Indians have been slow to adopt agriculture as a means of subsistence. The allotted Ute (Moache and Capote)

are making steady advancement, and when their irrigation systems are fully developed they will have an opportunity to become self-supporting. They have constructed new roads and have built fences, barns, and log houses, in some instances without the assistance of white men. Government rations still constitute 25.0 per cent of their subsistence.

The Wiminuche, constituting more than half of the tribe, are located on the western part of the reserve. They have no water supply, and consequently little opportunity to improve the land. When allotments were made the Wiminuche refused them and elected to hold their western lands in common. They have undertaken stock raising on a small scale, but the continued drought of the last few years has driven them to the mountains in order to find food and water for their animals. Living in caves and dugouts in the mountains, their condition is becoming more deplorable each year; and until their part of the reserve is furnished with an irrigation system, the Wiminuche will remain entirely dependent upon Government rations for their support.

The crops of the Southern Ute are wheat and alfalfa. The Indians have a ready market with good prices for everything they raise. Their live stock consists principally of horses, sheep, and goats, which they allow to run on the range all winter without shelter or feeding, losing many in consequence.

The New Mexico reserves reporting agriculture are Jicarilla Apache and the 19 pueblos of the Pueblo Indians. The reports of the latter, with the single exception of the Zuni, have been consolidated, making a single report for the entire number. Zuni, the largest and most remote of the pueblos, is more properly entitled to be called a reservation, as the old Spanish grant creating it has been many times enlarged within recent years by grants from the United States.

The Jicarilla Apache and Pueblo represent two distinct types of Indian agriculturists. Those of the one type, formerly wild and nomadic, like the Indians of the plains, have been forced, through the encroachment of the white man, to settle down and adopt the ways of civilization, and are learning at the hands of the Government to labor and to depend upon the products of the soil for their support; those of the other type, possessing a distinct civilization of their own, tilled the soil, and were a peaceable, agricultural people long before the Spaniard set foot on American soil.

Jicarilla Apache reservation is situated in Rio Arriba county, in the extreme northern part of New Mexico, and contains an area of 650 square miles. It is almost exclusively a timber and grazing country, consisting of low pine hills, mesas, and small valleys in narrow canyons. In some valleys small areas can be cultivated without irrigation. Although the lakes in the southern part of the reserve and the Navajo River on the north could furnish a water supply sufficient to cover several

thousand acres, no efforts have been made toward the construction of a system of irrigation.

The Jicarilla Apache of Athapascan stock numbered 829. Their principal occupation was raising sheep and goats, though a few have also carried on agriculture on a small scale.

They raised corn, wheat, oats, potatoes, and other vegetables, in addition to cutting large quantities of wild hay. Their patches of grain and vegetables, in the majority of cases, ranged in size from 4 to 10 acres. Their crops in the census year suffered severely from the long continued drought. Most farmers have small flocks of sheep and goats besides Indian ponies, but within the last few years severe winters with heavy snowfalls have considerably reduced their flocks.

The Pueblo reserves, 19 in number, are scattered largely throughout the north central part of New Mexico, in Bernalillo, Rio Arriba, Santa Fe, Valencia, and Taos counties, most of them lying along the Rio Grande or its tributaries. They are not reservations, strictly speaking, being grants of the Spanish Government confirmed by United States patents. Their total area, exclusive of Zuni, which is reported separately, is 1,081 square miles.

The legal status¹ of these Indians is much in dispute, the Government having always considered them as wards of the nation, like the tribes of the plain, although they possess a civilization much superior to the latter. They have Government schools and an agent, and occasionally they receive clothing and implements.

The Pueblo Indians have been an agricultural people from time immemorial. Among them there are five different tribes, although their customs and characteristics differ but little; Queres, the largest tribe, is composed of pueblos of Cochiti, Santo Domingo, San Felipe, Santa Ana, Sia, Acoma, and Laguna; Piro comprises the pueblos of Taos, Picuris, Sandia, and Isleta; San Juan, Santa Clara, San Ildefonso, Pojoaque, Nambe, and Tesuque compose the tribe of Tegua; while Zuni is a distinct tribe, as is also Jemez. The population of the Pueblo, exclusive of Zuni, was 6,602, the inhabitants being collected in villages, or pueblos, close and compact, usually located in the midst of their farm land. They are peaceable and industrious, devoting all their time to their flocks and fields of growing crops. Though self-supporting, they are very poor, and in times of extreme drought require aid from the Government.

The principal crops are Indian corn and wheat. Some pueblos raise a small quantity of alfalfa, and beans, chili, onions, melons, and squashes constitute their supply of vegetables. Many Indians have small orchards of peach and apricot trees, and grapes are raised in some pueblos. No crops can be raised without irri-

¹For a complete discussion of this subject see report of Commissioner of Indian Affairs, 1891.

gation, which has been practiced in a primitive manner from earliest times. Their systems of irrigation are crude, but in ordinary seasons furnish a water supply sufficient to mature the crops. San Ildefonso and Sia were the only pueblos suffering from a shortage of irrigation water in the census year. The majority of Pueblo farmers have from 10 to 30 acres under cultivation, a few having as high as 60 and 80 acres. The land is not allotted, but parceled out to each head of a family, the community as a whole holding the title in common.

Their methods of harvesting, threshing, and grinding grain are most antiquated. Wheat is harvested with the old reaping hook which has been in use for so many centuries, and threshing is performed by driving the animals over the threshing floor until the grain is trampled from the straw, after which all foreign substances are picked out by hand and the grain washed. When these Indians learn the value of improved machinery their economic condition will no doubt be greatly improved.

A Pueblo farmer usually has a few horses, cattle, sheep, and occasionally burros and goats. Some of them possess large flocks of sheep.

Zuni, the largest and most western of Pueblo reserves, is situated in the extreme western part of New Mexico, in Valencia county. The original Spanish grant contained 27 square miles, but it has since been greatly enlarged, the present area comprising 336 square miles. It lies in a great plain watered by the Zuni River.

The Zuni, although having many characteristics in common with the Queres (composed of Cochiti, Santo Domingo, San Felipe, Santa Ana, Sia, Acoma, and Laguna pueblos), are, however, considered a distinct tribe. Their total population numbered 1,525 in 1900. Like other Pueblo Indians, they are kind, peaceable, and industrious, having been always a self-supporting agricultural people. Their farms are situated from 15 to 25 miles from the pueblo, lying in small valleys and canyons adjoining the basin in which their village is located. They irrigate in their primitive manner, and keep their ditches in good repair. Throughout the growing season they spend most of their time on their farms, returning to the pueblo after the harvest. Sheep raising is also extensively carried on in connection with their farming operations.

Corn, wheat, beans, sweet corn, onions, melons, and squashes are their usual crops. The Indian farms generally range in size from 10 to 20 acres, with a few containing from 30 to 40 acres, the larger being planted in corn. These Indians also possess orchards of peach trees, and usually have large quantities of peaches, which they dry and store away for use during the winter months.

The wealth of the Zuni lies in their flocks of sheep, which nearly all possess. Other possessions in live

stock are ponies, mules, and a small number of range cattle. A number have chickens, and a few own swine.

The Indians of Arizona were among the earliest agriculturists on American soil. The Spaniards who explored this region about the middle of the sixteenth century found the Pima, Maricopa, and Hopi Indians planting, sowing, and irrigating¹ the dry though fertile soil of this territory in their primitive manner. With the exception of the Apache, they are all either an agricultural or pastoral people. Very little, if any, of the land of the reservations is arable without irrigation, and thousands of acres, especially on the Navaho reservation, are practically worthless, either for agriculture or grazing. Hundreds of acres of desert land have been converted into fruitful fields of grain by means of their crude irrigation methods. The greatest need to-day of the Arizona Indians is the systematic and scientific development of whatever water supplies the reservations afford.

Until within the last few years, when the rainfall has been considerably below the average, the Indians, with the exception of the Apache, have been practically self-supporting. The principal crops raised are corn, wheat, and barley. The last is very often cut green for hay, as it brings an excellent price. Beans, melons, pumpkins, and onions are the vegetables usually raised. Corn and vegetables constitute their second crop, which tides them through the winter months. Like most Indians, they pay little attention to dairying, those who have dairy cows milking them intermittently and consuming all the milk produced. The production of milk was reported only from Fort Apache reservation and the Gila and Salt River reservations. Fort Apache reservation also reported the production and sale of butter. Of the 62 dairy cows on Indian reservations in Arizona 21 were owned by white men. Of the total number of farms in Arizona, 30.4 per cent were owned or operated by Indians, but the total acreage of these farms constituted only 2.3 per cent of the total area of farm land in the territory.

Colorado River reservation, the home of 558 Mohave (of Yuman stock), is situated in the extreme western part of Arizona, and contains an area of 376 square miles. The reserve now extends for a distance of 60 miles along the Colorado River, which annually overflows a portion of it, but the larger part requires irrigation to raise any crop. It is estimated that nearly the entire valley could be irrigated, and thus support more than one-half of all the Arizona Indians. The resources of this reserve are very great. The soil is as fertile as any in Arizona, and crops will grow the year round.

The band on the reservation is only a small part of the tribe, the larger part living near Needles, in California. Government rations constitute 40.0 per cent of

¹ Aboriginal remains in Verde Valley show irrigation ditches at least one hundred and fifty years old.

their support. Wheat is the most successful crop of the Mohave, although barley and corn do well. The vegetables grown are beans, melons, and pumpkins.

Gila River and Salt River reservations, located in the south central part of Arizona, contain a total area of 631 square miles, and are the home of the Pima and Maricopa tribes, of Piman and Yuman stock. They are now practically inseparable and had, in 1900, a total population of 4,619. The Pima have been an agricultural people from time immemorial. They are peaceable and industrious and have been independent until the last few years.

During the last ten years the Indians at Gila River have suffered intensely by reason of the scarcity of water. From a condition of independence and prosperity, they have become practically dependent upon the Government for their support.

Salt River reservation has a fair water supply, and the crops raised are sufficient to support the Indians living thereon, but the area is so small that the greater part of the population of these tribes is dependent upon the resources of the Gila River reservation. It is estimated that one-half of the latter reserve could be cultivated if the water supply were sufficient, as the soil is very fertile. The Gila River furnished an abundant supply of water for irrigation prior to the construction of the Florence dam, which diverted the water from the river, a short distance above the reserve, so that during certain seasons of the year its bed is almost dry.

The principal crop of the Pima was wheat, although some corn and barley were raised. Gila River and Salt River reservations were the only ones which raised alfalfa to any extent. These reserves exceeded all others in the territory in acreage devoted to vegetables, and reported the most poultry and the largest quantity of milk. The Pima have considerable live stock, principally range cattle and Indian ponies.

Hopi reservation is situated in the northeastern part of Arizona, adjoining the Navaho on the south and west, and contains an area of 3,863 square miles.

The Hopi¹ Indians of Shoshonean stock, inhabiting this reserve, have been, since the white man has known them, an agricultural and pastoral tribe, quiet and inoffensive. They live in compact villages, seven in all, which are situated on the top of mesas. Their houses are built of adobe, brick, and stone, three or four stories high, and are similar to those of the Pueblo Indians in New Mexico. During the growing season they live in the valleys, but as soon as the harvest is over, with few exceptions, they return with their produce to the mesa land. The Hopi are very provident, as well as self-supporting. In 1900 the total population

of the reservation was 3,807, of which nearly one-half were Navaho.

Corn is the principal crop and in the census year they raised more than double the quantity grown by any other tribe in the territory. They also raised sweet corn, squashes, beans, pumpkins, and melons. They also reported 15,541 peach and apricot trees, but their crop was almost a failure on account of early frosts. The majority of their farms are small, ranging in size from 3 to 10 acres, a few having as high as 30 acres under cultivation. Their water supply is very limited, and they still irrigate in the primitive Indian fashion. In addition to their agricultural interests, the Hopi possess large flocks of sheep and goats, as well as herds of range cattle and ponies.

Navaho reservation, containing an area of 12,029 square miles, is situated in the extreme northeastern part of Arizona and extends into Utah and New Mexico. The greater part of the land is valueless, and that portion which can be utilized is best adapted for grazing sheep and goats. Agriculture can be carried on only in the mountain valleys and along the small streams. The Navaho are a pastoral people, having tended their flocks and herds since the advent of the Spaniards. The total population on the reserve was 8,897. Government rations constitute 10.0 per cent of their subsistence. The flocks of the Navaho have suffered severely during the last ten years on account of the steadily decreasing rainfall and the resulting scarcity of vegetation. In some seasons the almost total failure of crops forced the Indians to slaughter their sheep for food.

The only crop reported for the Navaho reservation was corn. Squashes, melons, pumpkins, and other vegetables were planted, but did not mature on account of the dry season. The crops raised in recent years have not been sufficient to support over one-fourth of the population. The Indians have made some small attempts at irrigation, in which the Government has aided, but they still lack an adequate system.

The Papago are located on the Papago, or San Xavier, and Gila Bend reservations. The former, situated in the extreme southern part of Arizona, in Pima county, has an area of 108 square miles. The latter, situated in the southwestern part of the territory, in Maricopa county, contains an area of 35 square miles.

The Papago, of Pima stock, are less nomadic than formerly, and are making good progress in agriculture, which is their principal occupation. The Indians on the reserves number 1,205 and are practically self-supporting. They are industrious and economical, spending the money received from their produce on improved machinery and in building homes.

In 1900 their crops were corn, wheat, and barley. On account of a disastrous frost in 1899, large quan-

¹ The proper tribal name, according to the Bureau of American Ethnology and the Indian Bureau. Moquis is an opprobrious nickname.

tities of grain were cut green for hay. Much of the land under cultivation has been allotted and consists of small individual holdings. The water supply is insufficient for irrigation. The Papago, in 1900, possessed a small number of range cattle and large herds of Indian ponies.

Fort Apache and San Carlos reservations, the home of the Apache, of Athapascan stock, lie in the southeastern part of Arizona. Previous to 1897 they were united and known as the White Mountain reservation. Fort Apache is the more northerly of the two reserves and contains an area of 2,628 square miles. Much of the land is well adapted to grazing, and with adequate irrigation facilities, large tracts would also be cultivable. The Apache are naturally wild, nomadic, and warlike, having taken to peaceful pursuits only within recent years; but they now manifest a spirit of energy, characteristic of the tribe, in their efforts to earn a livelihood. There was a population of 1,876 at Fort Apache, the settlements being largely along the streams which water the narrow valleys.

The principal crops were corn and barley. Their corn crop in the census year was surpassed only by that of the Moqui. In favorable seasons the Apache also cut large quantities of wild hay. The crudeness and inadequacy of their facilities for irrigation constitute a great drawback to self-support. A considerable number of range cattle were owned by these Indians, but as they used them for food their herds did not materially increase. At present 20.0 per cent of their subsistence is furnished in Government rations.

San Carlos reservation has an area of 2,866 square miles, but, like most Arizona reserves, the land is arid and requires irrigation to produce crops. Here in addition to the Apache, were several hundred Mohave, of Yuman stock, aggregating a population of 3,065. In the last few years they have made good progress toward self-support, but Government rations still constitute 33.0 per cent of their subsistence. Corn, wheat, and barley were their principal crops, but in the census year corn was a failure on account of the drought. The San Carlos Indians owned some range cattle and large herds of ponies, largely inbred and of little value.

Walapai reservation, having an area of 1,142 square miles, is located in the northwestern part of Arizona. Owing to the scarcity of water the land is practically worthless for either agriculture or stock raising. Small patches of corn, beans, pumpkins, and melons are raised, but the total area in crops rarely exceeds 100 acres.

The Walapai, of Yuman stock, numbered 620. As there is little opportunity for them to gain a livelihood on the reserve, they find employment among their white neighbors. Herding stock is their principal occupation and they make good sheep-shearers. Government rations constitute 25.0 per cent of their subsistence.

The Supai, or Havasupai,¹ are in a better condition than the Walapai. Their reservation, containing 60 square miles, is located in a canyon, shut in from the outside world. With plenty of water for irrigation and good soil they have every inducement to be an agricultural people. They raised the customary Indian crops of corn, beans, pumpkins, and melons, and also had orchards of peach trees. There were 250 Indians on this reservation, all of whom were self-supporting.

Uinta Valley and Uncompahgre reservations are located in the northeastern part of Utah, in Uinta and Wasatch counties. Uinta Valley reservation comprises an area of 3,186 square miles. Uncompahgre, with the exception of 20 square miles allotted to 83 Indians, and a reserve of the mineral lands by the Government, has been opened up to settlement. The valleys of the Uinta River and its tributaries are fertile, well watered, and timbered. Agriculture on the reservation, as a whole, is successful only through irrigation. Approximately one-tenth of the Uinta Valley reservation has a water supply sufficient to make it suitable for agriculture, and the remainder is well adapted to stock raising.

This is the home of the Uinta, White River, and Uncompahgre Ute, of Shoshonean stock, which have a total population of 1,637. They have begun to realize that industry is essential to their existence, and their desire to become self-supporting is constantly increasing. Agriculture is their principal occupation, and a continual improvement is noticed. The Uinta and White River bands are dependent upon Government rations for 60.0 per cent of their subsistence, the Uncompahgre for but 45.0, while annuity payments provide 10.0 per cent of the sustenance of the entire number.

Alfalfa was the most extensive crop of the Utah Indians, while wheat and oats constituted their cereal crops. Many cultivated gardens, in which they raised potatoes, onions, melons, pumpkins, and turnips, and a few farmers also reported pease, beans, cabbage, and sweet corn. The majority of the Indian farmers had each from 10 to 50 acres under cultivation; a few having over 100 acres. Their farms compare favorably with those of white farmers in the same vicinity. All crops were raised by the aid of irrigation, and their system at present is in fairly good condition. There are approximately 65 miles of ditch on the reserve, covering about 60,000 acres of land.

These Indians have not taken advantage of the opportunity for cattle raising which their land affords, and although a number have undertaken this industry, their herds are not large enough as yet to yield a profit to the owners. The Uncompahgre Ute possess small flocks of sheep, but by far the larger number on the reserve are owned by white renters.

¹ Correct tribal name according to the Bureau of American Ethnology and the Indian Bureau.

The Indian tribes of Nevada are the Paiute,¹ Western Shoshoni, and a few scattering bands of other tribes, all of Shoshonean stock. None of these tribes tilled the soil before they were instructed by the Government, although several Shoshonean tribes of the southwest had a knowledge of agriculture previous to the coming of the white settler.

These Indians live, for the most part, on three reservations—Pyramid Lake, Walker River, and Duck Valley, the Paiute on the two former and the Western Shoshoni on the last named. They carry on agriculture and stock raising, especially for neighboring ranchmen, and are proficient in most kinds of farm labor. Fishing furnishes a profitable occupation for a large number, and provides an important part of their food supply. Others are engaged in freighting Government supplies and in cutting and hauling wood, but many are still somewhat dependent upon Government rations.

Duck Valley reservation, with an area of 488 square miles, is situated in the extreme northern part of Nevada, in Elko county, and extends into Idaho. The larger part of the area is mountain land, naturally adapted to grazing, being well watered and covered with nutritious grasses. Duck Valley proper, watered by the Owyhee River, comprises about one-fourth of the entire area of the reservation and has 40,000 acres of arable land that can be profitably cultivated in hay and forage when properly irrigated. On account of the altitude, 6,000 feet, the short, uncertain seasons, and insufficient water, agriculture is attended with but partial success.

The tribes on this reservation are the Paiute and Shoshoni, of Shoshonean stock, and in 1900 numbered 439. They are about equal in numbers, but have intermarried to such an extent that it would be impossible to separate them on tribal lines. They are industrious, quiet and peaceable, good stockmen and haymakers, and they are also in great demand as sheep-shearers. A few practice agriculture and stock raising for themselves to a limited extent. Government rations constitute 30.0 per cent of their support. These rations are issued regularly in limited quantities to all Indians, being decreased gradually as they progress toward self-support.

The water supply for irrigation is very unreliable. The streams, depending upon the snow on the neighboring mountains, are swollen beyond their banks in the springtime, but are very low during the irrigation period. Less than 5,000 acres can be successfully cultivated with the quantity of water now available.

Alfalfa and wild hay are raised most extensively in Duck Valley, the former yielding two crops each year. Barley and wheat constitute the crop of cereals, the fall-sown wheat maturing in July and seldom requiring irrigation more than once or twice.

The Indians, as yet, have given but little attention to stock raising. Their horses consist almost entirely of Indian ponies, and a few own large herds of them. Efforts are being put forth to induce them to sell their ponies and substitute cattle in their stead, as stock raising must eventually furnish their means of subsistence. The hay lands produce a crop sufficient to maintain several thousand cattle.

Pyramid Lake reservation is situated in the extreme western part of Nevada, in Washoe County, and contains an area of 503 square miles. The larger part is taken up by Pyramid Lake, which extends 38.1 miles in its extreme length and averages 12 miles in width. The land is arid and a large part of it is mountainous, less than 20,000 acres being available for agriculture. The soil is alkali, but productive when sufficiently watered. The mountainous portion is naturally adapted to stock raising, being well watered by the melting snow, and would furnish good feed for cattle and sheep.

The reservation is inhabited by the Paiute, of Shoshonean stock, numbering 705. They have never had a treaty with the Government, but have relied upon the gratuity of Congress for what assistance they have received.

The band at Pyramid Lake is now contented and industrious, taking kindly to farming and stock raising, and is practically self-supporting, as Government rations constitute but 5.0 per cent of its subsistence. Many of the Indians find employment on ranches and cattle ranges of neighboring white farmers. Others freight Government supplies, cut and sell wood, and pick hops. Pyramid Lake abounds in salmon, trout, and other fish, which provide an ample food supply, especially during the winter months, and furnish also an excellent source of revenue.

The irrigation facilities are not only very unreliable, but are wholly inadequate to the needs of these Indians, not more than one-third of the available land being watered. The consequent failure of crops so discouraged them that they preferred to work for white farmers rather than cultivate their own land, until provided with an abundant and reliable supply of water for irrigation. Efforts are being put forth to improve and extend the present system, which, when completed, will bring an additional 3,000 acres under cultivation, and should place this band on a self-supporting agricultural basis.

Barley and alfalfa are the principal crops raised at Pyramid Lake, and clover and wild grasses also add to the yield of hay. With plenty of water, alfalfa will yield two, or even three, crops each year. A few farmers raised small quantities of potatoes, otherwise no garden produce was reported. The number of acres cultivated by the Indian farmer varies from 2 to 27, being usually less than 10 acres. No allotments have been made, the land being parceled out to members of the tribe.

¹ Also known as Paviotso.

The Pyramid Lake Indians own little live stock. In horseflesh, the Indian pony constitutes their chief possession, but a few have horses of a somewhat better grade.

Walker River reservation lies in the west central part of Nevada, in Esmeralda county, a portion extending into Lyons and Churchill counties. It embraces an area of 498 square miles, of which a considerable part is occupied by Walker Lake, 26 miles long and 8 miles wide. Of the land area two-thirds is arid, rough, mountain, and timber land, but the remainder is suitable for agriculture or grazing. The reservation is traversed for 22 miles by Walker River, and the land upon the borders of the stream is rich and easily irrigated. Bench land, although not as fertile as the river bottom, produces fairly well when irrigated, while mesa and mountain lands afford ample feed for stock.

The Indians at Walker River are the Paiute, with a population of 392. Like the band at Pyramid Lake, they are industrious and are slowly progressing toward civilization, making good farmers, stockmen, and general laborers. The old, infirm, and blind are wholly dependent upon the Government, all others being self-supporting, though very poor. The irrigable land is insufficient to support them, and they are very much in need of agricultural implements, two great drawbacks to their progress.

Alfalfa is the principal crop, but wheat and barley are also grown. Individual Indians cultivate as high as 50 acres, but the majority less than 20. The agricultural land is not allotted, but parceled out to those who manifest a desire to cultivate it. Some interest is taken in stock raising. Their horses are all pony stock, and many still seem to think that the Indian pony is a necessity to their welfare. On account of the natural facilities for stock raising and the precarious conditions attending agriculture, more attention could profitably be given to the former industry.

The Indian tribes in Idaho are the Cœur d'Aléne and Spokane on the Cœur d'Aléne reservation, the Shoshone, Bannock, and Sheepeater at Fort Hall and Lemhi reservations, and the Nez Percé on the Nez Percé reservation. Like most tribes of the Northwest these Indians had no knowledge of agriculture previous to the coming of the white settler, but lived on roots, seeds, berries, fish, and game.

All are now located on land capable of cultivation and are receiving instruction in agriculture and stock raising from the Government. The Cœur d'Aléne and Nez Percé have made good progress and are now able to make a living by farming. Having relinquished a portion of their lands to the Government, they have had money to provide all necessary implements and equipment. The other tribes, Shoshoni, Bannock, and Sheepeater, are still dependent upon Government rations for about 30 per cent of their subsistence.

Cœur d'Aléne reservation is located in Kootenai county, in the extreme northwestern part of Idaho, the state line forming the western boundary. The reservation now embraces an area of 404,480 acres, 240,000 acres having been ceded to the Government in 1891. About one-half the total area is adapted to agriculture or grazing. This tract being well watered and timbered, with a rich soil, constitutes a fine body of agricultural land requiring no irrigation to produce abundantly.

The Cœur d'Aléne tribe, together with 99 Upper and Middle Spokane, comprising, in 1900, a total population of 752, occupy this reservation. Both tribes are of Salishan stock. Agriculture is their principal occupation, and, with but few exceptions, their farms are well supplied with buildings and implements.

Material progress is being made from year to year in the improvement of their farms. The acreage sown to crops in the census year was the largest ever cultivated, and new land is being broken each year. Many of the Indian farms at Cœur d'Aléne would compare favorably with those of neighboring white men in the number of acres under cultivation.

Fort Hall reservation is situated in the southeastern part of Idaho, in Bannock and Bingham counties, and contains 1,331 square miles. About one-fifth of the total area is arable, three-fifths consists of hay and grazing land, and the remaining one-fifth is rocky, mountain, and timber land. This tract is located in the so-called arid district of the state, where irrigation is necessary to successful agriculture. The Snake River forms a part of the western boundary, and furnishes the water for irrigating the reservation and surrounding country. The excellent winter range makes this a favored spot for stock raising. The valley and table lands are fertile, and when irrigated produce abundantly. The bottom lands of the Snake River are chiefly valuable for their immense crops of wild hay.

The tribes at Fort Hall are the Bannock and Shoshoni, of Shoshonean stock, numbering in all 1,387, of whom only about one-fourth are Bannock. By continual intermarriage the marks of tribal distinction are fast being obliterated. The Bannock are more backward and slower to adopt the ways of the white man than the Shoshoni, but because of their aggressiveness and persistence they are the dominant factor, notwithstanding their minority. Very few of them do any farming, but those who do engage in this pursuit do so with energy and intelligence. About 30 per cent of their subsistence comes from the Government.

They take a great interest in stock raising, employ herders, and give as much attention to their cattle as do the white men. The interest manifested in farming has been increasing in the last few years and individual farmers are adding steadily to their improved acreage.

A system of irrigation for this reservation is now in course of construction, which, when completed, will

enable the Government to place every family upon irrigated land.

The principal crops raised on the Fort Hall reservation are wheat, oats, alfalfa, and wild hay. Corn can not be depended upon to mature in the short season. Nearly all of the more progressive Indians have gardens, in which they raise potatoes, carrots, onions, and other vegetables of the hardier varieties for home consumption. Their farm products find a ready market among the neighboring cattlemen and miners.

The stock of the reservation is of a good grade and well cared for, but Government supervision and aid are necessary to prevent continual inbreeding and deterioration.

Lemhi reservation, comprising an area of 100 square miles, is situated in Lemhi county, in the extreme eastern part of Idaho. The land for the most part is mountainous, less than 5,000 acres being suitable for agriculture. Owing to the altitude, the growing season is very short. This reservation also lies in the arid district, and irrigation must be practiced in order to successfully raise crops.

The tribes at Lemhi are the Bannock, Shoshoni, and Sheepeater, all of Shoshonean stock, with a total population of 486. By long years of intermarriage these three bands have become practically a single tribe, and it is difficult to distinguish the predominant blood.

As a tribe they are honest, peaceable, and kindly disposed, but far from civilized, as they still cling to their native customs. However, a gradual improvement is taking place among them, and they are slowly acquiring habits of industry. Those who pursue farming are making steady improvement under the direction of the two Government farmers. Their farms are gradually being enlarged, and new log houses and better fences are being constructed. On account of the short season, agriculture alone can not be depended upon for their support, but the introduction of stock raising, to which the country is adapted, would in time make them practically self-supporting. The system of irrigation on the reservation is gradually being extended.

The crops of the Lemhi Indians consist of wheat, oats, clover, and timothy. The acreage cultivated by individual Indians ranges from 5 to 60 acres, but averages between 10 and 20 acres. Their live stock consists entirely of Indian ponies, which are almost worthless.

Nez Percé reservation, now existing only in name, is situated in the northwestern part of Idaho, in Nez Percé county, a strip also extending into Idaho and Shoshone counties. The original area comprised 746,651 acres, but in 1895, 542,000 acres were ceded to the Government, and most of the remainder was allotted to the Indians. The allotted land is well adapted to both agriculture and grazing, yielding abundantly without irrigation all cereals, fruits, and vegetables grown in the Northwest. A fine belt of pine, spruce, and fir

timber crosses the reservation, 30,000 acres of which have been reserved for the use of the Indians.

Allotments among the Nez Percé met with vigorous opposition from one-third of the tribe, who owned large herds of stock, and felt that their interests would be injured. Each individual Indian received 80 acres of agricultural land or, in some instances, 160 acres of grazing land.

The Nez Percé (Pierced Noses), of Shashaptian stock, is the only tribe on this reservation. As a tribe they are an earnest, energetic, and progressive people, and are gradually dropping tribal customs for those of civilization. They were among the first tribes in the Northwest to be influenced by civilization, and are now capable of supporting themselves by farming and stock raising. From the rental of lands, they receive more than \$20,000 a year. At present 68.0 per cent of their subsistence is furnished by cash annuity.

Wheat, oats, barley, and hay are the principal crops raised. The dry, hot winds, prevalent in some sections, were detrimental to successful crops in the census year, and large tracts of wheat and barley were cut green for hay. The majority of Indian farmers cultivated from 10 to 30 acres each, some few as high as 80 and 100, and one cultivated 300 acres. A number have orchards of apple, peach, pear, plum, and cherry trees, and gardens are found here and there, a few of which contain small fruits.

The Indian population of Washington, although not as large as that of several other states, is composed of numerous small tribes of several different linguistic stocks, principal among which are the Salishan, Shashaptian, and Chinookan. The tribes along the coast were fishermen and fur traders, their catches including the whale and seal. Those among the mountains lived on game, fish, and berries. Many tribes have now taken up agriculture and nearly all are self-supporting.

Nine reservations reported agriculture in 1900, namely, Colville, Lummi, Makah, Muckleshoot, Quinalt, Spokane, Swinomish, Tulalip, and Yakima. Colville reserve, embracing an area of 4,374 square miles, is situated in Ferry and Okanogan counties. The land is well adapted to agriculture and stock raising, and most tribes here have made commendable progress in these occupations. The population of Colville reservation in 1900 was 1,477. Chief Joseph's band of Nez Percé are very nonprogressive and receive 50.0 per cent of their subsistence from Government rations.

Spokane reservation, whose agricultural statistics were enumerated with those of Colville, lies in Stevens county and contains an area of 240 square miles. The Spokane are, as a tribe, thrifty and industrious, but need assistance in agricultural implements and machinery. All are practically self-supporting, and Government rations furnish but 5.0 per cent of their subsistence.

The principal crops of the Indian farmers at Colville

and Spokane reserves are wheat and oats, though some raise a few acres of corn. Their hay consists largely of grains cut green. In addition to their pony stock, which the majority raise quite extensively, a number of farmers own considerable numbers of range cattle.

Lummi reservation, with an area of 3 square miles, is situated in Whatcom county. These Indians are bands of Dwamish, Etakur, Lummi, Skokomish, and Swinomish tribes, with a total population in 1900 of 359. They do some fishing and logging in addition to tilling the soil, and are self-supporting. The Indian farmers raised small patches of oats, wheat, tame hay, potatoes, and other vegetables. Nearly all owned orchards of apple, pear, plum, and cherry trees, and a few also raised small fruits. Their live stock consists of good American farm horses, small flocks of sheep, and a few cattle.

Makah reservation in Clallam county, fronting on the ocean, has an area of 36 square miles. The Makah and Quileute Indians on this reserve, with a population in 1900 of 371, are self-supporting but very poor. A few reported small herds of horses and cattle, but as grass is very limited they can not carry on stock raising extensively.

Muckleshoot reservation contains an area of 5 square miles and is situated in King county. The Muckleshoot are a self-supporting agricultural people, numbering 146 in 1900. Their principal crops were oats, wheat, and tame hay. Potatoes were also quite generally raised, while a few had small fruits and orchards of apple, plum, and cherry trees. The tracts cultivated by these farmers contained from 5 to 30 acres. Their live stock consisted chiefly of a few horses, Indian ponies, cattle, and sheep.

Quinalt reserve, embracing an area of 350 square miles, is located in Chehalis county. The larger portion of the land is broken, mountainous, and thickly covered with underbrush; while the only cultivable tracts lie along the river bottoms. The Hoh, Quaitso, and Quinalt Indians inhabiting this reservation numbered 193. Salmon fishing and freighting are their principal occupations, and they also make considerable money in the hop fields. Agriculture is engaged in to a limited extent, the farmers raising only small quantities of potatoes and tame hay. Most of them owned work horses or ponies and some had a few beef cattle and dairy cows. They are all self-supporting.

Swinomish reservation has an area of 11 square miles, and is situated in Skagit county, on Fidalgo Island. The Indians are practically self-supporting, obtaining their living by fishing and tilling the soil. In 1900 the population was 275.

Oats and tame hay are the crops of the Swinomish farmers, their acreages in oats ranging from 10 to 40 acres each. Their live stock consisted of a few horses, sheep, and dairy cows.

Tulalip reservation, having an area of 14 square

miles, is located in Snohomish county, on Puget Sound. The reserve is for the most part heavily timbered, requiring considerable energy and money to clear it. As a rule, the Indians are not agriculturists. They are practically self-supporting, rations being issued only to the aged and helpless. The Indian farmers raised in 1899 a few acres of tame hay, potatoes, and garden vegetables, and some also cultivated small fruits. Nearly all had orchards of apple, pear, plum, and cherry trees. Horses, a few sheep, and beef cattle largely comprised their live stock.

Yakima reservation, embracing an area of 1,250 square miles, is situated in the south central part of Washington. Approximately two-thirds of this tract is a dry, sagebrush desert, with no facilities for irrigation. It is possible to irrigate the remainder of the reserve, and the Indians have been allotted on this portion. Here are located bands of Klikitat, Paloos, Topnish, Wasco, and Yakima Indians, numbering in all 2,219. Agriculture and stock raising are their principal occupations. Where irrigation is practiced, the Indians are making splendid progress in agriculture. Under the direction of a surveyor they have constructed a large number of ditches, and utilize all available water. They are accumulating stock, breaking more land, and building comfortable homes.

The principal crops at Yakima were oats, wheat, and barley, in the order named. The hay crop consisted of wild grasses, alfalfa, other tame grasses, and grains cut green.

A number of Yakima Indians have accumulated considerable herds of range cattle, while a few have large flocks of sheep. Their herds of Indian ponies, which have heretofore been salable, are being disposed of at \$2.50 a head. The larger ones are retained and gradually improved by cross-breeding with horses of better grade.

Oregon presents a splendid field for the ethnologist. In that state to-day there exists the remnants of a large number of tribes, most of them aborigines of this region, and representing more than ten distinct linguistic stocks. They have nearly all been collected upon five reservations—Grande Ronde, Klamath, Siletz, Umatilla, and Warm Springs—while some still live along or near the Columbia River, and depend upon fish and game for their support.

Nearly all reservation Indians are self-supporting, and rations are issued only to the aged, blind, and helpless. Many Oregon Indians have made considerable progress in agriculture and stock raising, while others still depend upon fish, game, and berries for a considerable portion of their subsistence. The gathering and preparing of Chittem bark (Cascara sagrada), for which there is a good market, furnishes profitable employment for many at Grande Ronde and Siletz, where it is found in abundance.

Grande Ronde reservation is situated in the northern part of Oregon, directly east of the Coast Range, in Polk and Yamhill counties, and contains an area of 93½ square miles. Approximately 10,000 acres of land, lying in the small valleys along the tributaries of the Yamhill River, are cultivable and fairly fertile.

The Indians at Grande Ronde represent the remnants of nine small tribes of at least three different linguistic stocks—Clackamas, Cow Creek, Lakmiut, Marys River, Rogue River, Santiam, Umpqua, Wapeto, and Yam Hill. In 1900 they numbered in all 402, the majority of whom were energetic and self-supporting. Oats and wheat are the principal crops, and small areas seeded to these cereals were also cut green for hay. A number cultivated vegetable gardens and patches of small fruits, while orchards of apple, pear, plum, and other fruit trees were very common. The majority of the Indian farmers had from 10 to 80 acres each under cultivation in the census year, and a few had as high as 150 acres. Stock raising is carried on only on a small scale in connection with their other farming operations.

Klamath reservation lies in the high plateau region of south central Oregon, east of the Cascade Mountains, in Klamath and Lake counties, and embraces an area of 1,650 square miles. This tract affords excellent facilities for stock raising, the fertile lowlands along lakes, rivers, and marshes providing an abundance of hay and pasturage. On account of the altitude, which averages over 4,000 feet, early frosts make agriculture very uncertain, but with irrigation the arid uplands would produce splendid crops of alfalfa. A large portion of the land is well covered with pine timber, which in time will be of great value.

The tribes here are the Klamath, Modoc, Paiute, and Pit River, with a total population in 1900 of 1,136. The Klamath and Modoc, of Lithuanian stock, constitute the larger part of the population, having intermarried for so many years that they now form a single band. They are progressing in agricultural pursuits, and produce increasing crops of hay; stock raising, however, is their principal source of income. The able-bodied have been self-supporting for a number of years, and rations are issued only to the aged and helpless.

In the census year frost destroyed the growing crop of cereals at Klamath, and wheat, oats, and rye were cut green for hay, together with large quantities of wild grass.

Siletz reservation is located in western Oregon, in Lincoln county. It exists as such only in name, as the present area, 80 square miles, has been allotted, except 5 square miles of timber land which was reserved for the tribe. The soil is a rich, sandy loam, producing abundantly with little labor, and has a luxuriant growth of native grasses which provide ample feed for stock the entire year.

The Indians at Siletz number 479 and represent the

remnants of 31 different tribes, whose tribal lines have been obliterated by intermarriage. They are intelligent and industrious, and nearly all are self-supporting. Government rations constitute but 6.0 per cent and annuity payments but 12.0 per cent of their subsistence.

Their principal crop was oats, which is usually the only cereal grown. The acreage in oats and wild hay was considerably less in the census year than in the previous year, due in part to the late spring. The areas under cultivation ranged from 5 to 40 acres.

Umatilla reservation has an area of 123 square miles, and is situated in the northeastern part of Oregon, in Umatilla county. A large portion of this tract is well adapted to wheat raising, and the remainder is timber and grazing land.

Three tribes, the Cayuse (Wailatpuan), Umatilla, and Wallawalla (Shashaptian) are located on this reserve, and the total population in 1900 was 1,397. Advancement in agriculture is noticeable at Umatilla, though many of the Indians still prefer to rent their allotments rather than farm for themselves. Only 20 of the 65 farms on the reserve are operated by Indians, the others being leased to white men, or allotted to the families of "squaw men." Wheat is the principal crop, the other cereals raised being barley, corn, and oats. The majority of the Indian farmers cultivated from 50 to 100 acres each. A few Indians have undertaken stock raising, but they have not as yet accumulated a sufficient number of cattle to realize any large profit from this industry.

Warm Springs reservation, so called from the springs along one of the streams flowing through the reserve, lies in Wasco and Crook counties in the north central part of the state, and has an area of 725 square miles. Most of the land is rough, mountainous, and of poor quality, though a portion is well adapted to stock raising, the native grasses being strong and fattening. There is sufficient agricultural land along the water courses to support the present population, and the rich soil produces an abundance of grains, grasses, and vegetables.

The tribes at Warm Springs are the Des Chutes, John Day, Paiute, Tenino, Warm Springs, and Wasco, mostly of Shashaptian stock, and numbered 837, in 1900. They are industrious, and some advancement has been made in habits and methods, especially among the Wasco and Tenino tribes.

Their principal crops are wheat, oats, and hay. The season of 1899 was favorable for agriculture at Warm Springs, and the acreage cultivated by the Indians was much greater than in any preceding year. The vegetable crop was not generally reported. The majority of the Indian farmers each had from 20 to 80 acres under cultivation, and a number owned range cattle.

The Indians of California are of at least fourteen different linguistic stocks. The Government in dealing with the California tribes did not follow the policy

pursued with the wild Indians of the plains, and no treaties were made with them and no remuneration paid for lands acquired by white settlers. United States patents failed to include a clause excepting lands occupied by Indians, although such a clause was included in Mexican grants.

None of the California tribes knew anything of agriculture until the advent of the Spaniard, and, with the exception of the Mission Indians, they received their first instructions after they were taken in charge by the United States Government. Those near the coast and rivers lived principally upon fish, while in the interior the acorn and other nuts, mesquite beans, roots, and game furnished the food supply.

At the present time the larger number are located on 26 reservations, namely: Hupa Valley, Round Valley, Tule River, Yuma, and 22 Mission reservations. They are nearly all self-supporting, and rations are issued only to a few who are old and infirm. They are in advance of the Indians of the plains in intelligence and civilization.

Hupa¹ Valley reservation, consisting of the reservation proper and the Lower Klamath "Connecting Strip," is located in Humboldt county, in the extreme northwestern part of California. The reservation proper comprises an area of 155 square miles. Hupa Valley, in which the Indians have made their home, is a narrow valley from one-half to one mile in width and 6 miles in length, shut in by mountains from 2,600 to 3,000 feet high, and is watered by Trinity River. The climatic conditions influenced by the presence of these lofty mountains are such that the cultivation of orchard fruits is made a profitable industry.

The land of the reservation proper is principally timber land, the total agricultural area being about 1,200 acres of level valley land, black and rich, and very productive. Individual holdings are from 3 to 8 acres, or an average of about 30 acres to a family.

The Hupa Indians, of Athapascan stock, with a few members of other smaller tribes, reside on the reservation proper. The Lower Klamath on the "Connecting Strip" bear no resemblance in language to the Hupa or to the Klamath of Oregon, and are of Litanian stock. The total Hupa and Klamath population in 1900 was 1,112, of which more than one-half are Klamath.

Practically every able-bodied man is engaged in farming or stock raising. As a tribe they are industrious and self-supporting, rations being issued only to the old and infirm. Their surplus in most instances has been invested in additional stock, implements, or home improvements. The Lower Klamath have taken their allotments and have received patents. The arable land lies in small parcels of a few acres here and there, and on these the Indians have made their

gardens or planted a few acres of wheat or oats, which were the principal crops grown on the Hupa reservation. Of the 87 farmers, 73 possessed orchards of apple, peach, pear, and cherry trees.

Most of the Mission Indians are located on small reservations scattered over Riverside and San Diego counties in southern California, their name being derived from their connection with the Spanish missions established in the latter part of the eighteenth century. Among them are found representatives of a number of different tribes. They are now divided into five bands, namely: Diegenes, Kawia, San Luis Rey, Serranos, and Temecula, names which do not mark tribal distinctions, but their proximity to the various individual missions bearing these names. Under the Spaniards, they were taught to till the soil and to support themselves by farming. The people of California, claiming that the Indians had no right to the public domain, seized the lands occupied by them. In 1875, and in subsequent years, tracts of land were set apart for their use by the Government, but these contain little arable land, and some are practically deserts. The drought of the last few years has worked great hardships among them, and having but little opportunity to carry on agriculture, they have taken an interest in stock raising in the few places where conditions are favorable. The nonproductive class is still dependent upon game and foods of the forest. They receive no rations from the Government, but the rent from grazing lands has helped somewhat to relieve their otherwise destitute condition. Their total population is estimated at 2,856.

In seasons with an average amount of rainfall, Agua Caliente, Injaha, Mesa Grande, Morongo, Pala, Pauma, Pratero, Rincon, and Santa Ynez reservations will produce crops sufficient to tide the Indians over the winter months. Coahuila, Los Coyote, and Santa Ysabel reservations lie in the mountains, the land being mostly grazing land, with a few scattered patches suitable for agriculture. The other reservations are practically worthless, being without irrigation. Morongo reservation, the largest and best of all, is provided with cement ditches constructed by the Government, while on other reservations where irrigation is carried on, the water is conducted in ditches of native construction.

There was almost a total failure of crops on all Mission reservations in the census year, Morongo alone reporting a scanty crop of wheat and very little corn. Most farms reported orchards and orchard products, peach, nectarine, apricot, pear, and apple trees being cultivated most extensively.

Round Valley reservation, embracing an area of 59 square miles, is situated in the northwestern part of California, in Mendocino county. The reservation contains a strip of level valley land, surrounded by numerous foothills which lead to lofty mountains

¹Spelling recently adopted by the Bureau of Ethnology and the Indian Bureau.

beyond. The valley land and the foothills, which are well adapted to grazing, constitute an excellent field for agricultural operations.

On this reservation are located the remnants of nine small tribes, namely: Clear Lake, Concow, Little Lake, Nomelaki, Pit River, Potter Valley, Redwood, Wailaki, and Yuki, with a total population in 1900 of 599. These Indians might well be classed as civilized, as nearly all are engaged in farming or stock raising, rations being issued only to the old and infirm. Those of the younger generation are progressive, and their farms are well supplied with stock and equipped with modern machinery. These Indians now employ their own herders, blacksmiths, carpenters, and other mechanics.

All the land suitable for agriculture has been allotted, giving about eight acres to each person, or an average of about 40 acres to a family. The soil is very rich and produces abundantly, while the foothills furnish a plentiful supply of hay and grass for the stock. A large tract of land on the eastern part of the reservation is under water most of the year, involving a loss of hundreds of acres of good agricultural land.

Wheat is the principal crop raised by the Round Valley Indians, although corn, oats, and barley are also grown. In the census year large areas of wheat which had been affected by rust, were cut green for hay, and many acres of wild grass were also cut. Garden produce was raised quite extensively, melons and cabbages being the principal vegetables reported.

Small orchards of apple, pear, peach, plum, and cherry trees were owned by a number of Indians. The great drawback to profitable farming is the distance from a market, and the general practice, therefore, is to feed the excess produce and market the stock. Nearly every farmer has a number of cattle, and some have large herds. The horses reported are used in connection with the farms, and are of a better stock than the usual Indian pony. Swine and chickens are found on the majority of farms, but little attention is given to dairying.

Tule River reservation, located in Tulare county, in the south central part of the state, embraces an area of 76 square miles. The land is mountainous, the area suitable for agriculture lying in the mountain gorges or valleys, and comprising less than 250 acres.

On this reservation are located the remnants of a once powerful tribe, the Tule, and a few Kings River, Monache, and Tehon Indians, numbering in all 143. These Indians are practically self-supporting and receive no aid from the Government. Stock raising is their prin-

cipal source of income, and during certain seasons of the year many find profitable employment as sheep-shearers.

The crops of the Tule Indians consisted of corn, wheat, barley, alfalfa, and grains cut green for hay. The vegetables raised were principally melons, squashes, sweet corn, and dry beans. A number of Indians had orchards of apple, peach, pear, plum, cherry, and apricot trees.

Some of the farms are well stocked with range cattle, but a number have only small herds of Indian ponies. Many have herds of swine, and a few have goats, while domestic fowls are raised on a number of farms.

The Yuma reservation, with an area of 71½ square miles, is situated in the southeastern extremity of California. The Yuma Indians, of Yuman stock, are the most primitive of the California tribes in manners and customs. Physically they are erect and well proportioned, and possessed of great powers of endurance; but intellectually they are in a low state of civilization, still clinging tenaciously to the superstitions and customs of their race. The population of the Yuma reservation in 1900 was 817.

Their food consists largely of fish and the mesquite bean, which grows abundantly on the reservation. The pod of the mesquite bean, when pulverized, furnishes a flour from which a number of palatable dishes are made.

The Yuma work well under instruction, and many who have found employment on the railroad have become good workmen. Large quantities of wood, for which they find a good market at Yuma, are cut from the reservation each year.

Without a system of irrigation, the land of the reservation is almost worthless for agricultural purposes. The Colorado River, receding after its annual overflow, leaves a section of very fertile bottom land, which the Indians plant in their primitive manner, by digging holes in the ground about 10 inches in depth and 3 feet apart, and putting in the seed. They plant in this way a strip of from 50 to 100 acres, but give the crops no attention from the time they are planted until harvested; consequently only a very small portion ever matures. In an average year they raise about 100 bushels each of corn, wheat, and barley; also a small quantity of melons and squashes. Their crop in the census year was a total failure, and for this reason no reports of their agriculture or live stock were returned. The water furnished by the overflow of the river, if properly distributed, would insure fairly good crops. The Yuma own no cattle, their live stock being limited to a few horses, mules, and burros.