



Land utilization on the Crow Indian reservation
by Clarence S Runyan

A THESIS Submitted to the Graduate Committee in partial fulfillment of the requirements for the Degree of Master of Science in Agricultural Economics
Montana State University
© Copyright by Clarence S Runyan (1939)

Abstract:

This thesis is a brief summary of the known history of the Crow Indian Nation beginning with the division of the tribe from the Gros Ventre Indians, but more especially after they were placed on the Reservation by the United States Government. In the first chapter a careful study is made of the progress the tribe has made toward civilization. Most of the study is given to the agricultural pursuits and the efforts of the tribe to become a self-supporting people after adopting the civilization of the white man.

In chapter two a careful survey is made of the surface, the climate and the natural resources of the Reservation. This includes the location, a survey of the topography, a study of geology and of drainage. Charts and tables are given relative to climate, precipitation, temperature and length of the growing season. A review of the natural resources is given including the vegetative covering, the water supply, the possibilities of hydroelectric power and the potential mineral resources of the region.

The present administrative policy is carefully analyzed, followed by a discussion of the present welfare of the people relative to living conditions, economic well being, land tenure and utilization, as well as the employment of the people. This survey shows that there is a great need for an improvement of living conditions. Also that something must be done to prevent the ownership of the land from being broken down into so many minute heirship holdings.

Finally, a plan is presented for the complete rehabilitation of the Crow Reservation. This plan shows how it is possible for the Indian people to become entirely self-supporting, to utilize their entire land holdings, and in the due course of time to recover ownership of most of the alienated land within the present boundaries of the Reservation. By the accomplishment of this goal it is shown that the living conditions of the Crow Indians will be equal to that of their white neighbors.

LAND UTILIZATION ON THE CROW INDIAN RESERVATION

by

CLARENCE S. RUNYAN

A THESIS

Submitted to the Graduate Committee
in partial fulfillment of the requirements
for the Degree of Master of Science
in Agricultural Economics at
Montana State College

Approved:

R.R. Renne
In Charge of Major Work

R.R. Renne
Chairman, Examining Committee

J.B. Atwell
Chairman, Graduate Committee

Bozeman, Montana
December, 1939

MONTANA STATE COLLEGE
LIBRARY
BOZEMAN

378
82
cop 2

MAIN LIB.
N378
R876
cop. 2

169 ✓

TABLE OF CONTENTS

	Page
LIST OF ILLUSTRATIONS.....	6
ABSTRACT.....	8
CHAPTER I. EARLY HISTORY OF THE CROW INDIANS.....	9 ✓
<u>Origin and Customs of the Tribe</u>	9
<u>Securing Food</u>	10
<u>Friendship for the White Man</u>	12
<u>Personal Characteristics</u>	13
<u>Laws and Treaties</u>	13
<u>Agency Reports as to Status and Progress of the Crow Indians</u>	23
<u>Summary of Chapter One</u>	30
CHAPTER II. SURFACE, CLIMATE, AND NATURAL RESOURCES OF THE CROW INDIAN RESERVATION.....	31
<u>Extent and Location</u>	31
<u>Surface and Geology</u>	31
<u>Drainage</u>	35
<u>Climate</u>	37
Precipitation.....	37
Temperature.....	38
Growing Season.....	38
Winds.....	42
<u>Natural Resources</u>	42
Vegetation.....	42
Hydro-electric Power.....	44
Water supplies.....	44
Mineral Resources.....	47
<u>Summary of Chapter Two</u>	47

19-20 —

Miss. Grad. Committee cop. 1



ROBERT YELLOWTAIL

First Indian Superintendent of the Crow Reservation

	Page
CHAPTER III. LIVING CONDITIONS AND WELFARE OF THE CROW INDIANS.....	48
<u>Population</u>	48
<u>Administration</u>	52
<u>Extension</u>	52
<u>Forestry</u>	53
<u>Land</u>	53
<u>Finance</u>	53
<u>Roads</u>	55
<u>Irrigation</u>	55
<u>Law and Order</u>	56
<u>Emergency Relief Administrations</u>	56
<u>Medical and Hospitalization</u>	56
<u>Education</u>	58
<u>Adult Education</u>	60
<u>Societies and Religious Organizations</u>	60
<u>Summary of Chapter Three</u>	66
CHAPTER IV. LAND TENURE AND PRESENT UTILIZATION OF THE CROW INDIAN RESERVATION.....	66
<u>The Heirship Problem</u>	67
<u>Complexities of Equities</u>	70
<u>Examples of Sub-Division of Equities</u>	70
<u>Accumulation of Equities</u>	74
<u>Agriculture</u>	75
Hay, Cereals, and Beets.....	79
The Garden Project.....	79
Grazing Land.....	79

	Page
Leasing.....	82
Types of Leases.....	86
<u>Individual Indian Money Control</u>	86
<u>Irrigated Lands</u>	87
<u>Dry Land Areas</u>	89
<u>Property and Finance</u>	89
Property Values.....	89
Indian Homes.....	96
Credit and Reimbursable.....	96
Relief and Labor Income.....	100
<u>Summary of Chapter Four</u>	103
CHAPTER V. THE FUTURE UTILIZATION OF THE CROW INDIAN RESERVATION.....	104
<u>Consolidation of Land Holdings</u>	106
Partition of Holdings by Land Clerk.....	107
Specific Bequests in Wills.....	108
Tribal Land Purchases.....	115
Purchase by One Heir.....	116
<u>Cattle Purchase</u>	116
The Plan.....	117
<u>Individual Rehabilitation</u>	121
Ideal Family Set-Up.....	123
Ideal Rotation for Irrigated Lands.....	123
The Operation of Dry Farm Land.....	124
Pastures in Irrigated Farming Areas.....	125
Spare Time Work.....	125
Farm Shelter Belts.....	125
Subsistence Farming.....	125
Livestock Association.....	126
Repayment of Loans.....	127
<u>Civilian Conservation Corps--Indian Department</u>	128
<u>Leasing</u>	128

	Page
<u>Education</u>	129
Future School Curriculum.....	129
Youth Organizations.....	130
Adult Education.....	132
<u>Religious Organizations</u>	132
<u>Summary of Chapter Five</u>	132
CHAPTER VI. CONCLUSIONS AND RECOMMENDATIONS.....	133
ACKNOWLEDGMENTS.....	136
BIBLIOGRAPHY.....	137

LIST OF ILLUSTRATIONS

	Page
Figure 1.--An Indian woman "jerking" buffalo meat in order to preserve it for future use.....	11
Figure 2.--Character studies of typical Crow Indians.....	14
Figure 3.--Anita Yellowtail, daughter of Superintendent, Robert Yellowtail.....	15
Figure 4.--Original Crow Indian Reservation recognized by the United States Government by treaty in 1851, containing 38,531,174 acres.....	17
Figure 5.--Map of Crow Indian Reservation.....	32
Figure 6.--Population status of Crow Indians by sex and blood, 1938.....	49
Figure 7.--Age groups of Indians, Crow Indian Reservation, 1938.	50
Figure 8.--The ranges are under the careful supervision of the United States Indian Forest Service.....	54
Figure 9.--Distribution of children of school age, Crow Indian Reservation, 1937.....	59
Figure 10.--Number of Indians belonging to societies, Crow Indian Reservation, 1937.....	62
Figure 11.--Part of the parade at the annual Crow Fair.....	63
Figure 12.--Land status of Crow Indian Reservation, 1938.....	69
Figure 13.--Land utilization on Crow Reservation, 1938.....	76
Figure 14.--Land classification on Crow Reservation, 1938.....	78
Figure 15.--Typical Crown Indian gardens.....	81
Figure 16.--Value of Indian owned livestock on Crow Indian Reservation. 1937.....	83
Figure 17.--Value of farm products sold by Crow Indians, 1937...	84
Figure 18.--Source of income of Crow Indian Reservation, 1937...	88
Figure 19.--Range land on Crow Reservation.....	90

	Page
Figure 20.--A typical farming area on the Crow Indian Reservation.....	91
Figure 21.--Value of Indian owned livestock on Crow Indian Reservation, 1937.....	93
Figure 22.--Value of farm produce grown by Crow Indians, 1937....	94
Figure 23.--Indebtedness of Crow Indians, 1934.....	95
Figure 24.--Material and number of homes on Crow Indian Reservation, 1934.....	97
Figure 25.--Typical Indian "shacks" near the edge of Crow Agency.	105
Figure 26.--An Indian will.....	111
Figure 27.--An Indian will.....	113
Figure 28.--Range land on the Crow Reservation.....	119
Figure 29.--An inexpensive house build for Mark Realbird with the use of Crow Reimbursable Revolving Fund.....	122
Figure 30.--A group of Indian 4-H Club members attending the Club Camp.....	131
Figure 31.--Two 4-H Club members with calves.....	131

LAND UTILIZATION ON THE CROW INDIAN RESERVATION

ABSTRACT

This thesis is a brief summary of the known history of the Crow Indian Nation beginning with the division of the tribe from the Gros Ventre Indians, but more especially after they were placed on the Reservation by the United States Government. In the first chapter a careful study is made of the progress the tribe has made toward civilization. Most of the study is given to the agricultural pursuits and the efforts of the tribe to become a self-supporting people after adopting the civilization of the white man.

In chapter two a careful survey is made of the surface, the climate and the natural resources of the Reservation. This includes the location, a survey of the topography, a study of geology and of drainage. Charts and tables are given relative to climate, precipitation, temperature and length of the growing season. A review of the natural resources is given including the vegetative covering, the water supply, the possibilities of hydroelectric power and the potential mineral resources of the region.

The present administrative policy is carefully analyzed, followed by a discussion of the present welfare of the people relative to living conditions, economic well being, land tenure and utilization, as well as the employment of the people. This survey shows that there is a great need for an improvement of living conditions. Also that something must be done to prevent the ownership of the land from being broken down into so many minute heirship holdings.

Finally, a plan is presented for the complete rehabilitation of the Crow Reservation. This plan shows how it is possible for the Indian people to become entirely self-supporting, to utilize their entire land holdings, and in the due course of time to recover ownership of most of the alienated land within the present boundaries of the Reservation. By the accomplishment of this goal it is shown that the living conditions of the Crow Indians will be equal to that of their white neighbors.

CHAPTER I. EARLY HISTORY OF THE CROW INDIANS

Origin and Customs of the Tribe

The Absaroka or Crow Indian Tribe is a division of the Gros Ventres-Sioux Indians of the Great Plains. It is thought by historians that the Crows separated from the Gros Ventres about the time of the discovery of America by the white man. The Absaroka band is said to have taken their name from a now extinct large forked-tail bird of the hawk family. The white man called them Crows because of a misinterpretation of the Indian name Absaroka.

Shortly after separating from the Gros Ventres the Crows again divided into two distinct bands; one was called the River Crows, while the other was the Mountain Crows. The River Crows claimed the region between the Missouri River on the north and the Yellowstone on the south. The Mountain Crows claimed the region south of the Yellowstone River back toward the Big Horn Mountains. These two bands were always allied in their wars and there was constant intermarriage and a very close friendship between them at all times.

Located as they were in the heart of a great wild game region, the Crows were in constant warfare with neighboring tribes for possession of the choice hunting grounds. The Sioux, the Blackfeet, and the Flathead tribes were hereditary enemies, while the Gros Ventres and the Nez Perce tribes were usually considered friends of the Crows.

Securing Food

Inasmuch as the region occupied by the Crow Tribe was well supplied with wild game and fish, the Indians subsisted mainly from the hunt. Of course, the bison or American buffalo was the main source of food. This great animal was utilized for food and the skin was used in making tepees, wearing apparel, ornaments, and weapons. Before the days of the horse and firearms, it was a feat of resourcefulness and bravery to supply the needs of the family with this useful animal. Many ingenious methods were used in killing the bison. One was to stampede the herd over a sheer precipice thus killing the animals or injuring them so that they could be slaughtered by the hunter. Another way was for the Indians to cover themselves with the skins of wolves and creep up on a straggler of the herd and kill it with the bow and arrow. It is said that an arrow could be shot with such force that it would completely penetrate the body of the buffalo. Smaller animals and birds were trapped or snared to complete the supplies of meat. Any surplus meat was always preserved for future use. The favorite method was by jerking or drying in the sun. (See figure 1) The meat was cut into thin strips, and hung in the sun and dried until it was hard as a rock. When in this condition it was easily carried and could be kept indefinitely. The buffalo hides were carefully dried or tanned and utilized in many different ways.

The Crows also made use of the many different kinds of wild berries and fruits that grew so abundantly in this region. These fruits were either eaten fresh or were dried for use during the winter season. One



Figure 1.--An Indian woman "jerking" buffalo meat in order to preserve it for future use.

of the favorite means of preserving the fruits and berries was to crush them with stones and then make them into "patties" and dry them in the sun until they were almost as hard as stones. The Indian turnip or wild turnip was extensively used. This vegetable was cut into strips, braided into long strands and hung in the tepees until needed. The roots and barks of various trees were also used in times of need. Much of the common vegetation that the white man considers worthless or noxious was used by the Indians. For instance the root of the common Spanish Bayonet, or yucca, that is found growing on all the hillsides, was made into soap by the Indians. Many others, such as the bitterroot, wild celery, wild onions, wild carrot, wild potato, buffalo berries, sand or ground cherries, camas, wild parsnip, and barks of various trees were used for food, for medicine, for tanning skins, or in countless other ways.

Friendship for the White Man

The first contacts that the Crows had with the white man were with the French trappers and explorers. Among the earliest records that can be found of the Crows are those of the Lewis and Clark expedition soon after the Louisiana Purchase was made. Because they were hard pressed by their Indian enemies, the Crow Indians were always very friendly to the white man and heralded them as their deliverers from the Sioux. The Crow Tribe has always remained friendly to the United States Government, and there is no place in history where, as a tribe, they have fought against the army of the United States.

Personal Characteristics

The early explorers always spoke of the wonderful physique of this tribe. In Sanders, "History of Montana", written about 1890, the Crows are spoken of as follows:

"The Crows, Absaroka, or Beaux Hommes, were in the early days a nation renowned for physical beauty and moral integrity. Though they are still the most populous tribe in Southern Montana, they have degenerated in number and in physique. Fifty years ago they were estimated to number 5,000 souls, in 1887, they had decreased to 2456." 1/

Father De Smet, a Catholic missionary, visited the Crows in 1840, and reported them very anxious to receive other missionaries to their country.

A visual character study of typical Crow Indians is made in figure 2, which shows two of the Crow leaders, Yellowbrow or Strong Wellknown and Bull over the Hill. The study of Yellowbrow was recently taken near his home in Lodge Grass, Montana. The likeness of Anita Yellowtail is shown in figure 3, as she portrays the younger generation of the Crow Indians.

Laws and Treaties

Since the acquisition of the territory in the Louisiana Purchase in 1803, it has been necessary for the United States to make several treaties with the Crow Indians and to "enact numerous laws regulating Indian affairs."

1. The first recognized treaty 2/ between the Crow Indian Tribe

1/ Sanders, Helen Fitzgerald, History of Montana, Volume I, The Lewis Publishing Company, Chicago and New York, 1913, page 163.

2/ Kappler, Charles J., Indian Affairs Laws and Treaties, Vol. II, U. S. Government Printing Office, Washington, D. C., 1904, page 244.



Figure 2.--Character studies of typical Crow Indians.



Figure 3.--Anita Yellowtail, daughter of Superintendent Robert Yellowtail.

and the United States Government was made in 1825. This treaty was merely a recognition by the ~~tribe of the supremacy of the United States.~~ It gave licensed traders a right to do business with the Indians and guaranteed the tribe protection from their enemies.

2. The next treaty of importance was the Treaty of Fort Laramie in 1851, 3/ between the United States and representatives of the various tribes of the Great Plains regions. The purpose of this treaty was to arrange a passageway for the white men through the Plains to the coast and to the mining fields of the West. It fixed the boundaries of the Crow Nation and provided indemnities for any damages suffered by the tribe. Two clauses of the treaty are as follows:

"Article 5.

The territory of the Crow Nation commencing at the mouth of the Powder River on the Yellowstone, thence up Powder River to its source; thence along the main range of waters of the Yellowstone River; thence down the Yellowstone River to the mouth of Twenty-Five Yard Creek; thence to the Headwaters of the Muscle Shell River, thence down the Muscle Shell to its mouth thence to the headwaters of Big Dry Creek and thence to its mouth."

The size of this territory in comparison to the state of Montana is shown in figure 4. This vast area contained what is now Park, Sweetgrass, Stillwater, Carbon, Yellowstone, Big Horn, Treasure, Rosebud, most of Powder River, Custer, and Garfield Counties, besides a large area of Wyoming

"Article 7.

"In consideration of treaty stipulations, and for the

3/ Kappler, op. cit., p. 595

MONTANA

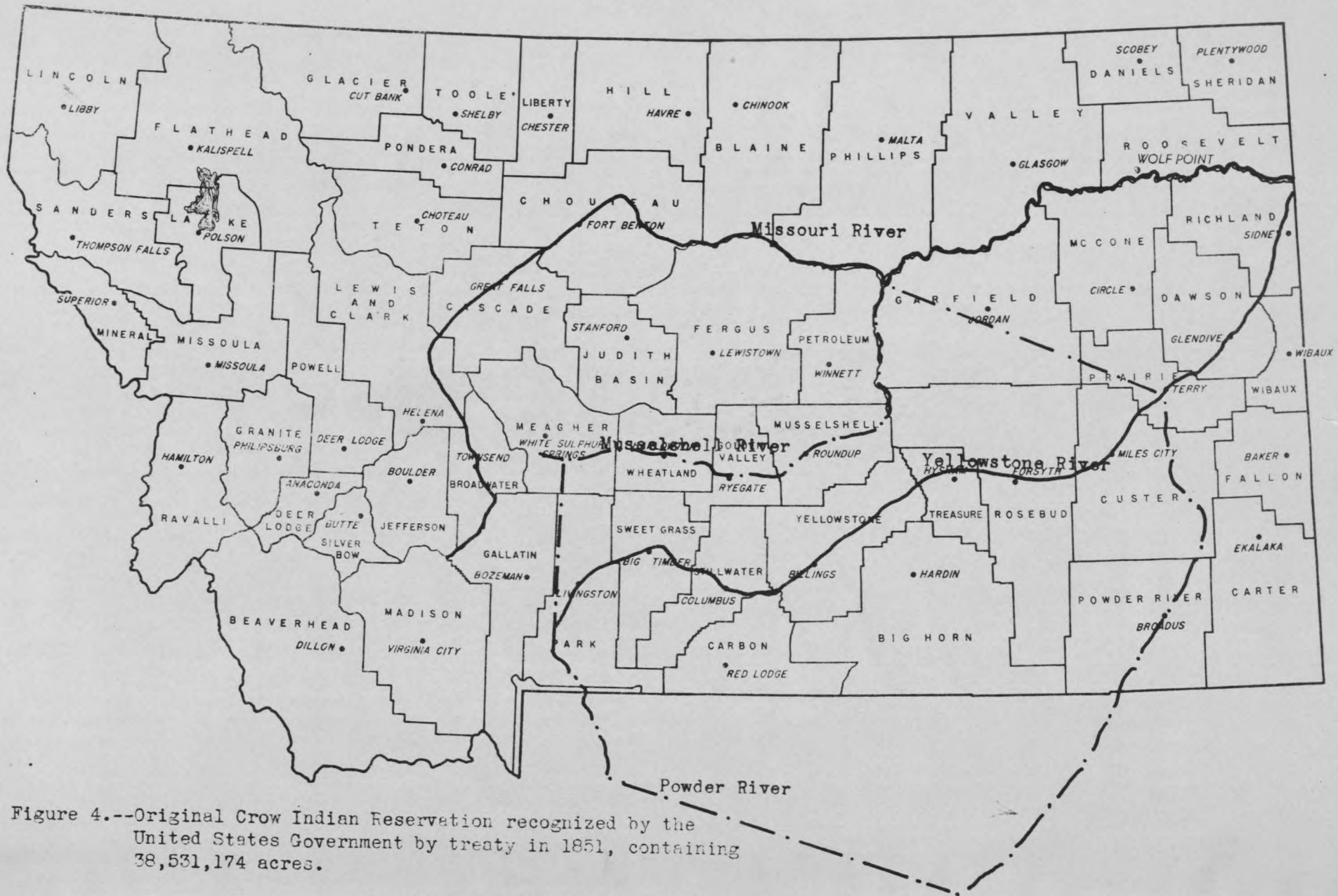


Figure 4.--Original Crow Indian Reservation recognized by the United States Government by treaty in 1851, containing 38,531,174 acres.

damages which may have or may occur by reason thereof to the Indian nations, parties hereto, and for their maintenance and the improvement of their moral and social customs, the United States bind themselves to deliver to the said Indian nations the sum of fifty thousand dollars per annum for the term of ten years, with the right to continue the same at the discretion of the President of the United States for a period of not exceeding five years thereafter, in provisions, merchandise, domestic animals, and agricultural implements, in such proportions as may be deemed best adapted to their condition by the President of the United States, to be distributed in proportion to the population of the aforesaid Indian nations."

Until the territory was thickly enough settled by the white people, the entire country was under a military government. As a general thing this authority was lenient and just. Everything possible was done to induce the tribes to live together in peace, and to work and be self-supporting. In 1866, Newton Edmunds, as General Superintendent of Indian Affairs, for the Montana Territory, reported as follows: 4/

"These tribes, Crows and Gros Ventres, expressed a wish to settle at the same point on the left bank of the river immediately above the mouth of Milk River in Montana Territory-- I would recommend that they be allowed an agent, and that agency buildings be provided for them at the point selected by them for a home. They will do little or nothing at present in the way of cultivating the soil."

In the early days everything possible was done to keep the different tribes from wandering from place to place as they had been in the habit of doing, thus causing anxiety and fear among the settlers. The great amount of game on the plains at that time always gave the tribes an excuse to leave their selected agency to hunt. For this reason they were constantly coming in contact with the whites. In order to rid themselves of this constant menace of the Indian incursions, the settlers

4/ Report of Commissioner of Indian Affairs to the Secretary of the Interior, U. S. Government Printing Office, Washington, D. C., 1866, page 179.

and the soldiers at the army posts set about a systematic campaign to kill off all buffalo and other game on the plains. This campaign was highly successful, and in a few years there was but little wild game left on the plains. This worked an untold hardship on the Indians and reduced them almost to the starvation point. From this time forward they were more or less under the care of the Federal Government and depended on it for their subsistence.

On the other hand the white people were encroaching very much on territory that had been set aside for the Indians. Miners, trappers, settlers, and adventurers were breaking every treaty provision that had been recognized by the Federal Government and the Indians were becoming very hostile. Therefore, in 1868, another great conference was called at Fort Laramie. The arrangements were very satisfactory to the Crow Tribe and a treaty was drawn up for the signature of the chiefs and the approval of Congress. This Treaty provided for:

a. The allotment of not more than 320 acres of land to the Indian head of the family who wished to begin farming.

"Article 6. 5/ If any individual belonging to said tribe of Indians or legally incorporated with them, being the head of a family, shall desire to commence farming, he shall have the privilege to select, in the presence and with the assistance of the agent then in charge, a tract of land within said reservation, not exceeding three hundred and twenty acres in extent, which tract when so selected, certified, and recorded in the "land book," as herein directed, shall cease to be held in common, but the same may be occupied and held in the exclusive possession of the person selecting it, and his family, so long as he or they may continue to cultivate it."

b. The allotment of 80 acres of land to any other Indian over 18 who wished to farm:

"Any person over eighteen years of age, not being the

5/ Kappler, op. cit., page 1008.

head of a family, may in like manner select and cause to be certified to him or her, for purposes of cultivation, a quantity of land not exceeding eighty acres in extent, and thereupon be entitled to the exclusive possession of same as directed."

c. For any Indian who wished to farm, aid in the form of seed, implements, one good cow, a yoke of oxen, and a bonus of \$100 the first year with \$25 annually for the three following years.

d. Clothing and monetary assistance to be given for ten years to all Indians engaged in agriculture.

e. Provision for a blacksmith and necessary repairs for farm machinery.

f. Food rations for all Indians over four years of age.

g. A prize of \$500 annually for three years to ten persons of the tribe growing the most valuable crops for the respective year.

h. The building of a school house and the establishment of a school for every thirty children of school age.

3. In 1882, a third treaty of great importance to the tribe was made. This provided for the sale to the United States of the portion of the Crow Reservation west of Clark's Fork River for certain valuable considerations. Some of these considerations were: 6/

a. The payment of \$30,000 annually for the next twenty-five years. This sum was to be expended for the erection of houses, for the improvement of all allotments, for the purchasing of agricultural seed, farming implements and live-stock, and for payment in cash as the President of the United States should direct.

b. The remainder of the reservation should be surveyed and divided among the Crows in severalty--not more than 160 acres of farming land and 160 acres of grazing land to each. The grazing land was to be held in trust for 25 years.

6/ Kappler, Charles J., Indian Affairs Laws and Treaties, U. S. Government Printing Office, Washington, D. C., Volume I, 1904, page 195.

4. On July 10, 1882, 7/ an act was ratified and accepted by the Crow Tribe, providing for the sale of a right of way to the Northern Pacific Railroad to traverse the reservation and to install necessary telegraph lines and other appurtenances of the railroad. The Crows received \$25,000 in consideration.

5. On December 8, 1890, 8/ the Crows agreed to sell to the United States Government for the sum of \$946,000 all the land from Clark's Fork River to the base of the West Pryor Mountains. The money was to be used as follows:

- a. \$200,000 to construct an irrigation system on the Little Horn and the Big Horn Rivers. As much as possible of the work was to be given to the Indians.
- b. \$25,000 to construct three flour mills.
- c. \$45,000 to purchase a Tribal herd of cattle.
- d. \$10,000 to be used in repairing Indian houses.
- e. \$552,000 to be set aside as a cash annuity fund to be paid at the rate of \$12 to each Indian annually for the next twenty years.
- f. Any balance was to be expended for the benefit of the Crows as deemed necessary by the Secretary of the Interior.

6. In 1893, 9/ the Crow Indians granted the Northern Pacific Railroad the right of way from a point on their existing railroad to the Big Horn River--thence up the Little Horn Valley to the south line of the Reservation. This road is known as the Burlington Railway.

7/ Kappler, Vol. I, op. cit., page 201.

8/ Ibid, page 432.

9/ Ibid, page 479.

7. In April 1904, 10/ the Crow Tribe agreed to sell to the United States Government a portion of the Reservation northwest of the Fort Custer Military Reservation. The consideration of \$1,150,000 was to be used for the benefit of the Crows in the building of irrigation systems, the purchase of livestock, the building of homes, and for cash benefits to be paid in annuities.

8. The Crow Act of June 1920, 11/ was a very important one, for the present administration of the Reservation is guided in large measure by its terms. A few of the important provisions are as follows:

a. A commission should be appointed by the Indian Office to determine the competency of the Crow Indians. The individual Indian would make application to this commission for the right to transact his own business without the assistance of the Government. The commission either approved the request or disapproved it. If the application was approved it gave the individual the right to lease his own land and that of his minor children without Office supervision.

b. The competent Indian was given the right to apply for a fee patent on one half of his own allotment. But as soon as the children became of age or reached the age of twenty-one, the child's land reverted to the supervision of the Indian Office.

c. A revolving fund was set up from funds in the Indian Office to the credit of the Crow Tribe for the benefit of these Indians that needed agricultural assistance. This fund could be used to purchase seed, animals, machinery, tools, implements and other equipment to the amount of fifty thousand dollars. This fund could be loaned without interest to those deserving and needing assistance, and should be repaid by the borrower as soon as possible and then loaned to some other Indian needing help.

10/ Kappler, Charles J., Indian Affairs Laws and Treaties, Volume III, U. S. Government Printing Office, Washington, D. C., 1913 page 87.

11/ Kappler, Charles J., Indian Affairs Laws and Treaties, Volume IV, U. S. Government Printing Office, Washington, D. C., 1929, page 755.

d. Any Indian-owned land that was not needed by the Indians could be leased to white lessees for a period not to exceed five years at a time.

e. Sections sixteen and thirty-six, or such parts of such sections as may be non-mineral or non-timbered, were to be given to the State of Montana for common school purposes. The Crow Indian children were to be permitted to attend the public schools of said State on the same conditions as the children of white citizens.

The purpose of this act was to give the Indian a chance to operate his own affairs without Office supervision in order that he should learn by doing, but still not to give him the right to dispose of his trust land.

Four hundred and twenty-nine of the Crow Indians were adjudged competent and given the right to make leases and to transact their own business free from Government supervision. All lands were allotted except the unsurveyed mountainous lands in the Big Horn and Pryor Mountains. This unallotted land consisted of 272,640 acres of very good grazing lands.

Agency Reports as to Status and Progress of the Crow Indians

The first report of any farming done by the Crows was made by Lieutenant Camp in 1870, that a full-blooded Indian, Wolf Bow, with the aid of three wives and eight children cultivated about seven acres of land and produced a fair crop. ^{12/} Wolf Bow had been the second Crow Indian to sign the Treaty of Fort Laramie in 1868.

In the report of Agent F. D. Pease to the Commissioner of Indian

^{12/} Kappler, Vol. I, op. cit., page 432.

Affairs in 1871, there is a record of the United States not keeping its treaty obligations. 13/ There were complaints from the Indians who were trying to farm that they had not received the "good American cow and one yoke of well-broken American oxen." Mr. Pease records a population of 4,100 persons and reports a great scarcity of game for food. He suggests that the Crows be armed to better protect themselves against the Sioux. Seventy-five acres of land were broken, forty were tilled and three acres were used for garden. Mr. Pease remarks that the old Indians were very much opposed to labor for they considered it degrading.

In the Agency Report for 1872, 14/ the size of their reservation was given as 6,263,000 acres, of which one hundred acres was farmed by the Indians. Three hundred bushels of wheat, 1,000 bushels of corn, 500 bushels of oats, 2,000 bushels of potatoes and 8,000 pounds of vegetables were produced. Twenty thousand dollars worth of furs were sold. The agent reports that three frame houses and thirty log houses were occupied by the Indians.

The report for 1875, 15/ is in a different tone. The Crows were attacked by the Sioux and driven from the Reservation. The agent says:

"The effect upon the Crows is detrimental and tends to paralyze the efforts and the expenditures of the Government upon their civilization."

Again in 1876, 16/ because of the Indian wars there was no farming.

13/ Report of Commissioner of Indian Affairs, 1871, p. 417.

14/ Report of Commissioner of Indian Affairs, 1873, p. 406.

15/ Report of Commissioner of Indian Affairs, 1875, page 302.

16/ Report of Commissioner of Indian Affairs, 1876, page 87.

There were a number of complaints about whiskey and white hunters being on the Reservation. The agent reported that there were six Crow Indians wearing citizens' dress, but there were no houses occupied by the Indians. There was one school house and there were forty-four males and thirty-four females attending school. Twelve Indians could read English. There were 20,000 Indian-owned horses.

In 1880, 17/ the agent's report stated that the Crows were "essentially a nomadic race--happy in the chase." They had little sense of the value of money, as a tribe they were notoriously improvident. Most of them wore "citizens'" clothes. Their amusements consisted of singing, dancing, and horse racing. They liked to enjoy the fruits of civilization, but would like the white man to do the work. Most of the work around the camp was done by the women. The Crows professed to be great friends of the Government. They would say, "White man and Crow like one." The general health was good. Their capacity for education was very good; "in penmanship and drawing they excel the white children." Table I shows that in 1880 the Crows had cultivated forty-one acres and that twenty-one families were actually farming. They owned 13,400 head of horses, but only 800 head of cattle. Twenty-five children attended school and eight houses were occupied. They sold \$27,700 of furs.

In 1890, 18/ the agent reported a very hard year in Montana because of a severe drought. This record showed that the Indians were

17/ Report of Commissioner of Indian Affairs, 1880, page 107.

18/ Report of Commissioner of Indian Affairs, 1890, page 115.

TABLE I. AGRICULTURAL STATISTICS
CROW INDIAN RESERVATION, MONTANA*

	Year 1870	Year 1880	Year 1890	Year 1900	Year 1911	Year 1915	Year 1920	Year 1932	Year 1937
Area of Reservation in million acres	6.624	6.624	4.712	3.540	2.313	2.313	2.313	2.313	2.123
No. of Allotments			670	976	1,111	2,438	2,838	4,125	4,125
Acres Cultivated		41	1,399	4,000	17,000	18,400	16,234	9,456	8,317
Families actually cultivating lands		21	27	119	226	279	280	184	125
Wheat Planted Acres			57	250	12,876	13,654	11,867	2,171	1,572
Acres of Corn			250	No Records				22	27
Pounds of vegetables produced			68,860	158,000	143,333	215,156	188,089	282,001	386,921
Tons of hay cut			700	2,000	No Records			3,761	3,451
Horses Owned	24,000	13,400	5,210	6,123	7,000	2,224	4,700	1,958	1,650
Cattle Owned	10	8,000	3,500	3,200	3,830	15,861	2,648	2,737	3,830
Milk Cows Owned								68	120
Swine								192	170
Sheep								1,646	2,300
Poultry			410	700	550	1,235	1,178	1,268	6,000
Indians engaged in stock raising	No Records					265	237	220	220
Value of Livestock sold	No Records					\$30,000	436,256	40,175	44,850
Value of all Crops Produced	No Records								70,230
Income all sources in thousands of dollars	234		230	150	550	729	1,457	570	682

* Source: Records Crow Indian Office

much opposed to the Burlington Railroad. In their councils they said that they "did not want more stakes set in their ground."

The report showed that the number of acres cultivated had increased to 1399 acres while 10,600 acres were under fence. Twenty-seven families were actually cultivating the soil. The Indian-owned horses had decreased to 5,210 head while the number of cattle had increased to 3,500. Only 410 head of poultry were owned. The acreage of the Reservation had decreased to 4,712,960 acres, and 670 different allotments had been made. There were 80 children attending schools "out of a population of 2,436 people." One hundred and fifty Indians could speak the English language and 140 could read it. Three hundred twenty-four houses were occupied; as very few of the tribe lived in tents or tepees. The agent had received 1,000 head of heifers and 50 bulls which he added to the tribal herd instead of issuing them to the individual Indians because he thought the cattle would receive better care in the herd.

In 1900, much attention was given to livestock. The Superintendent wrote 19/ to the Commissioner of Indian Affairs as follows:

"The results from the cattle, considering the present size of the herd, was very satisfactory, and from their shipments and issues, \$56,000 were realized. The horse question appeared a most serious one, as some 35,000 to 40,000 head of inbred Indian ponies were running on the range eating and grass from the cattle. During the past year some 12,000 head have been disposed of, bringing good prices considering the quality. Five dollars for yearlings and from \$5 to \$10 for the balance."

He further states that

"Practical experience has proved beyond doubt the

19/ Report of Commissioner of Indian Affairs, 1900, page 267.

advisability of allotting in severalty as applied in this tribe. There are in each of the five farm districts of this reservation community farms worked in common by those to whom no allotment of land has yet been made and their work proves that each individual should have his own land."

At this time there were 4,000 acres cultivated and 119 different Indian families were actually farming. The crop yields were fair as shown in table I. The total income was \$105,866 from all resources. Two hundred and fifty families lived in frame or log houses and two hundred thirty-three children were attending the various Government schools, both on and off the Reservation. More of the Indians were able to speak and to read English. The same report indicates that the "health of the tribe has been fair though tubercular troubles of serious forms are frequently met with."

In 1910, 20/ the Commissioner wrote that \$41,688.85 had been expended for irrigation and of that, \$26,480 had been paid the Indian labor and teams, as agreed in the treaty of 1890. It was estimated that 69,340 acres were irrigable. This year sealed bids for grazing land on the Crow Reservation increased the amount paid about four times, that is, from \$33,001.27 to \$140,252.00.

In 1911, the statistical tables 21/ show that 1,725 Crows were allotted while 225 were not. No families were living in tepees or tents, but all lived in houses with good floors. The number of children in school had increased. The total revenue was about five times as great as in 1900. The number of cattle and poultry had increased. The total

20/ Report of Commissioner of Indian Affairs, 1910, page 72.

21/ Report of Commissioner of Indian Affairs, 1911.

value of the Indian's individual property was estimated to be \$4,988,492.23.

In 1918, 22/ the population had decreased slightly to 1713. About one-half this number were able to speak English and to read and write. Ninety-seven of the Crows were citizens and voters. The total income of the tribe had increased to \$930,714. This income was derived from crops produced, livestock sold, timber sales, wages earned, individual leases, land sales, Indian moneys, etc. There were 231 Indian families farming and operating 19,200 acres of land. It was estimated that 514 Indians were engaged in producing livestock, which they grazed on about 300,000 acres of range land. At the same time there were 2,000 leases covering 1,850,000 acres of grazing land.

In 1930, the total population had increased to 1966, with 1720 residing at the jurisdiction and 224 living elsewhere than on the Reservation. Of the 563 children between the ages of 6 and 18 years, 436 were in school.

The 1932 report of the Superintendent to the Commissioner of Indian Affairs shows that the number of range cattle on the Reservation had decreased to 2,737 head. The Indian farmers had harvested 2,171 acres of wheat, 1,739 acres of alfalfa, 2,700 acres of wild hay. Two hundred fifty-seven thousand four hundred and one pounds of vegetables had been stored from the 225 home gardens. The livestock owned by the different farmers included work horses, milk cows, hogs, sheep and poultry.

Summary

Thus is shown the transition of the Crow Tribe from 1742 at the time of first visitation of the white explorers and adventurers, when the tribe was a warlike nomadic people without any permanent home, to the present time when they are peaceful law abiding citizens of the United States.

It was shown that before their contact with the white man they were self sufficing in a civilization entirely different from that of the present time. They lived from the benefits of the hunt and the chase and the vegetation of that region. Their houses or tepees, their clothing, their weapons, were all handmade from the material that was found on the land.

It has been found that after the coming of the white man the Crow Indians gave up their wandering life and selected their present location to live under the protection of the United States Government. Their philosophy, religion, and in fact most of their civilization was discarded and that of the white men adopted.

The treaties and agency reports showed that of the more than six million acres of the original reservation, about two-thirds of the land has been ceded to the government, in exchange for improvements and annuities, or to be held as parks or sold to the railroad companies or sold to white settlers by individual Indians after being allotted to them.

The land sold to the railroads was used by these companies as right of way for tracks, telegraph lines and other appurtenances, thus

giving the Reservation two lines of transportation and communication traversing the entire region.

The improvements provided by the government included the irrigation system, hydro-electric plants, flour mills, hospital and medical service, schools, and administration of reservation affairs.

The problem now is how can the Indians use these improvements and the remainder of their land to the best advantage of themselves and of the nation as a whole.

CHAPTER II. SURFACE, CLIMATE, AND RESOURCES OF THE CROW INDIAN RESERVATION

Extent and Location

To understand thoroughly the economic possibilities of the Crow Indian Reservation, it is necessary to be familiar with the geological features and the natural resources that serve to make this one of the most favored Reservations in Montana. The present Crow Indian Reservation contains about 3,000 square miles and includes 112 townships or parts of townships within Townships 1 to 9 South Latitude, Ranges 25 to 38, East Longitude. Most of the Reservation lies within the limits of Big Horn County, but some of the northwestern townships are in Yellowstone County. A map of the Reservation is shown in figure 5.

Surface and Geology

Surface altitudes within the area, 23/ range from about 2,150 feet

23/ Geology of Big Horn County and the Crow Indian Reservation Montana. Geological Survey Bulletin 856, U. S. Government Printing Office, Washington, D. C., 1935.

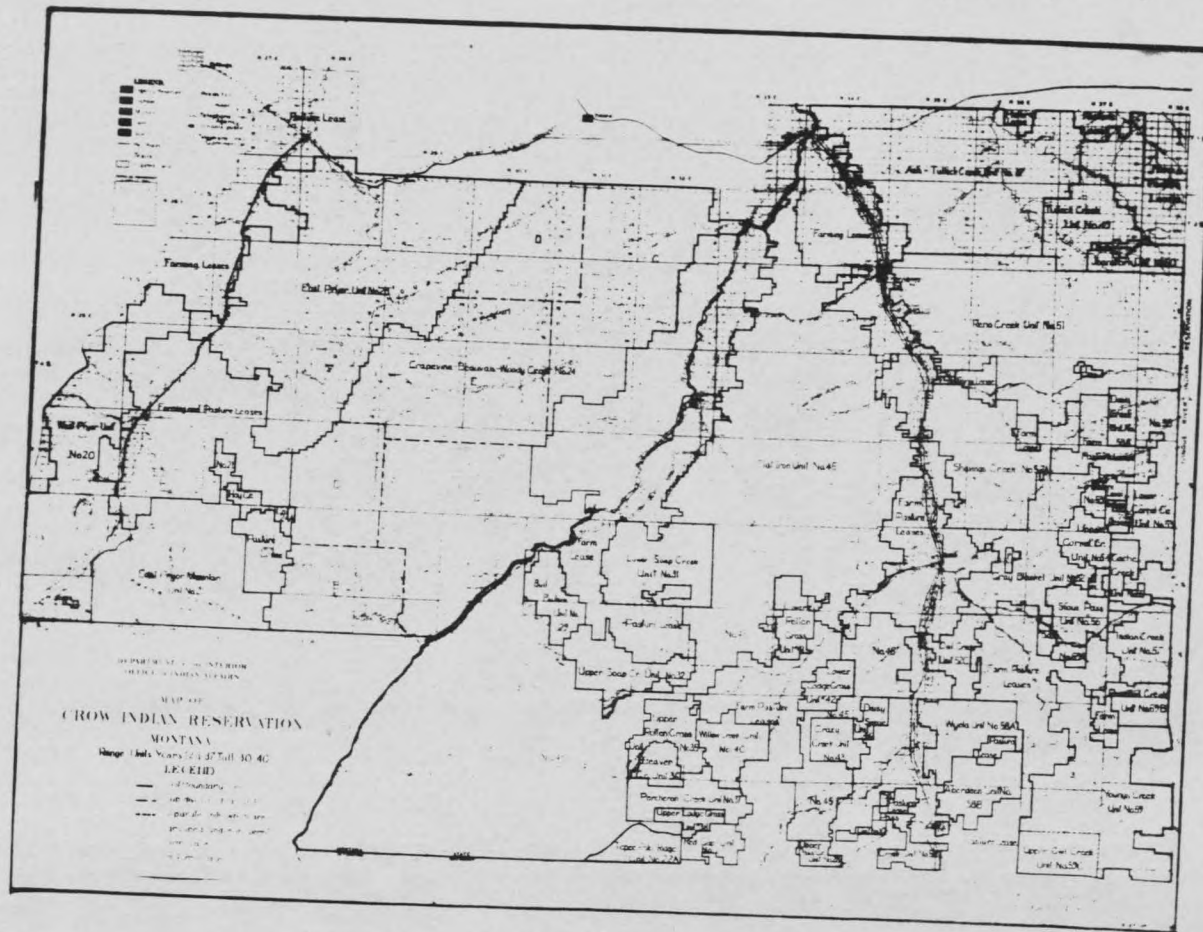


Figure 5.--Map of the Crow Indian Reservation.

above sea level in the Big Horn Valley near Hardin to 4,100 feet on Pine Ridge, and from 5,600 feet in the Rosebud Mountains to more than 8,000 feet in the Pryor Mountains, while the highest elevation in the Big Horn Mountains extends 9,250 feet above sea level. The mean relief is, therefore, about 6,500 feet. The relief of these mountains is accentuated by their abrupt rise of more than 6,000 feet above the general level of the plains. Long narrow ridges, called hogbacks, from their fancied resemblance to the razor back hog, parallel the mountains and mark the transition from the plains. These hogbacks were formed by hard tilted layers of rock that resisted the erosion which removed the softer layers above and below.

The plains themselves, though mostly less than 4,000 feet above sea level are by no means ^{flat} flat. Smooth nearly flat tracts are not uncommon in the interstream areas, but the relief in some parts is 500 to 600 feet.

Although only the main streams of the Crow Indian Reservation are perennial, the volume of water carried at certain times of the year is large and its erosive power is great. Most of the stream valleys are deeply cut below the general level of the country. In the mountains the rivers have cut narrow canyons more than 1,000 feet deep. Of the large number of beautiful canyons in or near the Big Horn Mountains, three deserve mention. They are the Big Horn, Little Horn, and Black Canyons. The Big Horn Canyon is the largest. 24/ It is more than 1,000

24/ Geology of Big Horn County and the Crow Indian Reservation Montana, op. cit.

feet deep. The river fills the bottom so completely that not even sufficient space is left on either side for a footpath. Black Canyon, which is a tributary of the Big Horn Canyon, is 1,200 to 1,500 feet deep. Little Horn Canyon has brilliantly colored walls that rise 1,500 to 2,000 feet above the canyon floor.

In the plains, the width and depth of the valleys differ with the kind of rock structure. Valleys cut in shale are wider than those cut in sandstone, but nearly all have flat bottoms with strips of alluvium, and sides that rise steeply to the level of the surrounding upland.

Terraces are conspicuously developed along the Big Horn River, where they are locally called benches. The term bench is also used locally to describe a nearly flat area resulting from the erosion of soft shale from a nearly horizontal harder and more resistant underlying bed. The gravelly terraces or benches level the tilted shale and sandstone without respect to differences in hardness. The depth of the gravel ranges from a few inches to thirty-five or forty feet. In a few places it is more than fifty feet, but usually it is less than twenty-five feet. The terraces owe their preservation at the present levels to the fact that a surface covered by gravel resists erosion, because water falling on it quickly percolates through the gravel and drains out slowly, either as springs or as seepage along the sides. Erosion is most active where a small stream is working headward in a terrace, or where a larger stream is undercutting the terrace by lateral plattation.

Drainage

The rain that falls upon the plains flows off rapidly because of the sparseness of the vegetation, the well-developed drainage system, and the violent nature of many of the rainstorms. For this reason the streams are very "flashy" and rise with great rapidity.

The streams of the Reservation are all tributary either directly or indirectly to the Yellowstone River. The central part of the area is drained by the Big Horn River and its tributaries, of which the Little Horn River is the largest; the western part is drained by Pryor Creek; the eastern part is drained by Sarpy and Rosebud Creeks. Several townships in the northern part are drained by Fly Creek. All of these streams have branches, some of which rise in the mountains and are perennial, but the majority irrespective of where they rise, are intermittent. The smaller branches are ephemeral and flow only while snow is melting or during and immediately after rains.

The Big Horn River is by far the largest of all these streams. It rises in the mountains of Wyoming and after it enters the plains it has a broad valley from a few hundred yards to more than two miles in width.

The Little Horn River rises in the Big Horn Mountains just south of the Wyoming State line. The valley is somewhat narrow and consequently appears deeper than that of the Big Horn. Pass and Lodgegrass Creeks are the only perennial branches, but numerous intermittent streams flow from the east and west carrying large volumes of water during and

immediately after storms.

Pryor Creek rises in the mountains of the same name and flows in a general northerly direction into the Yellowstone River. It has a large valley which may have been formed when the old stream that cut Pryor Gap flowed through it on its way to the Yellowstone River. The valley floor is several hundred feet below the general level of the interstream areas, and the rise is very abrupt. Pryor Creek has a fairly strong flow and in the spring it carries large volumes of water derived from the melting snow in the mountains. It has several tributaries, some of which rise in the mountains, but are not perennial. This creek is used to irrigate considerable areas, particularly in the vicinity of the village of Pryor.

Fly Creek, an intermittent stream in the northern part of the Reservation, is directly tributary to the Yellowstone River. All the tributaries of Fly Creek rise in poorly-watered regions and none are perennial except for short distances.

The United States Geological Survey has maintained gauging stations on certain streams in this area and detailed records have been published. A gauging station was operated on the Big Horn River at Hardin from June 16, 1904 to May 31, 1925. The maximum discharge recorded was 42,300 second-feet October 1, 1923, and the minimum was 516 second-feet, July 15-18, 1919. ^{25/} Two stations have been operated on the Little Horn River, one near Wyola and the other at Crow Agency. At the Wyola station

^{25/} Geology of Big Horn County and the Crow Indian Reservation, Montana, op. cit.

the maximum recorded discharge was 1,610 second-feet, June 16, 1924, and the minimum was 32 second-feet, April 12, 1915. At Crow Agency the maximum was 8,200 second-feet, July 23, 1923. The stream was dry from July 28 to August 6, 1921. The stream flow is affected by diversion for irrigation above these gauging stations. The gauging stations above the Pryor ditch showed the maximum discharge was 112 second-feet, May 23, 1924 and the minimum 3.9 second-feet April 3, 1922. In the Lodge Grass Creek, the maximum recorded discharge was 540 second-feet and the minimum was 3.6 second-feet.

Climate

The climate of the Crow Indian Reservation resembles that of other parts of southeastern Montana except in the Big Horn and Pryor Mountains, where the increased altitudes cause a much lower mean annual temperature and greater precipitation than is normal for the open plains.

Precipitation.--The mean annual precipitation as recorded at the cooperative weather bureau stations are as follows:

Section	Mean for period of	Amount
Crow Agency	1880 to 1930	15.09 inches
Busby	1903 to 1930	13.87 inches
Foster	1910 to 1930	11.58 inches
Decker	1905 to 1911	12.59 inches

The total precipitation may vary greatly from year to year at any station.

The precipitation, although not large is normally most abundant during the growing season, from April to July. Violent thunder storms

often accompanied by hail are common and much damage is done in small areas each year by such storms. Even light snows have occurred during the summer.

The precipitation is lightest during the winter (see table II). Most of the moisture from November to March falls as snow. As shown in the snowfall chart, (table III), the average snowfall for the year at Crow Agency is forty-four inches. The snow is usually dry and the accompanying winds quickly blow it off the high uplands into depressions and coulees, leaving the grazing land open and accessible to livestock.

Temperature.---As will be seen by table IV, there is a great temperature range, both seasonal and diurnal. The mean annual temperature at Crow Agency is 44.9° Fahrenheit. Temperatures exceeding 100 degrees occur occasionally on several days during the summer, but protracted periods of high temperature are very rare. 26/ The highest temperature recorded at Crow Agency is 110 degrees Fahrenheit. In winter temperatures of 48 degrees below zero have been recorded, but such cold periods are usually short. During the winter there are usually many consecutive clear days with temperature just below freezing. The diurnal change in temperature is frequently more than forty degrees, particularly in summer, and the hot days are normally followed by cool, comfortable nights. In winter even greater variations in temperature occur when storms approach.

Growing Season.---The average growing season at Crow Agency over a

26/ Climatic Summary of Southeastern Montana, United States
Department of Agriculture, Weather Bureau, U. S. Government Printing Office,
Washington, D. C., 1930.

TABLE II. CLIMATIC SUMMARY

Precipitation at Crow Agency, Big Horn County, Crow Indian Reservation, Montana: Monthly, Annual, and Average Amounts in Inches and Hundredths. Elevation 3,036 feet.

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1880	0.32	0.60	0.36	1.31	5.63	3.17	2.51	2.55	0.20	1.19	0.54	1.27	19.65
1890	0.31	.24	1.18	.56	1.03	2.44	.06	.31	1.72	.98	.48	.35	9.66
1900	.04	.51	.10	3.99	.47	.00	.39	2.58	.99	.81	.50	.22	10.60
1910	1.02	.44	.46	1.46	2.00	.74	.48	.61	1.67	1.32	2.21	1.00	13.41
1920	1.15	2.26	.95	2.35	2.66	4.08	1.55	1.55	.00	.00	.30	.25	16.26
1930	.69	.28	.80	1.65	1.50	1.26	1.50	.35	.18	2.92	.12	.18	11.43
Average*	.83	.66	.95	1.36	2.47	2.50	1.38	.86	1.17	1.30	.87	.74	15.09

* Fifty-one year average from 1879 to 1930.

Source: United States Department of Agriculture, Weather Bureau's Climatic Summary of Southeastern Montana.

TABLE III. WIND DIRECTION AND SNOWFALL CHART

Length of Record 40 years
1890 to 1930

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Wind Direction	W	S	NW	NW	NW	E	E	E	NW	NW	NW	N	NW
Snowfall	7.2	6.2	9.2	4.3	1.0	0	0	0	.5	3.3	5.5	6.6	44.0
Days Snowfall 0.01	5	5	6	6	8	8	5	4	4	5	4	5	65

Source: Climatic Summary of the United States by the United States Department of Agriculture, Weather Bureau, 1930.

TABLE IV. TEMPERATURE CHART

Length of Record 47 years
1883 to 1930

Month	Average	Average Maximum	Average Minimum	Highest	Lowest
January	18.9	31.6	6.2	62	-45
February	21.8	34.6	9.0	68	-46
March	33.6	46.4	20.9	81	-31
April	46.4	60.5	32.2	89	- 8
May	54.7	68.2	41.2	101	18
June	65.1	80.4	49.8	107	28
July	72.4	89.7	55.1	110	36
August	69	86	51.5	109	36
September	68.7	75.4	42	100	15
October	47.4	62.5	32.3	89	-18
November	33.6	47.1	20.1	78	-26
December	23.6	33.5	11.7	71	-48
Average annual	45.4	59.9	31	110	-48

Source: Climatic Summary of Southeastern Montana, United States
Department of Agriculture, Weather Bureau.

fifty-year period is 134 days, 27/ although killing frosts have occurred as late as June 21, and as early as September 1, the average date of the last killing frost in the spring at Crow Agency is May 14, while the average date of the first killing frost is September 14, in general, the period between the last killing frost in the spring and the first in the autumn decreases with the increase in altitude. (See table V)

Winds.--The direction of the prevailing winds in most parts of the Reservation is west and northwest (see table III). Although destructive winds are uncommon, strong winds prevail throughout most of the year. During the summer, the winds accompanied by high temperature cause rapid evaporation, as the air is usually dry. These dry winds frequently damage dry land crops, but irrigated areas are little affected.

Natural Resources

Vegetation.--The diversities of altitude and soil existing within the Crow Indian Reservation are reflected in similar variation in vegetation. The upland meadows of the Big Horn Mountains support a luxuriant growth of prairie grasses during the ordinary seasons, and numerous coniferous trees grow in the higher and more rocky parts of the mountains. The sandstone hills east of the Little Horn River support a growth of pines. Along the watercourses such grasses as grammas, stipas, fescues, poas, and blue stem flourishes, and groves and thickets of cottonwood, willows and boxelders are common. Timber for fuel and some suitable merchantable

27/ Climatic Summary of Southeastern Montana, op. cit.

TABLE V. FROST DATA

Year	Date of last killing frost in spring	Date of first killing frost in autumn	Length of growing season, last killing frost to first killing frost (days)	Latest date with temperature 32 or lower in spring	Earliest date with temperature 32 or lower in autumn
1880	May 10	Sept. 12	125	---	---
1885	May 8	Oct. 3	148	---	---
1890	May 12	---	---	---	---
1895	May 16	Sept. 7	114	May 16	Sept. 7
1900	Apr. 30	Sept. 26	149	Apr. 30	Sept. 25
1905	May 13	Oct. 11	151	May 16	Oct. 9
1910	---	Sept. 9	---	---	Aug. 25
1915	---	---	---	---	---
1920	May 1	Oct. 10	162	May 1	Sept. 25
1925	May 19	Oct. 4	138	May 19	Oct. 4
1930	May 23	Sept. 1	101	May 23	Sept. 1
50-year average	May 14	Sept. 25	134	June 21	Aug. 27

Source: Climatic Summary of the United States, 1930, United States Department of Agriculture Weather Bureau, page 15.

timber may be found in the mountains. The Division of Forestry reported in their 1938 annual report that there were 68,000 acres of timber of which 19,260 acres are of commercial importance. It is estimated that the total stand of timber contains 82,233,000 board feet. The area of commercial importance contains an estimated 33,863,000 board feet of ponderosa pine. In addition to the commercial timber there is an estimated 48,000 acres of non-commercial timber in the Big Horn and Pryor mountains. This consists of lodgepole, spruce, fir, and aspen. On the adjacent badland and benchland areas, western wheat grass, sage brush, greasewood, and prickly pear make up a flora characteristic of a semi-arid climate.

Hydro-electric Power.--The Big Horn River, and to a lesser degree the smaller streams, heading in the mountains, are potential sources of hydro-electric power. It is even possible that power for isolated ranches may be developed from artesian wells drilled near the Big Horn mountains, as several wells near Soap and Beauvais Creeks yield a flow of 1,000 to 25,000 barrels of water daily, and the casinghead pressure of two wells at Soap Creek is reported to have registered 225 and 300 pounds to the square inch.

Water Supplies.--The Crow Reservation is very fortunate in its supply of water for domestic and livestock uses, irrigation, and public supplies. These groups are not mutually exclusive, as water supplies which may be primarily intended for one purpose are frequently used for other purposes. The Big Horn and Little Horn Rivers, Pryor Creek and Lodge Grass Creek are the principal sources of water for domestic

purposes in their respective valleys, although many people living in these valleys use wells or springs.

The river water is readily available to the inhabitants of the river valleys, particularly in the irrigated areas, where water from the ditches is run directly into cisterns. Even when the ranchers haul water the distance is short. Wells dug in the alluvium of the river valleys are inexpensive and furnish adequate supplies, but in general yield water that is more highly mineralized than the river water. On account of the lower mineral content and consequently less hardness, river waters are generally preferred by the inhabitants, particularly by the Indians, who seem to have an aversion to well water. Even if the water in a well that obtains its supply from the alluvium is too highly mineralized for domestic use, it may be valuable for stock, particularly during the winter, when the irrigation ditches are dry.

Most of the older ranches were located at or near springs that supplied water for all purposes. But it was early seen that the springs would not supply sufficient water, therefore settlers began to put down wells. Several types of wells are in use, such as the drilled wells, and dug wells. Most of the drilled wells are six inches in diameter, but some are only four. The six-inch wells are better adapted to the conditions of this region than are the wells of smaller diameter, and in many places eight-inch holes would be desirable because of the larger reservoirs that they would afford. Dug wells are most common in the alluvium and terrace material, but they are also numerous in the coulees in the upland areas. Shallow wells can be dug with little equipment and no great

expenditure of money or labor.

On the uplands people must depend on springs and wells or haul water from the rivers. The latter is a laborious and time-consuming task. In some places on the uplands where springs are not available, wells must be sunk by one of several methods. Drilled wells are more expensive, but they are more sanitary and more durable. Some dug wells are excellent producers, but they are easily contaminated and may go dry during the droughts.

Whether a water is suitable for domestic uses depends to a very large extent on the person using the water. Of course, there is a limit to the total dissolved solids for potability. Many waters are drunk in this region that would be rejected in regions where the inhabitants have less highly mineralized waters available. Then too, members of one household will drink without complaint, water that is condemned by others on the ranch as unfit for human consumption. This observation applies to the residents of the uplands as well as to those of the river valleys. The tolerance of animals for highly mineralized water is much greater than that of human beings. However, some ground waters in this region are so highly mineralized that even stock accustomed to the region refuse to drink them.

On most small ranches, other than those in the unfavorable areas, sufficient water for fifty to one hundred head of stock can be obtained from one or more wells. On the shale areas the rancher must either arrange to have his grazing area include a well or spring that obtains water to store in tanks for the cattle. Most of the springs in the

unfavorable areas yield highly mineralized water at only a few feet, but water from most of them is refused by cattle. Except for the flowing wells drilled in the search of oil, wells capable of watering more than one hundred head of cattle a day are not common.

Mineral Resources.--As might be expected this region has much mineral wealth. Some oil has been produced in the Soap Creek Field, and a natural gas supply for the town of Hardin is being developed by wells drilled just north of that town. Gypsum, clay, bentonite, asphaltic sandstone, sand and gravel are all present in quantities having either present or future commercial value. A large quantity of limestone is available in the mountains. A little placer gold has been found in the existing streambeds and may occur with some of the terrace gravel. Some coal mines have been opened at various points in the Reservation to provide coal for local domestic use. These are probably the most valuable mineral resources. It will however, probably be many years before extensive mining operations will be economically justified for the coal is located in the high ridges and plateaus east of the Little Horn River in a region not easily accessible by railroad spurs. 28/

Summary

The present Crow Agency contains about 3,000 square miles of land in Southeastern Montana. The altitude ranges from 2,150 feet in the Big Horn Valley to 9,250 feet in the Big Horn Mountains. There are three well developed drainage systems: the Big Horn, Little Horn Rivers,

28/ Geology of Big Horn County and the Crow Reservation, Montana, op. cit.

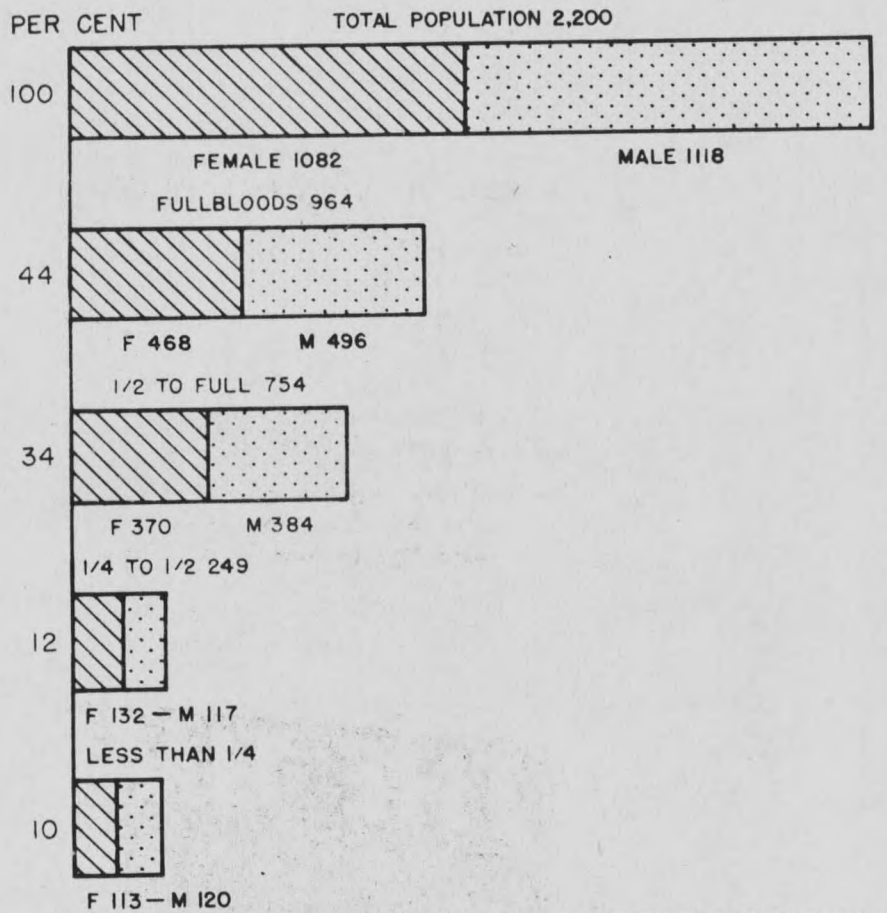
and Pryor Creek. These rivers are a valuable source of hydro-electric power, as well as providing water for the irrigation systems and for domestic use. The average rainfall is only twelve to fifteen inches, but most of it occurs in the growing season. Valuable timber as well as mineral resources including coal, gold, limestone, sandstone and gravel are found in the mountains. Grains, beets, hay, and livestock may be produced profitably on the plains. Therefore, with all of these natural resources at their command and with many modern conveniences made available to the tribe, all that remains is to formulate some plan whereby the Crow Indians will utilize their own opportunities and become a self-respecting and self-supporting people.

CHAPTER III. LIVING CONDITIONS AND WELFARE
OF THE CROW INDIANS

Population

The Crow Indian Census of 1938, 29/ shows that the total population enrolled in the Reservation is 2,200 persons. Of this number about 44 per cent are full-blood Indians, 34 per cent are more than one-half blood Indians, while about 10 per cent are of less than one-quarter Indian blood. Almost one-half of the total enrollment are below seventeen years of age and about one-tenth are over fifty years. Population status is shown fully in figures 6 and 7 and table VI.

29/ Records of the Crow Indian Office, Crow Agency, Montana, 138, page 1.



SOURCE: CENSUS CROW RESERVATION 1938

Figure 6.--Population status of Crow Indians by sex and blood, 1938.

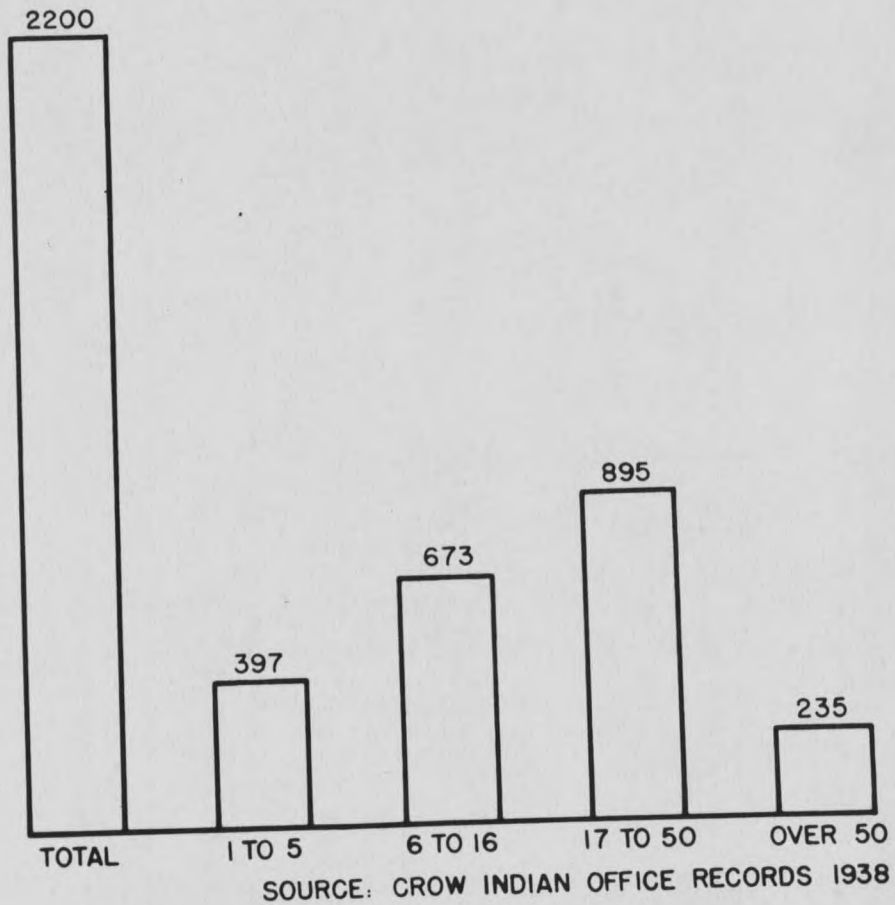


Figure 7.--Age groups of Indians, Crow Indian Reservation, 1938.

TABLE VI. DISTRIBUTION OF INDIANS

Crows off the Reservation, adults	172
Crows off the Reservation, children	26
Crows on the Reservation, adults	1,633
Crows on the Reservation, children	241
Other Indians married to Crows or in families, adults	8
Other Indians married to Crows or in families, children	27
Other Indians, adults	18
Other Indians, children	71
Total Crows off and on the Reservation and other Indians on the Reservation	2,196

Source: Civil Works Administration Survey, 1934.

The business affairs and general welfare of the Crow Tribe is greatly influenced by the Crow Indian Office, and the Crow Indian Office in turn must conform to the regulations as written by the Commissioner of Indian Affairs in Washington. The chief administrator at the Crow Indian Agency is the Superintendent, who has charge of all departments and employees on the Reservation. Robert Yellowtail, who is the present Superintendent, is a Crow Indian. Mr. Yellowtail was one of the first Indians to become a Superintendent of his own tribe. A picture of the Superintendent as he led the parade in the Crow annual Indian Fair is shown in the frontispiece. There are a number of different departments, of which the most important are: extension, forestry, land, finance, roads, irrigation, medical, education, law and order, and the various emergency relief administrations such as, Civilian Conservation Corps and the Works Progress Administration.

Extension

The extension division consists of an agricultural extension agent and six other extension aids. The purpose of this department is to teach the better methods of agriculture and stockraising. This division has direct contact with the Indians and the supervision of their property, such as livestock and farm property. This division is supposed to recommend what land is needed for family use and what should be leased. These employees are to advise on the expenditure of the lease rentals and other funds that are paid the Indians. This division, as well as

all the others, must cooperate and work together for the best interests of the whole reservation instead of merely the forwarding of its own department.

Forestry

The division of forestry and grazing is to care for and administer the needs of the forests and range lands on the Reservation. On the Crow Reservation there is a forest supervisor, a range examiner, and forest line rider. In general, these employees are to care for the forests and supervise the cutting of timber, to inspect the grazing units and other range leases in order that the land will not be abused, and to prevent overgrazing and to otherwise conserve the natural resources of the Reservation. The results of overgrazing and range conservation are shown in figure 8.

Land

The land department consists of the land clerk, and two leasing clerks. These clerks are to write the leases as recommended by the extension, to keep the records of rentals and to otherwise care for the records in regard to the land operations. Copies of all leases and other such business must be forwarded to the Indian Office and the General Accounting Office in Washington.

Finance

Each enrollee on the Reservation has an Individual Indian Money



Figure 8.--The ranges are under the careful supervision
of the United States Indian Forest Service.

account, and a careful record is kept of all funds received by him. At the request of a member of the extension division, funds are paid to the individual for such purposes as may be needed. There are two forms of disbursements. One is by general purchase order, by which a minor or other incompetent Indian is given an order to some merchant or vendor to sell certain articles named, to the individual Indian, and then the vendor is paid by check direct from the Agency office, no cash being handled by the Indian. The other method is to write a check direct to the enrollee from his account. This is the more common method with adult Indians, and as the Indians obtain more experience in financial matters fewer purchase orders are issued.

Roads

This division builds highways and keeps in repair existing roads on the Reservation. Whenever possible this division works in cooperation with the Bureau of Public Roads. Indians are employed whenever possible.

Irrigation

The chief duties of this department, since the project has been laid out, is to furnish water and to keep the many canals, ditches, and structures in repair. With the exception of engineers, Indians are hired to do most of this work.

Law and Order

There are two local Indian policemen, a prohibition officer, and an Indian police judge in the department. The policemen are to keep order and when necessary to make arrests, the prohibition officer is to suppress the liquor traffic, and the police judge is to try minor cases of law violations. "See table VII.)

Emergency Relief Administrations

The Civilian Conservation Corps of the Indian Department gives work relief to needy Indian families and endeavors to conserve the natural resources on the Reservation. In another paragraph the work of this division is given in detail.

The Works Progress Administration gives employment to those needy families that cannot find work elsewhere. In 1937 about \$15,000 was paid to these employees. Various projects, such as building corrals, building bridges, working on roads, and sewing projects for women were carried on.

Medical and Hospitalization

Adequate provision has been made for medical service. A fine new thirty-bed hospital, complete with all modern electrical and surgical appliances was recently constructed. The medical personnel, when completely staffed, consists of three doctors, four staff nurses, a cook, and two field nurses. The duties of the field nurses are in two parts:

TABLE VII. INDIAN LAW OFFENDERS
Crow Indian Reservation

Offence charged	Full blood		One-half blood	
	Male	Female	Male	Female
Liquor violations	7	0	2	0
Non-support	3			
Assault	6	1		
Drunken driving	2			
Disorderly conduct	2	1		
Misc. cases	8	2	10	

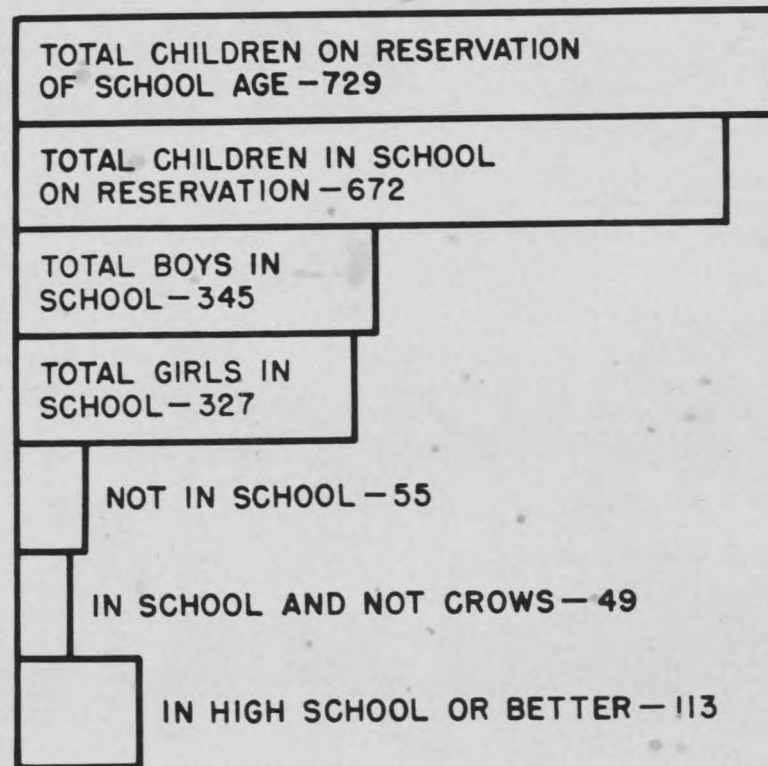
1. They visit the individual homes to teach better methods of health and hygiene.
2. They hold classes and schools in which they try to make the people health conscious.

Education

The 1938 records of the Crow Indian Agency indicate that there is a total of 729 children of school age on the Reservation. (See figure 9.) Of this number 672 are attending school. One hundred and thirteen are attending schools beyond the eighth grade level. There are fifty-five children of school age not in school for various reasons. A few are married; but most of the non-attendance is because of physical defects.

With the exception of those attending the two Catholic Mission Schools at St. Xavier and Pryor, all children attend the public schools or colleges. All pupils that do not live within walking distance of school are taken in the school buses. Wherever there are improved roads all school children are transported, even as far as 35 miles, to the town schools of Wyola, Lodge Grass, Crow Agency, Harden, St. Xavier, or Pryor. The communities that are too remote from such transportation lines have their own local public schools. The Civil Works Administration Survey in 1934 showed only thirty-six families more than five miles from a surfaced highway.

Naturally, the same curriculum is used for the Indian children as for the white children in the public schools. But none of these schools have any recognized vocational training or home economic courses



DATA FOR ALL INDIAN CHILDREN BETWEEN THE AGES OF 6 TO 18

SOURCE: RECORDS OF THE CROW INDIAN OFFICE 1938

Figure 9.--Distribution of children of school age, Crow Indian Reservation, 1937.

that help to teach the farm children how to become more proficient in their daily work. All time and effort is placed on academic training. But since new and modern school houses have been built in all six of the towns, it is hoped that provision will soon be made for more vocational training.

Adult Education

Some adult education is carried on under the leadership of the Agricultural Extension Division by means of the farm chapters, the annual short courses, and the livestock association. A farm chapter has been organized and meets at regular intervals in each district to discuss agricultural problems and develop Indian leadership among the men. The women's auxiliaries of these chapters stress many projects which tend to make the home a better and more pleasant place in which to live.

The annual short courses are held in the winter when the farmers can most easily leave their work. Guest speakers from the Montana State Agricultural College lead discussions in these three-day conferences. Exhibits of choice crop specimens, school work, and hobbies are on display. From five hundred to six hundred Indians usually attend these sessions. The livestock associations will be discussed in a later chapter.

Societies and Religious Organizations

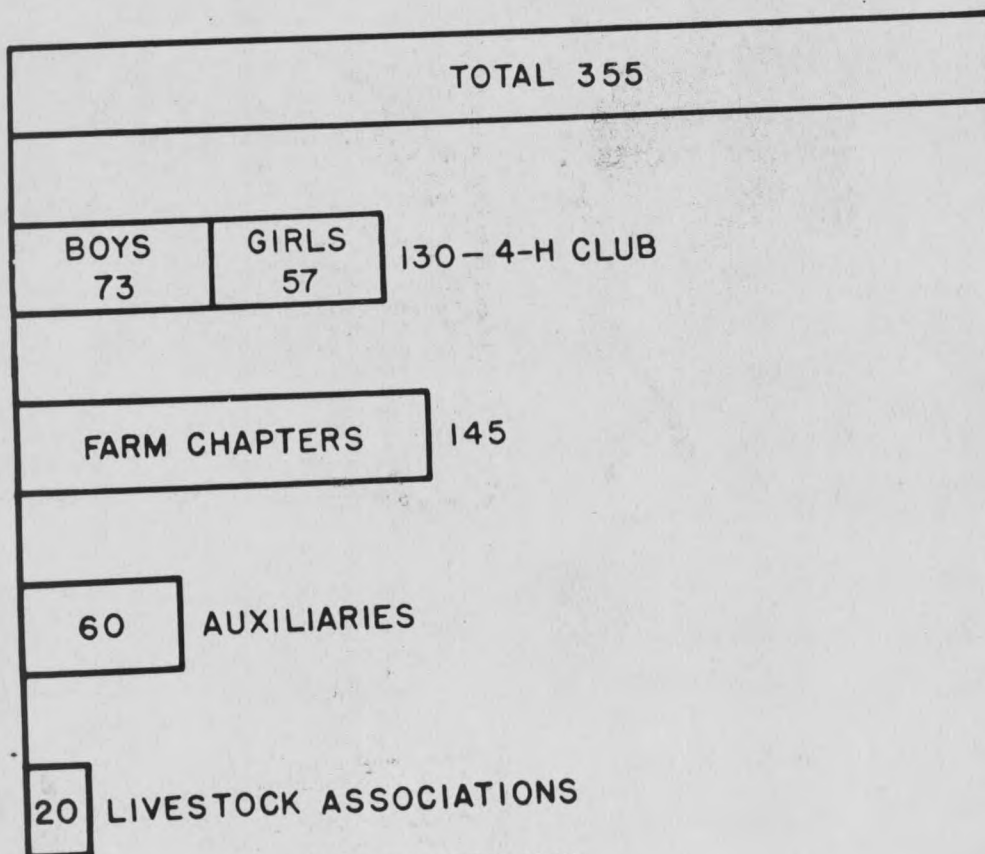
Much has been done on the Reservation to provide for the social

and religious welfare of the people. Among the most important of the organizations sponsored by the Extension Division is the 4-H project with a total membership of seventy-three boys and forty-seven girls in the eleven clubs located in the various farming districts. The results of this project are given in more detail in figure 10. The projects include sewing, cooking, gardening, poultry, and calf raising. These clubs help train the boys and girls to be better citizens. The farm chapters and the livestock association mentioned previously have many educational and social meetings.

Athletic teams have been organized. Basketball is a popular sport in winter, baseball in the summer. Each district has a community hall in which many purely social activities are carried on. The annual "Crow Fair" is an occasion much enjoyed by the entire population. (See figure 11.)

The two principal religious organizations are the Catholic and the Baptist Churches. A survey of religious welfare, (table VIII), shows that about two-thirds of the population attend church services. There are fourteen church buildings on the Reservation. There are several missionaries who spend a large amount of money annually in carrying on the religious work in the different sections.

But in spite of the many efforts and the large amounts of money that have been spent on the welfare and the education of the Indians, their standard of living and moral conditions are low, as judged by the white man. Soon after the allotting of the land was completed, good improvements were placed on the allotments and much equipment



SOURCE: CROW INDIAN OFFICE RECORDS 1937

Figure 10.--Number of Indians belonging to societies, Crow Indian Reservation, 1937.



Figure 11.--Part of the parade at the Annual Crow Fair.

TABLE VIII. RELIGIOUS WELFARE OF CROW INDIANS

	Total	Catholic	Protestant
Number of church buildings	14	9	5
Number who attend church	1,440	925	515
Number of Missionaries	12	6	6
Number of church societies	30	14	16
Number of Boy Scout members	29	0	29
Number of Girl Scout members	42	0	42
Number of other societies	13	8	5

Source: Annual Statistical Report, Superintendent to Commissioner, 1937.

purchased and every effort possible was made to cause the allottee to live on the land and to produce his living from agricultural pursuits. In general the results on the Crow Reservation have been disappointing. The families have gradually moved into the small towns on the Reservation, especially near Crow Agency, Lodge Grass, St. Xavier, and Pryor. They have built make-shift shacks or live in tents on tribal owned land. Many of them have leased their land and homes to white lessees. In a large measure their equipment and livestock have been dissipated. Many of the young men and women have never lived on a farm or ranch and their entire livelihood is derived from various emergency relief administrations or from other sources of a temporary nature. In many cases, when a lease payment is received it is paid toward the purchase of a new car instead of improving the family conditions.

Naturally, the improvements on the allotments have deteriorated or, in some cases, have entirely disappeared, with no effort toward replacement, as all the rentals are used for personal use. Because of a short leasing period the lessee does not try to improve the allotment, but in many cases efforts are made to "mine" the soil in order to obtain as large an income as possible from the land, then the lessee will move to another farm.

In turn the Indian family living in such small cramped quarters or, in some cases, two or three families all living together in a small house or tent, soon cultivate a warped view of life. Moral standards are lowered, health and hygienic conditions are endangered and in general a very unsatisfactory condition exists. It is difficult

to keep the children in school. Much of the time of the Government employee is wasted in answering petty, useless questions, or in seeking out information that is of no value to the individual. Nor would these questions ever be asked if the individual was busy with some useful employment. Much of the time and facilities of the medical staff is consumed caring for minor and avoidable ills.

In general the Indian is fully aware of this situation, and would welcome some way out of his present existence.

Summary

It has been shown that the Indian population of the Crow Indian Reservation consists of 2,200 people. Six hundred and seventy-two Indian pupils attend the public schools. Sufficient facilities are available for all educational needs except that no provision has yet been made for vocational training. The beginning has been made in adult education. The health, religious, and social welfare have been well provided for.

CHAPTER IV. LAND TENURE AND PRESENT UTILIZATION OF THE CROW INDIAN RESERVATION

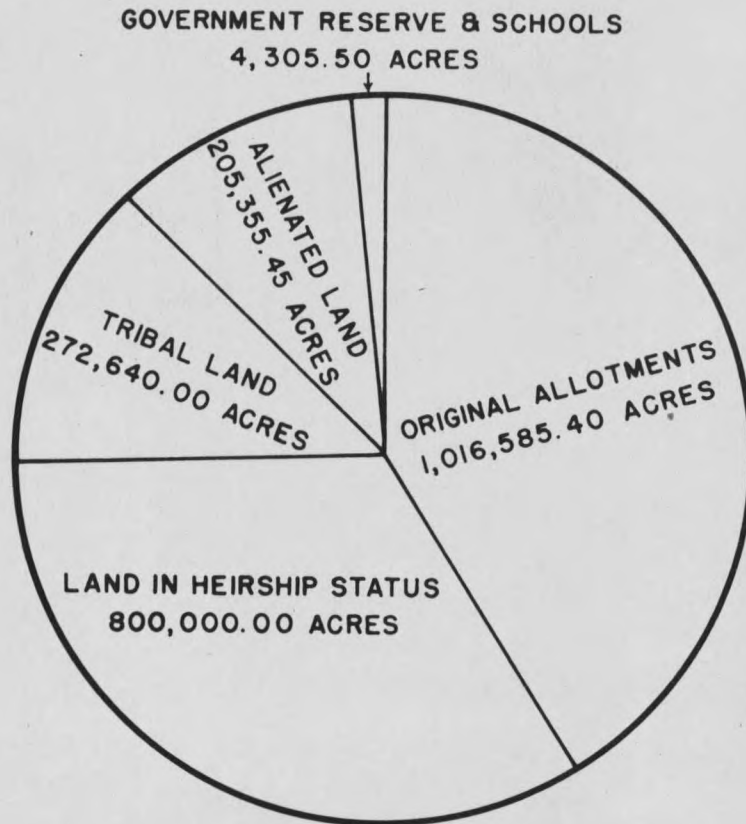
It has been shown in Chapter I, that of the 2,298,886.35 acres on the Crow Indian Reservation, 1,016,565 acres are still owned by the original allottees. Eight hundred thousand acres are in heirship status, 272,640 acres are tribal lands which will never be allotted. Two hundred and five thousand, three hundred and fifty-five acres have been sold or otherwise alienated. The remaining 4,305.5 acres are being

used by the Government for reserves, parks, and other purposes (see figure 12).

The importance of the acreage of Indian lands in heirship status is quickly seen when viewed in relation to other types of Indian owned lands as shown in table IX. With the end of further allotments virtually assured under the Wheeler-Howard Act, all the land now in the possession of original allottees will pass into the heirship stage in the next generation. At the present time on the Crow Indian Reservation it is passing into this stage at the rate of about 75,000 acres a year, and as the allottees grow older the mortality will increase. The Wheeler-Howard Act prohibited further sales of Indian land to other than Indian tribe members or Indian corporations. It is therefore, a certainty that the area of heirship lands will steadily increase. Inasmuch as the Wheeler-Howard Act left untouched the present system of heirship, except to restrict inheritance to members of the tribe or their descendants (thus preventing acquisition by the white people), the problem of what to do with these lands becomes of paramount importance. At present the heirship lands comprise thirty-four per cent of all Crow Indian lands.

The Heirship Problem

The heirship tracts are potentially one of the most important of Indian resources. The heirship system was a vehicle for alienating Indian land to white ownership. In 1902, pressure for legislation which would authorize the sale of heirship allotments could no longer



TOTAL ACREAGE OF RESERVATION - 2,298,886.35 ACRES

SOURCE - CROW INDIAN OFFICE RECORDS

Figure 12.--Land status of Crow Indian Reservation, 1938.

TABLE IX. LAND HOLDINGS ON CROW INDIAN RESERVATION

Indians with Land Holdings	
Crows off the reservation, all ages	172
Crows on the reservation, all ages	1,633
Other Indians married to Crows or in families	6
Other Indians	20
Total with land holdings	1,831
Indians without Land Holdings	
Crows off the reservation, children	26
Crows on the reservation, children	241
Married or in Crow families, children	7
Married or in Crow families, adults	22
Other Indians, children	22
Other Indians, adults	47
Total Indians without Land Holdings	365

Source: Civil Works Administration Survey, 1934.

be resisted. The passage of the act May 27, 1902 (32 Stat. 245, 275) opened the sluiceway for a wholesale dissipation of the Indian landed estate. A few years later (1906) it was complemented by another law which permitted the Secretary of the Interior to sell original allotments, as well. During this period 205,355 acres or about 8.5 per cent of the Indian holdings on the Crow Reservation were sold to the white men, and most of this land was the best of the irrigated agricultural lands.

Complexities of Equities

The present Indian heirship land system is characterized by the constant tendency of individual estates to grow more complex in their equities, more and more confusing to both the Indians and to their governmental guardians, and progressively more costly to administer. An allotment, once it has passed into the hands of heirs (but is still protected by a trust title), steadily subdivides into smaller and smaller equities as heirs, and heirs of heirs, increase. On the other hand, individual Indians accumulate more, and more minute equities from increasing numbers of different estates. This double process will be illustrated by specific cases in tables X and XI.

Examples of Sub-Division of Equities

Selected for its relative simplicity is the estate of Rides Behind, Crow Allottee Number 725, which presents a typical picture of the sub-division of an allotment through inheritance, (see table X). Only 34 years have elapsed since the original allottee died, yet the

TABLE X. HEIRS OF THE "RIDES BEHIND" ALLOTMENT CROW ALLOTTEE #725

	(Percy Stops 1/4	
(Paints Her Face Pretty	(Paul Stops 1/4	
#843 1/36	(Jenie Stops 1/4	
(John Rides Bear 1/36	(Edna Stops 1/4	
(	(Al Morrison 6/18	
(	(Mary Humphrey 2/18	
(Mrs. Al Morrison #3 SA-	(Hannah H. Hugs 2/18	
3/36	(Alvin Morrison 2/18	
(	(Fred Old Horn 1/18	
(	(Allen Old Horn 1/18	
(	(John Alden 2/18	
(	(Weasel High Up 2/18	
(	(Walks To The Hole 6/36	
(	(Sarah Fitzpatrick 3/36	
(	(Walks With The Wolf 3/36	
Rides Behind #725	(
(3-18-4)	(Pretty Paint (est) #1086	(Gerald Littlelight 1/2
NW/4 NE/4 Sec. 8 T 3 S	((8-1-37)	(Audrey Littlelight 1/2
R 33 E.	(
N/2 NE/4 Sec. 23, T 2 S	(Edith Blackhair 6/36	
R 33 E.	(Ben Longears 6/36	
NW/4 NW/4 Sec. 24, T 2 S	(Maggie Seminole Longears 2/36	
R 33 E. (160 A.)	(Edith Longear 2/36	
(	(June Longear 2/36	
(	(Shield At The Door 5/8	
((
(Medicine Man #695	(Takes a Woman #276 3/8 (Good Horse (by will) 3/8 (8-11-36)	
(19/36 (12-27-26)	(
(
(Froze #157 1/36		
((10-27-36)		

This estate has been probated eight times in 34 years. At present-28 living heirs.

Source--Records Crow Indian Office

TABLE XI. OWNERSHIP HOLDINGS OF LIZZIE SHANE YELLOWTAIL

Steals On Camp	)	Original-Young Antelope	1/6)	
White Mouth))	
Sharp Horn))	
Woman With Eyes Open	)	- Blue Chin	1/2)	
Pretty Porcupine))	
Pretty Woman Sharp horn))	
Crosses The Water))	
Pretty Woman Sharp Horn))	
Pretty Porcupine))	
Sharp Horn))	
Blue Chin	)	- Looks At The Bear	1/3)	
Gun Shows))	
Knows His))	
White Mouth))	
Original-Young Antelope	)	- Knows His Horse	1/6	)	- Gros Ventre 1/4
	)	Original-Long Neck	1/6)	
	)	Original-Bird Wellknown	1/4)	
	)	Original-Woman	1/18)	
White Mouth))	
Original-Dancing Woman	)	- Villis Close to Camp	1/2)	
Original-No Fane))	
Original-White Mouse))	
	)	Original-Long Neck)	
	)	Original-Old	1/2)	
	)	Original-Steps Or The Water	1/3)	
	)	Original-Horse	12/108)	
	)	Original-Strikes	12/432)	
Holds A Feather))	
Portus Holds	)	- Eagle	1/2)	
Red Buffalo	)	Original-Pretty Grass	576/20736	)	Original-Dorothy Yellowtail 1/2
	)			)	Original-Bird That Turns His Face 5400/38800
	)			)	Original-Erma Shane 1/6
	)			)	Original-Sneppin Log 1/3
	)	Original-Bull That Pises	1/2)	
	)	Original-Small Things	1/3)	
	)	Original-Hunts The Iron Hunter	1/36)	
Original-Strikes Both Ways 1/2))	
Original-Walking Mouse 27/72	)	- By The Side Of The Water	1/2)	
Original-Medicine Blanket 3/24))	
	)	Tray Log	3/8 (sold))	
	)	Strikes Both Ways	1/4)	
	)	Takes By Side Of The Camp (sold)	1/6	)	- Yellowtail 1/3
	)	Walking Mouse (sold)	3/18)	
Original-By The Side Of The	)	Medicine Blanket	3/48)	
Water 3/24))	
	)	White Bear (sold)	20 a.)	
	)	Dorothy Yellowtail	1/2)	
	)	Robert Pises Up	1/2)	
Robert Pises Up 1/2	)	Bull That Pises Up	1/2)	

Source--Crow Indian Agency Records

Office of Indian Affairs has probated the estate eight times. Today, there are 25 living heirs and 7 deceased heirs. Although it contained only 160 acres the allotment is distributed among 25 different heirs. The heirs of this estate happened to be young or middle-aged, otherwise the number of heirs with proportionately smaller equities would be still greater. Nevertheless, it is manifest that all these heirs could not possibly utilize this 160 acres for their subsistence, even if they used it in equal shares; nor could they derive any substantial benefits by leasing it for income.

A more complicated estate is that of Nice Knife, Allotment No. 1211. The selection of this allotment was made and trust patent issued November 14, 1908. The original allotment contained 320 acres. Forty acres is still held in trust. This estate was probated and heirs determined by the Secretary of the Interior on June 19, 1914. The finding by the Secretary's decision shows that there were eleven original heirs interested in this estate. At the present time after twenty-two years have elapsed there are sixty-two living heirs interested in this estate, and three estates that have not yet been determined by the Secretary. The smallest share inherited amounts to $1/32,400$ part or .0089 of one acre. As this estate was probated twenty-three years ago, it is logical to assume that the majority of the present heirs are getting along in years and that we may expect one death out of every twenty-five interested heirs each year and that each will leave on the average four heirs to his estate. If this assumption is correct, at the end of another

twenty-five-year period there will be approximately 2,150 heirs or the present heirship status would be multiplied approximately thirty-four times.

Another interesting estate is that of Ben Looks Back, who died in 1935. Ben was an heir to sixty-three different allotments. The largest estate was appraised at \$2,600; the smallest was valued at \$0.34. Ben left nine different heirs. In other words, the estate in which Ben owned an interest of thirty-four cents was divided equally among these nine heirs. Inasmuch as these heirs are middle-aged it will probably not be long before one of these heirs dies and this one-ninth interest in the thirty-four cent estate will be divided again.

Accumulation of Equities

When one turns to the other process--that of individual Indians falling heir to a great many equities in a number of different estates, one finds another impractical situation. An example is the heirship holdings of Mrs. Lizzie Shane Yellowtail, which is shown in table XI. It will be seen that this lady owns and has interest in many different allotments. Between the legal inhibitions which attach to trust land and the physical separation of the various units of land it is utterly impossible for the heir to work all the land. The only solution, under these circumstances, is to lease most of the land although she is rich in land and could engage in a substantial livestock business if her holdings were consolidated. It must be remembered that the twofold distribution of equities in heirship estates is constantly increasing in the case of practically all members of the tribe. The Indian Service is faced with

the task of managing a hopelessly scrambled collection of land equities, and the Indians are reduced to the status of petty lessors and real estate operators.

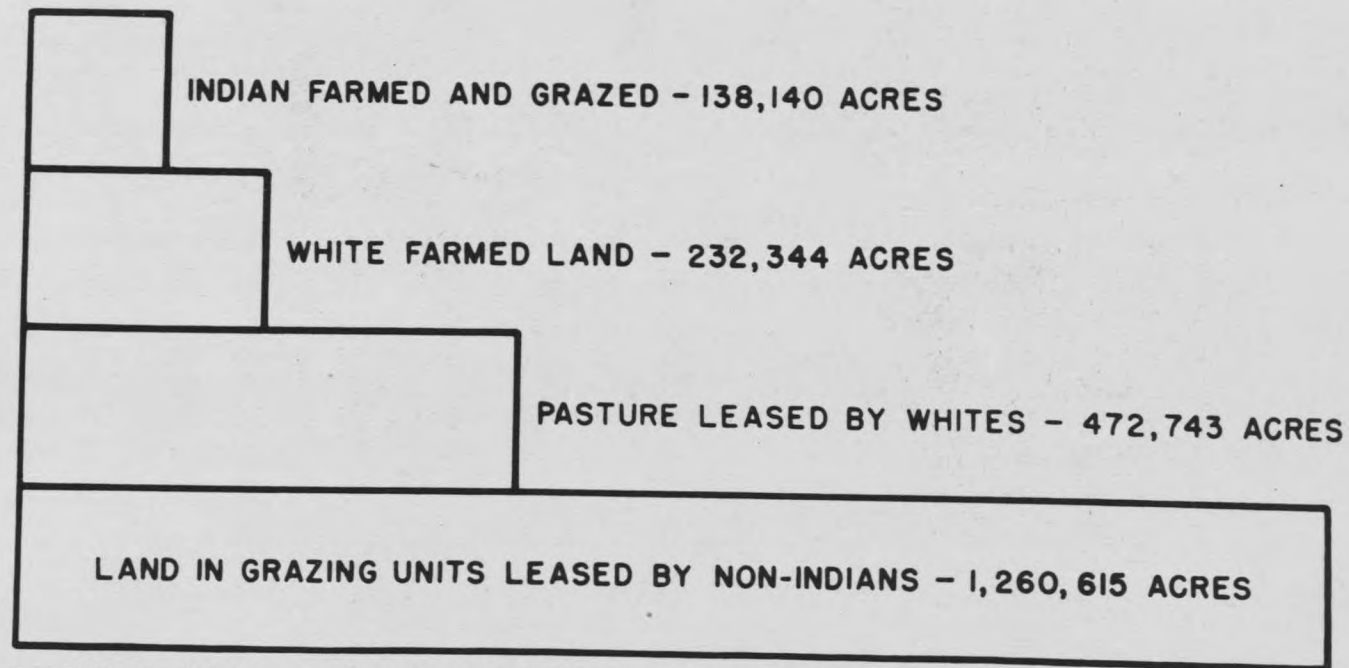
In order to lease a piece of heirship land, the Office of Indian Affairs must get signatures or a power of attorney from a sufficient number of heirs to include equities equalling at least fifty per cent of the estate. The office work and traveling involved in these transactions tend to consume more and more of the time and money of the Indian Service.

As a result of the complication of the estate system there is the constant stream of Indians to the agency to find out if there is "any lease money coming."

In Chapter II it was shown that the Crow Indian Reservation has great potential wealth in agricultural and grazing lands, mineral resources, hydro-electric power and water supplies. A brief survey will now be made of the way in which these resources are utilized at the present time. This is shown very clearly in the land utilization chart (figure 13).

Agriculture

In the Superintendent's report to the Commissioner of Indian Affairs in 1937, it is found that of over two million acres of land owned by them, the Crow Indians used only about 158,140 acres or about six per cent of the land. (See table XII and figure 14.)



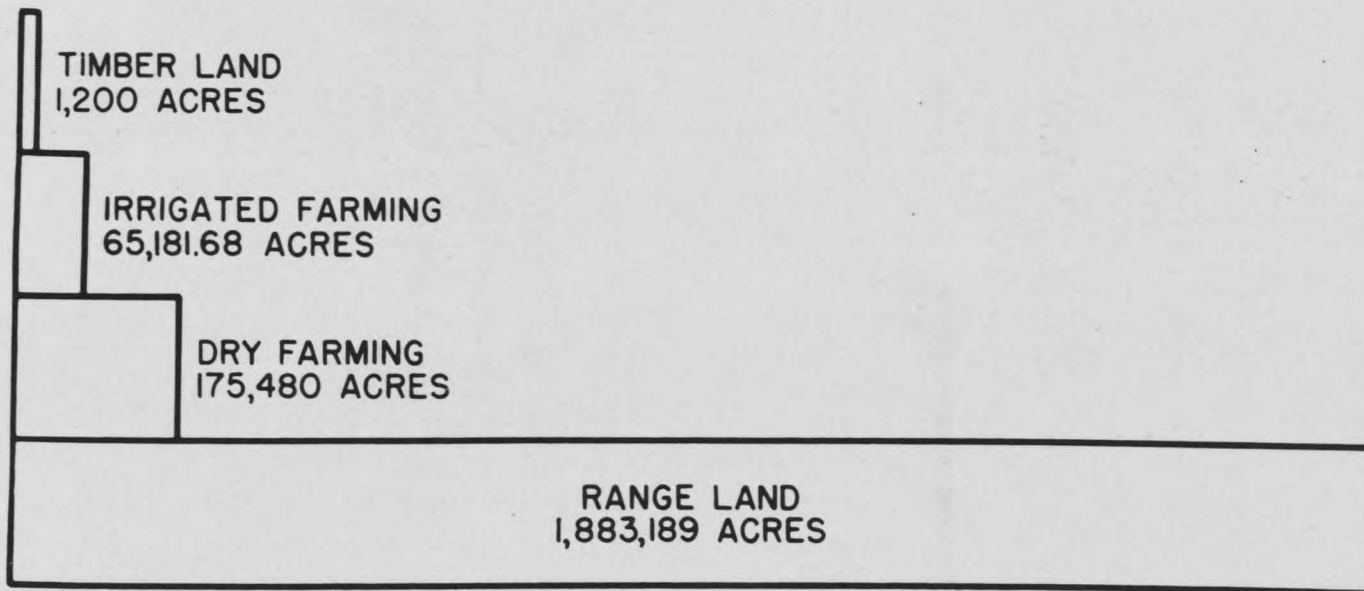
SOURCE: REPORT OF SUPERINTENDENT OF CROW INDIAN AGENCY TO COMMISSIONER OF INDIAN AFFAIRS FOR 1938

Figure 13.--Land Utilization on Crow Reservation, 1938.

TABLE XII. LAND CLASSIFICATION ON CROW INDIAN RESERVATION

	Amount
Acres under Indian operation	
Dry cultivated land	3,296
Irrigated	5,021
Total Indian farmed	8,317
Grazing	79,831
Game Reserve (known as waste)	70,000
Total Indian operated	158,148
Total area cultivated during the year, both Indian and white	240,661.68
Total area grazed during the year	1,813,187
Total timber land (grazed during the year)	130,000
Total land used for administrative activities	4,306
Total waste land	65,694
Total number of farms	1,442
Number of farms operated by Indians	120
Number of farming leases to Indians by other Indians	5
Acreage in such leases	1,560
Number of grazing leases or permits to Indians by other Indians	11
Acreage in such leases	21,200
Number of leases or permits to Indians	16
Acreage in such leases	22,760
Number of farming leases to Whites	975
Acreage in White leases	705,087.68
Number of grazing leases or permits to whites	48
Acreage in grazing permits	1,260,613
Number of other leases or permits to Whites (timber)	5
Acreage in timber leases	1,000
Total number of leases or permits to Whites	1,028
Acreage leased	1,965,700.68

Source: Superintendent's report to Commissioner, 1937.



SOURCE: RECORDS AT CROW INDIAN OFFICE

Figure 14.--Land Classification on Crow Reservation, 1938.

Hay, Cereals, and Beets.--The method of utilization is indicated in figure 13. Alfalfa which is the most highly favored crop, has a yield of 2,628 tons of hay from 2,491 acres (see table XIII). One thousand six hundred tons of this hay were sold in the fall soon after harvesting when the prices were much lower than they would have been later in the season. Winter and spring wheat rank second in number of acres harvested. There was a total yeild of 20,962 bushels of wheat. Sixteen thousand bushels were stored by the Indians for their own use. The mill reports at Crow Agency show that 203,674 pounds of wheat were taken to the mill; that 123,158 pounds of flour and 71,270 pounds of mill products were issued in exchange.

The Garden Project.--The garden project is one of the most important that the Crows can carry on (see figure 15). In 1937, there were 202 gardens planted covering 240 acres. The total production from the gardens was 386,911 pounds of vegetables. (Refer to table XIII.) One hundred and thirty Indian women preserved food by canning during the past year. Six thousand, seven hundred and eighty-five cans of fruit, 10,000 cans of vegetables, and 23,400 pounds of dried foods were stored.

Grazing Land.--Seventy-nine thousand, eight hundred and thirty-one acres of land were used by the Indians for grazing purposes. They grazed 3,830 head of beef cattle, 120 head of dairy cattle, and 1,650 horses. Although they have sold \$42,485 worth of livestock including beef cattle, sheep, horses, hogs, and poultry, they still own, at the end of the year, livestock having an estimated value of \$258,922. See

TABLE XIII. ACREAGE PLANTED AND YIELDS OF CROW INDIAN FARMING

Crop	Producing Acres	Yield in Tons or Bus.	Amount Stored	Amount Sold
Alfalfa	2,491	2,628 T	1,028	1,600
Wild Hay	981	803	503	300
Sorghums	20	20	20	0
Field Corn	27	225	225	0
Wheat S & W	1,572	20,962	4,962*	16,000
Oats	583	11,250	11,250	0
Sugar Beets	16	200 T		200
Gardens	<u>240</u>	386,921 lbs.		
Total	5,930			

* Used mostly for flour and feed.

Source: Superintendent's report to Commissioner, 1937..



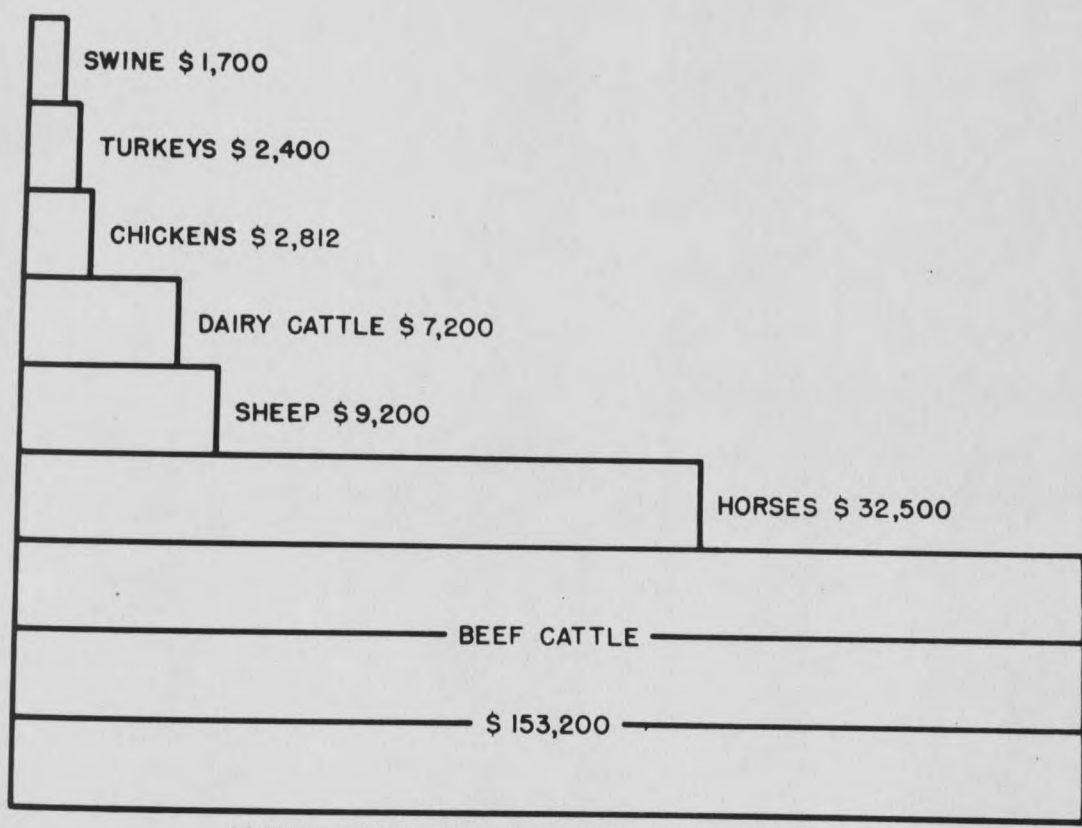
Figure 15.--Typical Crow Indian gardens.

figures 16 and 17 and table XIV.

There is one livestock association in the southeastern part of the Reservation, consisting of a group of twenty Indian stockmen banded together to range their cattle on the same range during the summer months. A range is usually leased from the tribe and a "line rider" hired to care for the cattle. In the fall when the cattle are shipped to market all expenses are pro-rated according to the number of animals owned by each individual. The average cost is about \$2.00 per head.

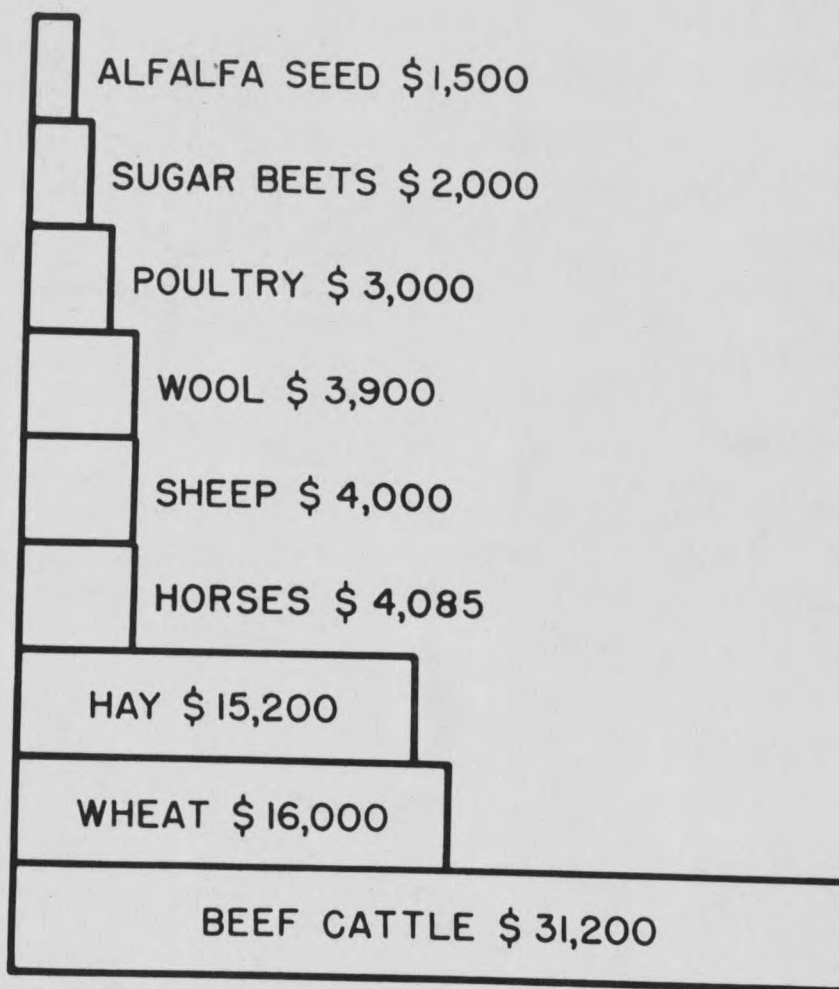
Leasing.--At the same time the Crow Indians leased to the white lessees 232,344 acres of farm land, 472,743 acres of farm pasture land and 1,260,613 acres of grazing units. The total amount leased to white men was 1,965,700.68 acres or nearly ninety-four per cent of the entire Crow Indian Reservation.

In most cases the farm and pasture leases are those small parcels of land, ranging in size from forty to several hundred acres, located in the valleys or on the first bench. In some cases the land is improved, in others the lease rentals may call for improvements to be built. The leases in most instances are for crop rentals. Usually the crop rentals are alfalfa, one-third in the stack; small grains, one-fourth delivered to market; and sugar beets, one-sixth delivered to market. When there is grass land on the farm it rents for a cash rental which depends upon the location, and varies from ten to twenty-five cents an acre. Most of the Indian land leases for a five-year period and about half of the renters release the land at the expiration of the period. As a general thing improvements on the land depreciate very rapidly under the rental system.



SOURCE: ANNUAL REPORT OF CROW INDIAN OFFICE TO THE COMMISSIONER OF INDIAN AFFAIRS FOR 1937

Figure 16.--Value of Indian owned livestock on Crow Indian Reservation, 1937.



SOURCE: REPORT OF SUPERINTENDENT OF CROW INDIAN AGENCY TO COMMISSIONER OF INDIAN AFFAIRS FOR 1937

Figure 17.--Value of farm products sold by Crow Indians, 1937.

TABLE XIV. LIVESTOCK OWNED BY CROW INDIANS

Kind	No. of Indians Owning	Value per Head	Total Units Owned	Total Value	Value re- ceived for live animals sold	Live Units Sold
Chickens	65	.50	5,025	\$ 2,512	\$ 300	500
Turkeys	24	3.00	800	2,400	2,400	800
Water Fowl	11	1.50	140	210	—	0
Dairy Cattle	60	60.00	120	7,200	—	
Beef Cattle	125	40.00	3,830	153,200	31,200	821
Sheep	6	4.00	2,300	9,200	4,000	1,110
Swine	35	10.00	170	1,700	500	50
Horses	220	50.00	1,650	82,000	4,085	

Source: Superintendent's Report to Commissioner, 1937.

On the open range, the land has been divided into larger grazing units of several thousand acres each. This is very well shown by the map of the Reservation on page 32. There are forty-eight such large units on the Crow Reservation. They are usually divided so that each unit will be well watered. These units are leased for three-year periods. All land on the Crow Reservation that is leased by the Indian Office is advertised for the highest bidder, and suitable bonds are required of the lessee.

Types of Leases.--There are three types of leases on the Crow Reservation. These are the Office lease or the leases that are under the supervision of the Government, the competent lease, and the leasing privilege.

The Crow Act of 1920 set up a commission to judge the members of the Crow Tribe as to competency and all those who were judged competent at that time have the right to lease their own land and their minor children's land without office supervision. In order to give the Indian more experience and a chance to handle his own affairs the Superintendent has the authority to grant an Indian the right to lease his own lands and to collect the rentals. During the last three-year period about half of all the Indian land leased has been under these last two types of leases.

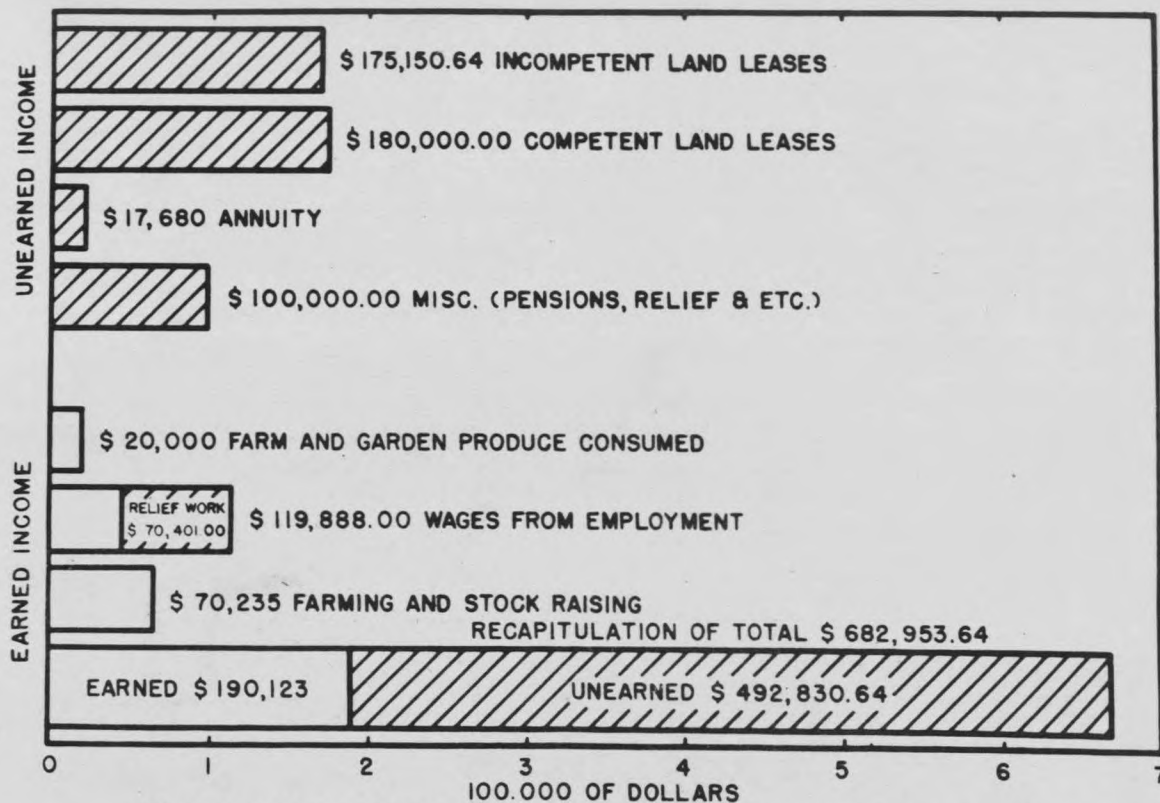
Individual Indian Money Control

For all Indian moneys that are paid through the Crow Office the Individual Indian Money Office keeps the accounts. Each enrollee has an

account and a number and a careful record of receipts and payments is kept. When money is deposited to the account of the Individual, it is held on deposit until needed by the enrollee for his support or for other worthwhile use. Then it is paid out by check by the Superintendent of the Reservation. In 1937, this office paid out \$175,150.64 to the individuals. (See figure 18.)

Irrigated Lands

The Crow Indian land is considered very valuable as there are 65,191.68 acres in the irrigation system. There are three main projects of which the Big Horn system is the largest, the Little Horn, including Lodge-Grass and Pass Creeks, is the second largest, and Pryor is the smallest. Within these systems there are eleven main canals with a total length of one hundred miles containing 465 structures. There are ninety-eight main laterals totaling 135 miles and containing 1,381 structures. In the seventy-nine miles of sub-laterals there are 138 ditches. The average elevation of the irrigated land is from 2,900 feet to 3,600 feet above sea level. There is a great abundance of water in the Big Horn system, but in all of the others there tends to be a shortage. A water shortage was recorded in the Little Horn system in 1919, again in 1921 and again in 1930, and the drought in 1934 caused the worst shortage in the history of the system.



AVERAGE INCOME PER FAMILY FOR 522 FAMILIES ON RESERVATION \$1,306.42
 SOURCE: 1937 ANNUAL EXTENSION REPORT

Figure 18.--Source of Income of Crow Indian Reservation, 1937.

Dry Land Areas

The dry land farm and agricultural land on the Reservation is similar to other land in this section of Montana. It is estimated that there are about 180,000 acres of dry tillable land on the Reservation, most of which at present is utilized for winter wheat. As is shown in the rainfall chart, (table II), the average annual rainfall has been 15.09 inches and the growing season 134 days.

The foothills and the mountains are the best livestock ranges in this section of the country (see figure 19). The most common grasses are the wheat grass, grama grass, and little blue stem. The black sage and mountain sage are very abundant and cheat grass has a tendency to creep in where the range is overstocked or in abandoned plowed fields. Salt grass and greasewood are found on alkaline soils all over the Reservation. The Forestry Division restricts the amount of livestock grazed on the range. The average for the Reservation is 27.8 acres per cow, with a range of fifteen acres per head in the southeastern part to forty-five acres per head in the northern parts. The only waste areas are the canyon walls and extreme ridges in the mountains. It is estimated that there are 65,894 acres of such land on the Reservation (see figure 20).

Property and Finance

Property Values.--The value of the property owned by the Crow Indians is shown by table XV and figures 21, 22, and 23. The total value of all individual Indian property is shown in the following table:



Figure 19.--Range land on the Crow Reservation.

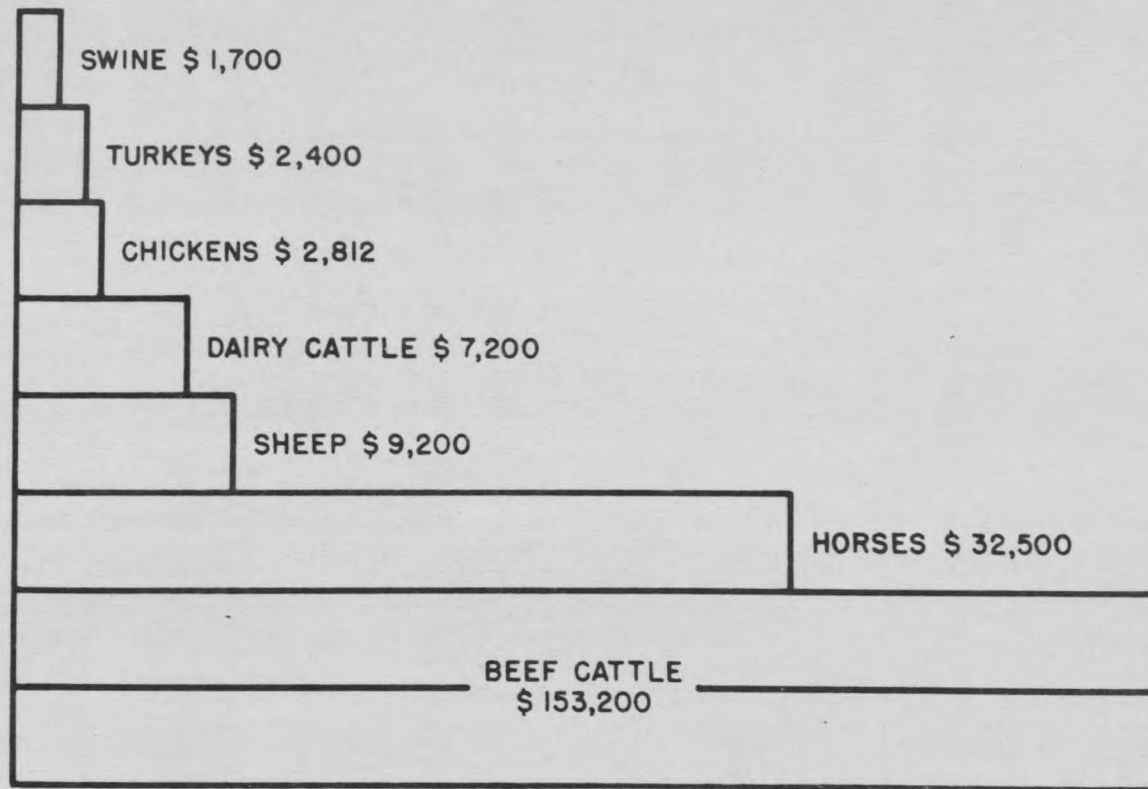


Figure 20.--A typical farming area on the Crow Indian Reservation.

TABLE XV. INVENTORY OF CROW INDIAN PROPERTY

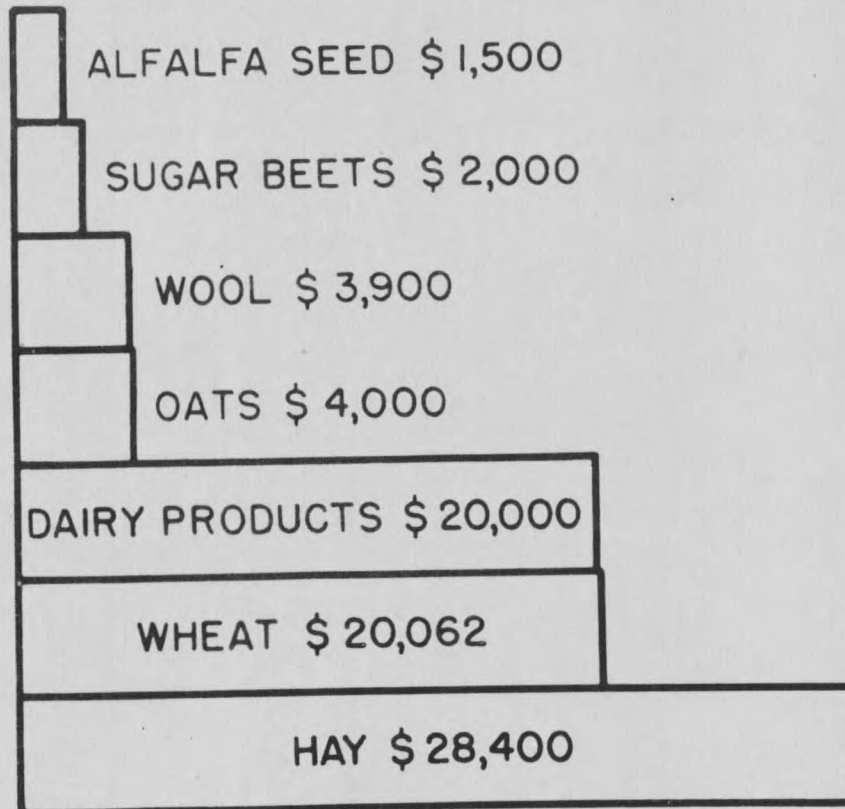
	Value
TRIBAL PROPERTY	
Acreage unallotted	279,838.39
Value of unallotted acreage	839,515.17
Amount of tribal funds in treasury	10,000.00
Value of tribal livestock (stallions)	2,000.00
Value of other tribal property (timber)	53,400.00
Total value of tribal property	904,915.17
INDIVIDUAL INDIAN PROPERTY: (Real and personal)	
Total acreage of allotted lands	1,835,919.04
Number of allotments to individuals	4,125.00
Average per acre value of individual allotted acreage—	3.00
Amount of Individual Indian Money in bank	81,685.82
Total value of homes, barns, and corrals	95,200.00
Total value of furniture in Indian homes	30,000.00
Total value of tools and agricultural implements	50,000.00
Total value of wagons and vehicles (automobiles)	64,120.00
Total value of livestock, poultry, etc.	258,922.00
Total value of other property	10,000.00
Total value of all individual Indian property	589,927.82

Source: Superintendent's Report to Commissioner, 1937.



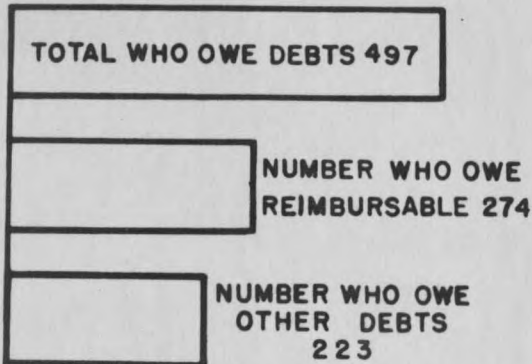
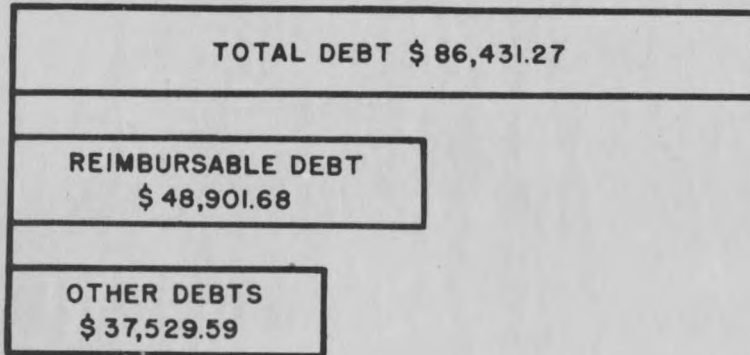
SOURCE: ANNUAL REPORT OF CROW INDIAN OFFICE TO THE COMMISSIONER OF INDIAN AFFAIRS FOR 1937

Figure 21.--Value of Indian owned livestock on Crow Indian Reservation, 1937.



SOURCE: REPORT OF SUPERINTENDENT OF CROW
INDIAN AGENCY TO COMMISSIONER OF
INDIAN AFFAIRS FOR 1937

Figure 22.--Value of farm produce grown by Crow Indians, 1937.



TOTAL VALUE OF ALL INDIVIDUAL OWNED PROPERTY
\$589,927.00 SOURCE: C.W.A. SURVEY 1934

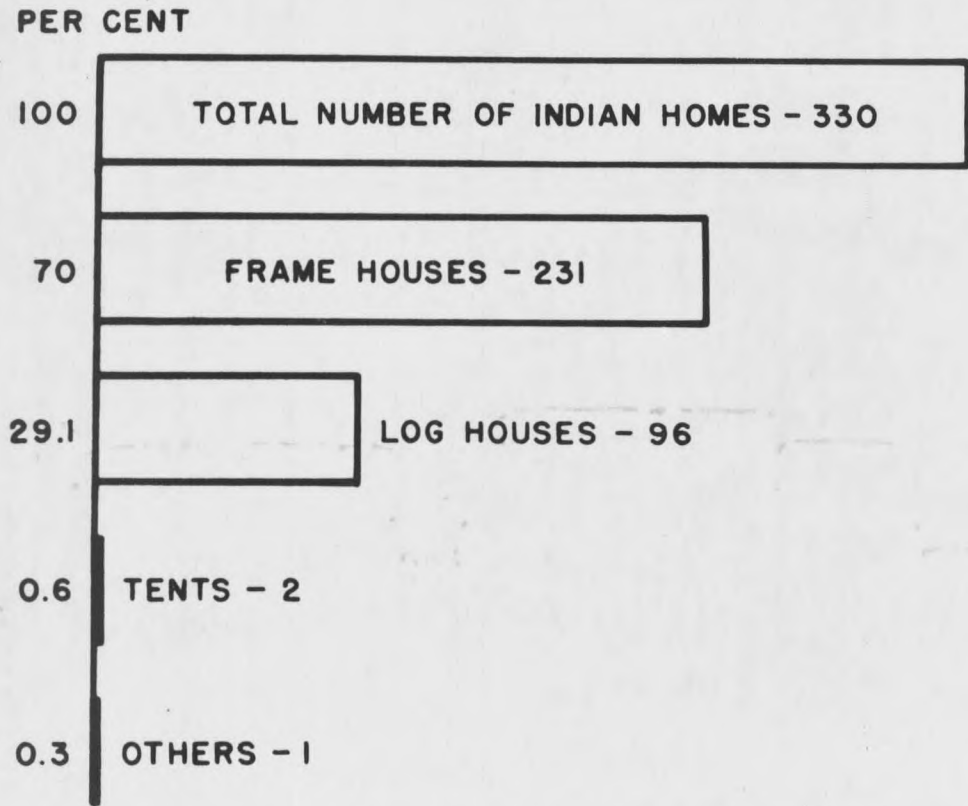
Figure 23.--Indebtedness of Crow Indians, 1934.

Money in banks	\$ 81,685.82
Homes, barns and corrals	95,200.00
Tools and agricultural implements	50,000.00
Furniture in Indian homes	30,000.00
Vehicles	64,120.00
Other property	<u>10,000.00</u>
Total Individual Indian property	\$331,005.82

In addition to this individual property the tribal property, which is mostly land, has a value of \$904,195.17. The value of the individually owned land is not estimated because of its varied location. As would be expected there is a wide range of values from the irrigated sections to the dry upland hills.

Indian Homes.--The Civil Work Administration in 1934 showed that there were 330 Indian houses on the Reservation (see figure 24). This survey shows the material from which the houses were constructed, the condition of the houses, and the number of outbuildings. The property charts, tables XVI and XVII, show the furniture and farming equipment. These charts show that at the time of the survey there was sufficient equipment for the present needs of the Indians.

Credit and Reimbursable.--The Crow Act of 1920 set up a revolving fund or as it is commonly known "The Reimbursable." This was \$50,000 set aside from the treaty payments as a source of credit for the Crow Indians for agricultural and homemaking purposes. This fund was loaned out to those needing agricultural assistance and when these individuals repaid their loans, the funds were immediately loaned out to others. This fund was revolved about three and one-half times in the last thirty-seven years. There is always a long waiting list of applicants for loans. In



SOURCE: CIVIL WORKS ADMINISTRATION REPORT, 1934

Figure 24.--Material and number of homes on Crow Indian Reservation, 1934.

TABLE XVI. IMPLEMENTS OWNED ON CROW INDIAN RESERVATION

Kind of Implements	No. of Indians Owning	Total No. Owned
Plows	264	417
Harrows	210	221
Mowers	200	204
Rakes	174	195
Wagons	296	343
Harness	520	471
Binders	48	48
Cultivators	73	79
Automobiles	187	187
Hay stackers	77	77
Tractors	17	17
Trucks	6	6
Drills	73	74
Discs	115	118
Levellers	50	50
Sweep rakes	81	95
Buggies	73	74
Sleds	60	61

Source: Civil Works Administration Survey, 1934.

TABLE XVII. FURNITURE OWNED ON CROW INDIAN RESERVATION

Kind of Furniture	No. of Indians Owning	Total No. Owned
Stoves	364	718
Tables	334	543
Chairs	321	1,556
Benches	215	285
Beds	334	722
Cupboards	318	371
Trunks	312	506
Sewing Machines	157	159
Pianos	14	14
Phones	1	1
Fire Places	1	1
Washing Machines	1	1
Radios	41	41
Victrolas	47	47

Source: Civil Works Administration Survey, 1934.

1937, the amount loaned from this fund was \$15,567. These loans have furnished almost every kind of agricultural assistance. The most constant requests are for horses, cattle, seed, and building repairs. Many of the original loans amounting to about \$30,000 are frozen and collections have not been made on them for a number of years. It is very difficult to collect from the competent Indian because he does not have funds coming through the Office and in most cases these loans are let drift rather than have the expense of a law suit. Of course, the trust land is their security and eventually these debtors will be forced to pay. But at the present, having this large fund frozen is a hardship on those deserving assistance in carrying on their agricultural activities.

During 1936, twenty different individual Crow Indians secured loans amounting to \$13,500 from the Rehabilitation Administration. The loans were granted for a number of different purposes, chiefly for starting livestock herds and for the repair of homes. These loans were made payable over a period of years at the interest rate of five per cent. In most cases the current payments have been made. In addition a fund of \$8,500 was received from the Indian Office in Washington to be used entirely for home repair. The twenty-nine different Indians who were assisted with loans at the rate of three per cent a year, have always paid the installments when due.

Relief and Labor Income.--The following table shows the number of Indians engaged in trade, professions and industries, outside of

Agricultural pursuits:	<u>Income</u>
27 Indians in clerical and office work	\$ 27,000
17 Skilled workers--carpenters, blacksmith, and auto mechanics	21,000
241 CCC-ID	62,000
150 Roads, irrigation, relief, etc.	24,487
	<u>\$134,487</u>

In 1933, the Civilian Conservation Corps--Indian Department, which is a form of the Civilian Conservation Corps, was originated. All the men employed in this organization, except some of the skilled engineers, are Indians. The work is confined to improving the Reservation mainly through conservation methods on the range and in the forest. Some of the improvements are as follows: sixty-five stock water reservoirs were constructed; fifty springs were developed; sixty-four wells with windmills have been placed on the range; several miles of truck and fire trails have been built; drift fences have been made; a fence was built across the southern boundary of the Reservation and several fine buildings have been constructed at the Agency from native stone.

The Roads Department has built twenty-five miles of standard road from Highway 87 E to the town of Pryor, and fifteen miles on a cut-off from the Agency to St. Xavier, then about twelve miles up Lodge Grass Creek. All of these improve the Reservation and increase the value of the individual Indian allotments as well as making living conditions much better on the Reservation.

Besides adding several hundred thousand dollars improvement to the Reservation and giving the Indians financial assistance during the

recent depression, these organizations have been of untold value in teaching the younger men a respect for organization and a feeling of responsibility for themselves and their families. Many of them have learned a trade such as auto mechanics, tractor operating, surveying, and many other such skills that they might never have learned had it not been for this work. Such skills can be transferred to other work or continued in the present work.

On the other hand, these relief organizations have completely disrupted the agricultural organization on the Reservation. In order to work on these projects the family has moved from its allotment to live in a camp. While they are gone the livestock strays or is stolen, the homes are broken into, and crops and gardens become weedy and dry up from lack of cultivation and irrigation. Soon the Indian sees that his property is disappearing so he sells his livestock and machinery. He discovers that he prefers to live with a group of his fellows and receive forty dollars a month rather than to live by himself on his isolated allotment even though at the end of the year he would have had more money and a well filled cellar, if he had remained at home. Soon the Indian receives permission to lease his allotment as he claims it is idle while he is away working. Leasing the allotment means that any remaining farm machinery and livestock is sold and the family takes its place in a tent on the edge of one of the little Reservation towns. Thus to the Indian living on a farm with machinery and livestock to operate it, the relief organizations have caused a retrogression, one that will take many years to overcome.

It is not merely that the family has moved from the allotments, nor that he has sold all of his personal property and wasted the money, but he also has leased his home for a number of years and in many cases has collected his lease rentals several years in advance, and in most cases has taken a severe penalty or reduction in his annual rentals because of the advance collections. Later when the family becomes destitute a few more years must be added to the lease or more relief given.

Summary

The Crow Reservation comprises acres of valuable land, but the tenure of the land is in such a complicated state because of the various allotments and heirship status that it is impossible for the individuals to use their holdings advantageously. Only about six per cent of the land is utilized by the Indians themselves, while about ninety-four per cent is leased to white men. Individual Indian property exclusive of land, has a valuation of \$331,005.82 while the tribal property valuation is about \$904,915. The Indian loan funds have been used advantageously in assisting the farmers to improve their homes and begin farm operations. Relief organizations have met immediate needs of the people by giving them work on projects, but in the long view this relief has been detrimental to the agricultural program by taking farmers and stockmen from their allotments to the villages.

The problem, then, is not only how to interest the Indian in returning to his allotment, but how to finance him while he makes a new start.

CHAPTER V. THE FUTURE UTILIZATION OF THE
CROW INDIAN RESERVATION

The first chapter outlined in detail the many treaty payments that the United States Government gave to the Crow Nations. It has been shown that several million dollars have been paid to the individuals in cash annuities and in clothing, rations, and other supplies. It has been shown that every Crow family when it began farming was given equipment and livestock with which to work its allotment. It has been shown that they were given herds of cattle, that their land was surveyed and most of the irrigable lands had been ditched and water furnished those utilizing their own land. It has been shown that they have been provided medical care, hospitalization, and educational facilities. Two religious denominations have sent missionaries and thousands of dollars for the tribe's religious welfare.

The chapter shows the surface, geology and natural resources of the Reservation. It has pointed out that with 65,000 acres of irrigated land and over 150,000 acres of dry farm land, and with about 2,000,000 acres of range land that the Crow tribe under the proper management of its resources could be economically wealthy. But it was also shown that the old adage is still true, "easy come, easy go." It has been shown that the annuity payments have been wasted and are still being squandered. It has been pointed out that the Crows within the last few years have moved off their allotments, rented their lands, and are living in tents and make-shift houses on the edge of the small towns (see figure 25).



Figure 25.--Typical Indian "shacks near the edge of Crow Agency.

More Indian land is under lease today on the Crow Reservation than ever before.

But it was also shown that in the last few years the young men and women have been trained in various trades and that it is felt that, they as individuals are perfectly capable of earning a living for themselves if the necessity arose.

It is now believed that the Crows realize that the time has come when they must earn their own way or suffer the consequences, by having a lower standard of living than their neighbors. It is felt that if the Crows were given another chance and made to realize that their future depends on their own efforts, they would try harder and make a determined effort to retain what they earn when they really learn that the Government will not come to their rescue every time they put in a request. Therefore, an endeavor will be made to show how these resources on the Reservation could be made to furnish the Crow Tribe an excellent livelihood and as time goes on make them independently wealthy.

Consolidation of Land Holdings

Because there were twelve different allottings on the Crow Reservation, each allottee's land is widely scattered and because of the many heirship holdings, it is felt that one of the first endeavors should be to consolidate individual holdings of the many different parcels of estates into one tract in order that the individual can utilize his own land for farming or stock-raising. There are a number of different ways of consolidation.

Partition of Holdings by Land Clerk.--One of the most practical ways is to set up the position of land clerk at the Crow Indian Office. This clerk should appraise the different holdings of each individual in the many estates, and then try to get the heirs to agree to accept tracts of these holdings in such a way that specific acreages could be partitioned to one certain individual. In many cases these small tracts could be selected so that they would be adjacent to land already owned by the heir, thus it would enlarge his acreage in one location.

A specific example of this arrangement is the case of Oliva Williamson and her brother, Paul Williamson: At the present time Oliva is living on the allotment that belongs to the estate of their mother, Maud Williamson. There are six heirs to this allotment--the father, Dexter, who owns $\frac{5}{15}$ interest in the estate; then the five children, Paul, Dexter, Jr., Julia, Leda, and Oliva, each owning $\frac{2}{15}$ interest. Paul Williamson is married and living on another forty of this same estate. Both Paul and Oliva have built improvements on the forties on which they live and desire to exchange other land interests for these particular forties. The Estate of Maud Williamson has been appraised and it has been found that if Oliva and Paul relinquish their holdings in all of the remainder of Maud's estate, it will about equal in value holdings of the other heirs in these particular forties. The other heirs are willing to make this exchange. Therefore when this problem is worked out Paul and Oliva will both own the particular forties on which they are living and will have relinquished all other rights in the estate of Maud Williamson, leaving the remainder of the estate as follows: Dexter

Williamson will own 5/11 of the remaining estate, while Dexter, Jr., Julia and Leda each will own 2/11 in the balance. Very likely if the need were felt the other heirs could consolidate the remaining holdings in a similar manner.

Another very good example of land consolidation of heirship holdings is that of the Big Lake family. A chart of the possibilities of this exchange is given in table XVIII. These lands have all been appraised by a field man for probate purposes. While in this proposed exchange Thomas Big Lake would lose \$221.51 of the appraised value, his consolidated holdings would be worth much more to him than as they are at present, scattered widely and jointly owned by three other people. In this case there are four different allotments involved and it is to the interest of Thomas Big Lake to have the land partitioned in order that he may live on his interest of another estate. The other heirs have requested that their holdings be partitioned at the same time. If these heirs obtain title for a particular piece of land, then it will not be necessary to obtain permission from the others, either to use the land themselves or to lease it. It is relatively simple to secure clear titles in many of the estates if a little care and thought is used before too many heirs become involved.

Specific Requests in Wills.---Another excellent way to prevent the allotments from being left to so many heirs, is to use care in making the wills. In the early history of the Reservation the Indians did not understand wills nor care for them. But at the present time almost every Indian makes a will. Some government employee, usually the farm agent

TABLE XVIII. POSSIBILITIES OF LAND HEIRSHIP CONSOLIDATION CROW INDIAN RESERVATION

ALLOTMENT	NO.	DESCRIPTION	CLASSIFICATION LANDS		VALUE	TOTAL
			IRRIG. ACRES	DRY FARM ACRES			GRAZING ACRES
Ioretta Bird	262	SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 36-3-32 E $\frac{1}{2}$ E $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 20-2-31 All, Sec. 21-2-31 S $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SW $\frac{1}{4}$, Sec. 16-3-31	5	36	\$ 400.00	
				840	3560.00	\$ 3760.00
Francis Big Lake	2684	SE $\frac{1}{4}$, Sec. 31-2-32		160	640.00	640.00
Louis Big Lake	2682	E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 16-3-32		158.18	632.72	632.72
Charles Big Lake	2683	Lots 3, 4, S $\frac{1}{2}$ NW $\frac{1}{4}$, Sec. 5-3-32		162.13	648.52	648.52
				1360.31 Acres	\$ 5681.24	\$ 5681.24

HEIRS	INTEREST IN ALLOTMENT	INTEREST VALUE	LAND PARTITIONED DESCRIPTION	TOTAL ACRES	PARTITION VALUE TOTAL
Thomas Big Lake	No. 262 3/9	\$ 1253.38	E $\frac{1}{2}$ E $\frac{1}{2}$ SE $\frac{1}{4}$, Sec. 20		
	No. 2682 6/9	421.82	S $\frac{1}{2}$, Sec. 21-2-31		
	No. 2683 6/9	432.37	Lot 4, Sec. 25-1-33		
	No. 2684 6/9	426.57	S $\frac{1}{2}$ NW $\frac{1}{4}$, Sec. 16-3-31		
	(Total Int. Value	\$ 2534.24)	SW $\frac{1}{4}$ NW $\frac{1}{4}$, Sec. 36-3-32	518.18	\$ 2312.72
James Big Lake	No. 262 2/9	\$ 835.54	E $\frac{1}{2}$ SW $\frac{1}{4}$, NW $\frac{1}{4}$ SE $\frac{1}{4}$, Sec. 16-3-32		
	No. 2682 1/9	70.30	Lots 3, 4, S $\frac{1}{2}$ NW $\frac{1}{4}$, Sec. 5-3-32		
	No. 2683 1/9	72.06			
	No. 2684 1/9	71.11			
	(Total Int. Value	\$ 1049.00)		262.13	\$ 1128.62
Dorothy Big Lake	No. 262 2/9	\$ 835.54	SE $\frac{1}{4}$, Sec. 31-2-32		
	No. 2682 1/9	70.30	S $\frac{1}{2}$ NE $\frac{1}{4}$, NE $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 21-2-31		
	No. 2683 1/9	72.06			
	No. 2684 1/9	71.11			
	(Total Int. Value	\$ 1049.00)		280.00	\$ 1120.00
Mary Agnes Big Lake	No. 262 2/9	\$ 835.54	NW $\frac{1}{4}$, NW $\frac{1}{4}$ NE $\frac{1}{4}$, Sec. 31-2-31		
	No. 2682 1/9	70.30	N $\frac{1}{2}$ SW $\frac{1}{4}$, Sec. 16-3-31		
	No. 2683 1/9	72.06			
	No. 2684 1/9	71.11			
	(Total Int. Value	\$ 1049.00)		280.00	\$ 1120.00
Total Int. Value all allotments -		\$ 5681.24	Total Acres	1360.31	\$ 5681.24

or the field clerk writes the will. Examples of two wills written on the Crow Reservation are given in figures 26 and 27. Both of these wills were probated by the Secretary's office and both were accepted and approved as written. These wills were selected because they are short and an explanation of them is easy. In Amy Leider's will (figure 26), four forties were left in equal share to her three daughters, the legal description of none of the land in the will is given. Then in the fourth section, nine forties more were to be divided among four children. As will be noted the share in the last named forties was to be different from that in the first named forties.

Now, if the will of Medicine Horse (figure 27), is studied, it will be noted that each parcel of land is described by legal description and given to one specific individual. The land described will be owned by the parties named without restriction. Each beneficiary can use the land as desired, or he may lease it without regard to any of the other beneficiaries. While in the case of the beneficiaries of Amy Leider, one of them cannot use any of the land without the consent of the other heirs nor can the land be leased without the signatures of the majority of the heirs. This is important for often the heirs are not satisfied with the same lessee. This dissatisfaction causes trouble and hard feelings between the heirs and usually results in friction between lessors and lessee.

With a little thought on the part of the testator, a large number of heirship problems could be prevented. Even though the legatee

INDIAN WILL UNDER THE ACT OF JUNE 25, 1910 (36 Stat. L., 855-856)

AS AMENDED BY THE ACT OF FEBRUARY 14, 1913 (37 Stat. L., 678).

LAST WILL AND TESTAMENT

OF

Amy Leider #1751

I, Amy Leider of the Crow

Tribe, of the State of Montana, being of sound and disposing mind, realizing the uncertainty of human life, do make this my Last Will and Testament, hereby revoking all former wills by me made, in manner and form following, that is to say:

FIRST.—I desire that all my legal debts be paid, including the expenses of my last illness, funeral, and burial.

SECOND.—I give, devise, and bequeath to Agnes Leider, and her sisters, Betty Bearcloud, Mary Light in equal shares the home place which consists of 4 Forties. Agnes Leider is to act as guardian to her sisters. Of the three forties joining the Carl Leider place I give to Carl Leider, Jr. two forties, and one forty to Caroline Spotted. The wagon and harness to Carl Leider.

To Betty Bearcloud and Mary Light, a black mare. The implements and machinery are to be left at the home place, to Agnes Leider and her sisters. The land between Hoodoo and Grape Vine, and the nine forties on the Big Horn are to be divided among the four children, Agnes, Carl, Betty Bearcloud and Mary Light.

I give, devise, and bequeath all of the rest and residue of my estate, real, personal, and mixed, to

To my husband, Simon Bulltail I give the sum of \$1.00. It is my wish that Felix Bearcloud have nothing to do with Betty and she be under the sole guardianship of Agnes Leider. All the rest and residue of my estate, real and personal, not otherwise disposed of I give and bequeath to my four children in equal shares.

*

In witness whereof, I, Amy Leider, have hereunto set my hand, sealed, published, and declared this to be my Last Will and Testament,

this 24th day of June, in the year of our

Lord one thousand nine hundred and Thirty-two.

Witnesses:

/signed/ Ruth Anderson /signed/ Amy Leider (L. S.)

Residing at St. Ann's

/signed/ Mary V. McLean

Residing at Crow Agency

* IF MORE SPACE IS NECESSARY TO DESCRIBE PROPERTY, AFFIX A SEPARATE SHEET AT THIS POINT.

NO RIGHTS OF AN EXECUTOR ARE TO BE RECOGNIZED

Figure 26.--An Indian Will

The foregoing instrument of writing was here and now signed by
her
Amy Leider in our presence, and at ~~his~~ request
and in the presence of each other we have signed as witnesses and she
has published and declared this to be ~~his~~ [her] Last Will and Testament.

/signed/ Ruth Anderson

Residing at St. Ann's, Montana

/signed/ Mary V. McLean

Residing at Crow Agency, Montana

This is to certify that on the 24th day of June 1932, Amy Leider, a member of the Crow Tribe requested that we write a will for her. George White Fox interpreted for her. After the will was written, I read it back to her in the English language, first asking her if she clearly understood it. She stated she clearly understood it and was satisfied with the contents. She disposed of her own allotment and all her inherited interests.

There were present in the room Amy Leider, George White Fox, Interpreter, Ruth Anderson, members of the Crow Tribe, and myself, Junior Clerk. I am satisfied that Amy Leider was in full possession of her faculties and capable of making a will. There was no indication of undue influence having been used.

/signed/ Mary V. McLean
Junior Clerk.

I certify that on the 24th day of June, 1932, I was asked to witness the making of a will by Amy Leider. Amy Leider stated her wishes through George White Fox, Interpreter, and the will was written by Mary V. McLean, Junior Clerk, who read it back to her, and she expressed herself as satisfied. There were present in the room, Mary V. McLean, Amy Leider, George White Fox, and Ruth Anderson. There was no indication of undue influence having been used. I am satisfied that Amy Leider was in full possession of her faculties and capable of making a will.

/signed/ Ruth Anderson

I certify that I acted as Interpreter in the making of a will of Amy Leider; that Amy Leider understands and speaks the English language; after the will was made it was read to her by Mary V. McLean. Amy Leider stated that she clearly understood the contents of the will and was fully satisfied with the contents. I am satisfied that Amy Leider was in full possession of her faculties and capable of making a will. There was no indication of undue influence.

/signed/ George White Fox

PROBATE
49032-33 DEPARTMENT OF THE INTERIOR
A B M OFFICE OF THE SECRETARY.
Jan. 16, 1934

Pursuant to the provisions of the act of February 14, 1913 (37 Stat. 672), the within will is hereby approved.

/signed/ OSCAR L. CHAPMAN
Assistant Secretary.

INDIAN WILL UNDER THE ACT OF JUNE 25, 1910 (36 Stat. L., 855-856)

AS AMENDED BY THE ACT OF FEBRUARY 14, 1913 (37 Stat. L., 678).

LAST WILL AND TESTAMENT

OF

Medicine Horses, #114

I, Medicine Horses of the Crow

Tribe, of the State of Montana, being of sound and disposing mind, realizing the uncertainty of human life, do make this my Last Will and Testament, hereby revoking all former wills by me made, in manner and form following, that is to say:

FIRST.—I desire that all my legal debts be paid, including the expenses of my last illness, funeral, and burial.

SECOND.—I give, devise, and bequeath to Susie Leider, that part of the Yellow Face allotment described as E/2 NE/4, NE/4 SE/4 Sec. 5, T. 7, R. 32 E. Verde Straight Bird, that part of the Yellow Face Allotment described as Lots 3, 4, Sec. 4, T. 7, R. 32 E. Puth Other Bull, that part of the Yellow Face allotment described as E/2 NW/4 Sec. 4, T. 7 S., R. 32 E. To Carl Leider, Jr. NE/4 SE/4 Sec. 34, T. 1 S., R. 32 E - Susie Leider by codicil. To Agnes Leider, Lots 4, 5, 6, Sec. 14; Lots 15, 16, Sec. 1, T. 1 S., Joe Stewart NE/4 NE/4 Sec. 20, T. 3 S., R. 26 E.

I give, devise, and bequeath all of the rest and residue of my estate, real, personal, and mixed, to Puth Other Bull, Susie Leider, and Verde Straight Bird in equal shares.

IF MORE SPACE IS NECESSARY TO DESCRIBE PROPERTY, AFFIX A SEPARATE SHEET AT THIS POINT.

NO RIGHTS OF AN EXECUTOR ARE TO BE RECOGNIZED

* In witness whereof, I, Medicine Horses, have hereunto set my hand, sealed, published, and declared this to be my Last Will and Testament, this eighteenth day of April, in the year of our Lord one thousand nine hundred and thirty-three

Witnesses:

Charles Spencer Medicine Horses (Her thumb mark) S. Residing at Crow Agency, Montana. Sampson Bird in Ground Residing at Crow Agency, Montana

Figure 27.--An Indian Will

*The foregoing instrument of writing was here and now signed by
Medicine Horses..... in our presence, and at his request
and in the presence of each other we have signed as witnesses and he
has published and declared this to be his [her] Last Will and Testament.*

..... Charles Spencer

Residing at Crow Agency, Montana

..... Sampson Bird in Ground

Residing at Crow Agency, Montana

6-4771

This is to certify that on the eighteenth day of April, nineteen hundred & thirty three, Medicine Horses, a woman of the Crow Tribe of Indians came to my office and asked me to make her will. I asked Sampson Bird in The Ground to act as interpreter for me. Medicine Horses told Sampson Bird in The Ground in the Crow Language what her wishes were and he in turn translated them into the English language for me and I took them down in the form of a will. Sampson then read the will and translated it back into the Crow language and Medicine Horses said that it fully expressed her wishes as to the disposition of her property.

I believe that Medicine Horses was under no undue influence in the making of this will and in full possession of her mental faculties.

/signed/ Charles Spencer
Farm Agent

This is to certify that I, Sampson Bird in The Ground was asked to act as interpreter for Medicine Horses in making of her will. Medicine Horses told me her wishes in the Crow Language and I translated them into English for Charles Spencer to take down in the form of a will. After the will was written I read it and translated it back into the Crow language for Medicine Horses and she said it fully satisfied her desires as to the disposition of her property.

I believe Medicine Horses was under no undue influence in the making of this will and in full possession of her mental faculties.

(signed) Sampson Bird in Ground
Interpreter

CERTIFIED: A TRUE COPY:

(signed) Edward Conley
Examiner of Inheritance.

does not receive exactly the amount of land that the person making the will desires, the net worth of the legacies may be so equalized and adjusted that over a long period of years the resulting satisfaction in being the full legal owner of a definite tract will far outweigh the little money value gained by having a share in an undivided estate.

Tribal Land Purchases.--Another method that would help solve the complicated heirship holdings is for the Tribe to purchase these tracts and to lease them to the highest bidder exactly as is done with the present tribal land. The Tribe at the present time owns 272,640 acres of land from which the average annual lease rentals are \$35,000. At the present time these rentals are paid out in annuity payments to each member of the tribe. The amounts of these payments are so small, about \$10.00 that they do the individual very little good and are usually squandered in various ways. It would seem as if the proper procedure would be to spend these funds for something that would benefit the tribe in the future. If these complicated heirship holdings were purchased the tribe would receive immediate returns from its investment from the increased lease rentals. In order to use the funds for this purpose it would be necessary to secure the cooperation of the tribal council. It has been the tendency the last few years of the Indian Office in Washington to refuse to allow the Tribal funds of other tribes to be dissipated in subsistence living or in needless purchases although no such ruling was made for the Crows. Nothing could be more worth while than to build up their own Reservation and to conserve their own natural resources.

Purchase by One Heir.--Another method that could be used and is to be recommended on many of the complicated land holdings, is for one of the heirs to buy all of the other shares. The Survey made in 1934 shows that there were 1,831 Crow Indians owning land on the Reservation (see table IX, page 69). This means that the arithmetical average of land ownings is 1106 acres per person. A certain portion of the rentals from these lands each year would soon make the necessary payments. In the years past this practice has been tried in a few cases and recently some of the heirs have signified their willingness to purchase the holdings of the other heirs in some of the complicated estates.

Cattle Purchase

Inasmuch as the Crows have disposed of their personal property to such a large extent that it is impossible for them to work their allotments or to stock their ranches with livestock, it is suggested that the Tribe secure a loan of \$500,000 from the Federal Government, to help restock their range and to make loans to individual Indians for rehabilitating families on their allotments. The Government is making advancements to the Tribe continuously, but in such small amounts that very little good can be accomplished. The experience of repayments on the Reimbursable and the Rehabilitation loans for house repair prove that the Crow Indians will meet their loan obligations if the proper supervision is given. Five hundred thousand dollars should be loaned to the Tribe at the rate of three per cent interest each year. Four hundred thousand dollars of

this should be used for a tribal livestock cooperative and the remaining \$100,000 loaned by the tribe to selected individuals to rehabilitate their allotments.

As was shown in the property table on page 92, the total worth of the Crow tribal property is \$904,915.17 and the personal property of the individual Indians was estimated at \$589,927. No attempt was made to estimate the value of the allotted land. A loan of \$500,000 with the present population of 2,200 would be only \$227.27 for each individual. This loan could be repaid from the proceeds of the present Tribal property in twenty years without any assistance from the business for which the loan was obtained.

The Plan.--A board of three directors should be elected by the Tribal Council to cooperate with the Indian Office in the operation of Tribal business. Four hundred thousand dollars should be set aside for the cattle operations, \$300,000 should be used to purchase 6,000 head of young well-bred southern cows and bulls, \$100,000 should be held in reserve to purchase the first winter's feed. One ton of hay per animal should be sufficient. This feed should be purchased from the Indians farming or Indian share rentals. If this hay is purchased in the fall it could probably be purchased for \$5 per ton. The sum of \$30,000 or two years' interest should be reserved to meet these obligations when due. Inasmuch as the range is fenced, the expense for range riders and help should not be very great. For a herd of this size, 180,000 acres should be sufficient. At ten cents per acre, a year's rental would be \$18,000. With the present Extension Service on the Reservation, the Extension Agent and Farm Agents

should keep the books, give necessary advice and other technical assistance needed. The remaining funds should be held as a reserve for emergencies that might arise.

As will be noted on the Reservation map, figure 5, the range land west of the Big Horn River, shown as unit No. 24 would be an excellent tribal range (see figure 28). It is completely fenced; there is plenty of water both winter and summer from creeks and from water reservoirs built by the Civilian Conservation Corps, Indian Department. There is no place on this range more than three miles from water. As noted this range extends into the Big Horn Mountains, therefore there is excellent summer feed. The plains are broken enough to be excellent for winter range and are close to the feed supply in the Big Horn Valley. At the present time this range is utilized in this manner by the E. L. Danna Cattle Company, which is one of the largest cattle companies in the United States. About two miles north of the range is a Burlington Corral and loading chutes so that the cattle would not have to be driven far to load them when marketed. Close to this corral is a large reservoir that would supply water to many times this number of cattle.

This region is all all-year range, for the wheat grass and the little blue stem start in the lowlands early in the spring, and the cattle follow the growth of the grass back toward the mountains. During the summer months there is excellent grass, water and shade in the uplands. Another advantage to mountain range is the freedom from flies which annoy the cattle. As winter approaches, the herd could graze back toward the winter range in the valleys. The present lessees of this

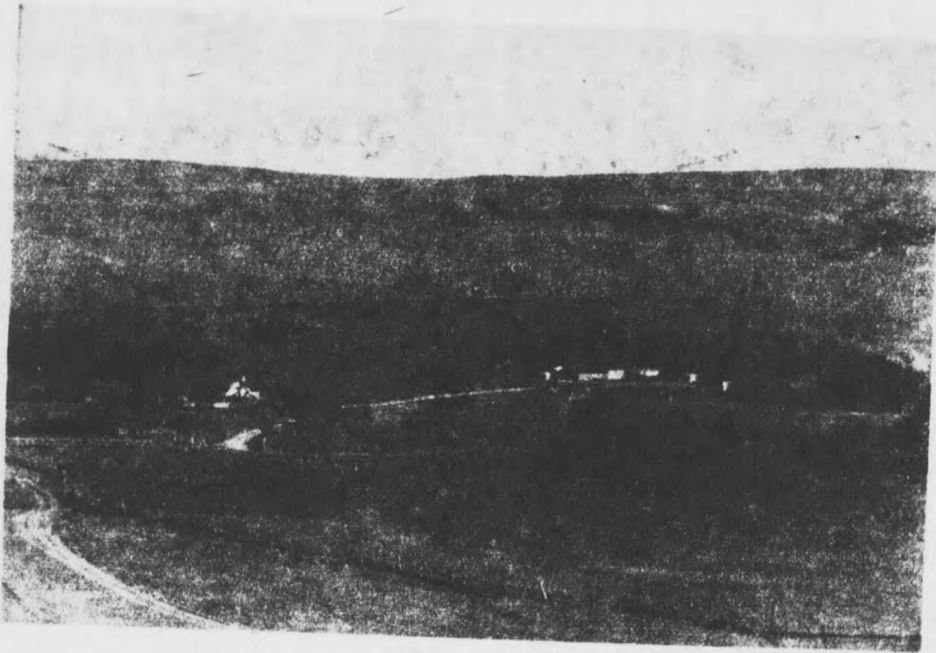


Figure 28.--Range land on the Crow Reservation.

range do very little winter feeding. The wheat grasses cure or ripen into excellent feed when left standing on the range. There is sagebrush on the hills which the snow seldom covers so deep that it cannot be obtained by livestock. The sagebrush will supplement the feeding operations during a severe storm when the range grasses are covered with snow.

Bred heifers should be purchased with calves to drop in the spring, then the steers should be wintered and placed on the market early the second year. The time to place them on the market would depend on the amount of feed available, the number of cattle on the market and the price of grass-fat steers. All cows and heifers should be kept for breeding purposes, so that the herd would gradually build itself up to utilize all of the Crow Indian range land. It is estimated that the steer would pay the operation cost and interest on the funds borrowed until such time as the herd has grown enough so that repayments could be made on the principal.

A very good example of this method of operating a cattle herd is that of H. A. Willcut. At one time Mr. Willcut was a field clerk in the employ of the Indian Service. He left the service and took over the operation of the herd for the E. L. Danna Cattle Company. He saw the possibilities of a herd of his own. With his savings he purchased a few cattle and rented land from the Crow Indians. He paid rentals on the land and all expenses on the operations of his holdings and has built up his herd to the number of 5,000 head and owns a well-improved ranch of 1,000 acres, which is known as the Grape Vine Ranch. This ranch is adjacent to the range recommended for the Crow Cooperative cattle herd.

Mr. Willcut says that his property and livestock are free of all encumbrances and worth about one-half million dollars.

Numerous other such examples of cattle operators making a success on the Crow Reservation could be cited. If Mr. Willcut and others could make a success of the cattle business and pay all taxes after going into the game without capital, the Crow Indians should make a success of the same kind of business when they have no taxes to pay and do have a large capital with which to start the business. In addition, they would have the advantage of large quantity buying and selling and the advice and assistance of the Indian Service.

Individual Rehabilitation

The remaining \$100,000 of this loan supplemented with the present Crow Revolving Fund should be used to rehabilitate worthy families on their allotments. If care is used in the selection of the families rehabilitated, very much good could be accomplished with this amount. Many of the families have allotments in the irrigated valleys that are either partially or well-improved so that the largest item would be machinery and power to operate the machines. In most cases \$1,000 would be ample to start a family on its own allotment. As is shown in the temperature and rainfall charts, the Reservation is ideally situated for alfalfa and small grains and every family should grow a substantial garden and have a potato field. It is estimated that from 115 to 120 different families could be rehabilitated the first year (see figure 29). This rehabilitation fund should be used as a revolving fund and as rapidly as the



Figure 29.--An inexpensive house built for Mark Realbird with the use of the Crow Reimbursable Revolving Fund.

installments are paid by one family these funds should be loaned to another worthy Indian. In this way the younger couples just married could be given assistance in starting a home away from their parents.

Ideal Family Set-Up.--It is suggested that an ideal set-up for a family living in the irrigated valleys would be to have a small flock of chickens, a sow, two dairy cows, and four head of mares. These mares should be used to produce colts as well as for power to carry on the farm operations. The balance of the money should be used for seed and machinery. Three or four families could work together, thus save buying more than one large and expensive machine such as a hay stacker, drill, or binder. Then too, large savings could be made if these purchases were made in large quantities and advertised in the name of the Indian Service as is done with the purchases made by the Government.

Ideal Rotation for Irrigated Lands.--An ideal rotation for the irrigated lands is alfalfa, oats, wheat, and an early variety of dent corn. The alfalfa should be plowed under every five years. Alfalfa yields very well, many years three cuttings can be harvested with a total yield of five tons per acre. Oftentimes the production of seed is an excellent method of utilizing the crop. The first cutting should be harvested for hay and the second crop grown for seed. The climate in this section is ideal for good seed. The straw after threshing is fair feed for cattle if it is properly stored. All hay which the Indian family does not need for its own livestock should be sold to the Tribal Herd Cooperative, but care should be taken not to allow any feed to be sold that is needed for

home use.

Since the building of the Sugar Factory at Harden, sugar beets will work into the rotation and thus furnish a cash crop and the beet tops feed for livestock. As stated above a number of families could buy the more expensive machinery cooperatively and thus reduce the expense per family in financing this project.

The Operation of Dry Farm Land.--It is not recommended that many of the Indian families be rehabilitated on dry land farms. In most cases it will not be necessary, because at least one member of the family will own irrigated land. Also the hazards of dry farming make it very undesirable. But for those who wish to try this type of farming, winter wheat planted on summer-fallowed land is most satisfactory. At least half of the wheat land should be kept fallow each year. The growing of certified Grimm and Cossack alfalfa seed has been very profitable the past few years, the threshed straw being consumed for livestock feed. Also the producing of crested wheat grass for seed and for hay is worth considering. In many years the valleys and benches may be cut for wild prairie hay. This hay usually commands a premium price as horse feed.

Each family should have a subsistence garden that is well protected by a shelter belt. Also poultry, milk cows, and hogs should be produced to furnish the family with these necessary food supplies. For those dry land farmers that are adapted to turkey raising, this type of work is recommended. Turkeys are usually profitable on such a farm because the necessary feed can be produced on the farm and there is plenty of open range for the turkeys.

Pastures in Irrigated Farming Areas.--For those allotments not having pasture for dairy cows, a few acres of the Huntley Grass mixture should be planted. This grass makes excellent feed for cattle and horses, besides complying with the Soil Conservation Administration program. This pasture should be planted on the less productive land on the allotment and help to improve the economic worth of the farm. A large pasture is not needed because of the adjacent range land which should be used for beef cattle or range horses. A small alfalfa field should be available for the sow and her litter. If the hogs are grown on alfalfa, very little grain would be needed except for fattening. In this way the family would produce its own meat and lard.

Spare Time Work.--It is suggested that the Indian families could use their spare time repairing the improvements on the allotment, such as buildings and fences.

Farm Shelter Belt.--Every farm family should have a shelter belt on the north and west sides of the homestead. These trees can be obtained at a very small cost from the cooperative nursery at Missoula and such shelter belts add many dollars to the worth of the home and make it a much more pleasant place in which to live. Such a shelter around the garden plot would be worth much for wind protection to the growing vegetables.

Subsistence Farming.--It is not advocated that the Indians at first begin commercial farming. For a few years it is suggested that they merely try subsistence farming and then gradually grow into larger units. Many

mistakes were made in the past by trying to urge the Indians to develop too rapidly. Indians would invest a large sum of money in implements and livestock and contract a large debt, then have a crop failure or strike a period of low prices and consequently become discouraged and quit, but would still have the big debt to pay. It would be much better to start slowly and let the business grow. This would give the operator a chance to secure the needed experience to operate a larger unit of business.

Livestock Association.--For those living in the valley and not having sufficient range for their beef cattle, a livestock association would solve the problem. A number of farmers could organize and rent a unit the size needed for their livestock and pro-rate the operating expenses. If these units were leased in each farm district they would be close enough for the owners to see their livestock occasionally, and it would not be necessary to drive the cattle so far each spring and fall. In this way one line rider could care for the livestock for the whole community and the owners could go about their daily routine without spending so much time caring for their small beef herd. The annual fees of the present Indian livestock association for the summer season is \$2.00 per animal, which is sufficient to meet all expenses. The cattle are gathered at one central point in the spring, then a group of Indian riders help drive them to the association range. During the summer, one rider is able to care for the entire herd, thus the time of twenty men an hour or so every day is saved. In the fall a group of riders go to the range, help round up the herd and drive them to a central corral where each owner cuts out his own cattle and takes them home for the

winter months. In this way the pasture and range close to the individual allotment can be saved for winter feed.

Repayment of Loans.--Because the Crows are fortunate in having many acres of land that would not be utilized by the subsistence farmers for a number of years they could pay the interest and installments on the loan from lease rentals from this surplus land. It would be possible to use the lease rentals in this manner because loans should not be given to families whose farm program does not show that the farming or ranching operations would furnish a living for the family. It is believed that if a large number of the Crow families could start supporting themselves on their allotments, it would be a good example for others to try for themselves. If the Crow children could be reared on a ranch or farm where the family is self-supporting, it is believed that the next generation of ranchers or farmers would find the way easier than their fathers have done. A regulation should be made and enforced to punish any one obtaining a loan then neglecting his property.

Later, after the Crow Indians have proved that there is a need for more land, the income from the tribal property could be used to purchase alienated lands. Most of these lands are the irrigated lands and are fairly well-improved, which would necessitate a large working capital. But it is felt that if the Indians really proved that they could use more land economically that the Federal Government would assist them by granting them a loan at a reasonable rate of interest.

Civilian Conservation Corps--Indian Department

The Civilian Conservation Corps projects should be continued. The program of work as outlined for the next five years would be ideal, if only the young unmarried men were employed in the camps. A rule should be enforced that as soon as a man married he must quit work on this project, because it has been proved that the men will not work on the project and live on the allotment.

As outlined the conservation program is to continue to build livestock water reservoirs, develop springs, drill wells, and install windmills, build roads and otherwise improve the reservation as fast as funds are allotted by the Federal Government to carry on such work. A soil conservation project has been presented to the Washington Office, to place a demonstration farm on the Reservation to show the most improved methods of contouring, stripping, and terracing. If this project is approved it would serve as a demonstration to both the Indian farmers and to the white lessees.

Leasing

There is an Indian Office regulation against the allottee leasing all of his land; some must be reserved for his self-support. This regulation should be enforced on the Crow Reservation and before land is leased careful investigation should be made to determine if the allottee should use the land in his own operations. The leases should be so worded that whenever the land is needed for Indian operation that the lessee

must give up possession at the end of the year after having been given notice by the Indian Office. In this way the Indian operator could develop his interests as rapidly as he desired without interference from white lessees. It is thought that if the Indian allottee knew that he could not lease his home he would live in it and try to make a living. At present he may lease his home and eke out an existence by living in a tent or makeshift shack. Whenever land on the Reservation is leased, the lessee should be made to comply with all of the rules of the Soil Conservation Administration and be compelled to otherwise improve the allotment and keep the improvements in good repair. This refers to both range and farm land.

Education

Future School Curriculum.--As was stated in the previous chapter, the educational plant and transportation system is sufficient to meet the present need, but the curriculum in all the school systems should include vocational education and home economics. As stated the present curriculum is not educating the farm boys and girls to go back to the farm. They are all led away from farm life toward other pursuits. Early in the grades the rural children should be given health education, home economics, agriculture, arts and crafts, with special attention to leisure time pursuits, in fact everything that is necessary to maintain a good life on the farm. Of course all of these are taught in the universities and colleges after the student has completed high school, but very few of the

Indian children attend college and even if they do they may not be given correct guidance. At present there are two years of home economics and manual training taught in the high school of Hardin, but no forge or farm shop work of any kind is given even here. The other high schools of the Reservation have no such work. If this vocational work were given in the lower grades and in every school on the Reservation, it is thought that much good could be accomplished in helping boys and girls in their life work, and also in stimulating the pupil's interest in his other school work.

Youth Organizations.--One of the best methods of furthering education is to stress 4-H Club work (see figures 30 and 31). It has been proved that the Indian boys and girls will respond to such leadership if competent local leaders can be found. It is felt that if a Government employee were to give his whole time to this project that almost every youth on the Reservation would be a member and complete his project. Every standard club project carried by the State of Montana 4-H Club organization would be applicable to the Reservation. Some of the more suitable projects are: garden, beef, range, poultry, swine, and grain clubs. The girls are extremely interested in various home economic projects, such as cooking, canning, sewing, and various handicrafts projects.

Many young people who could not be reached by the 4-H Club or who were interested in Boy and Girl Scout work could be reached by these organizations. If the meetings are made interesting, it has been proved that the Indian children will join and do excellent work in these projects.



Figure 30.--A group of Indian 4-H Club members attending the Club Camp.



Figure 31.--Two 4-H Club members and calves.

Adult Education.--In order to facilitate adult education and to further better agricultural and home conditions among the adults, the Extension personnel should organize farm chapters and auxiliaries in the different districts. Very good work could be done in these projects if regular meetings were held in which a specific outline of work were followed. Semi-monthly meetings should be held in each district. The services of a Home Extension Agent should be obtained to assist the women with their work. A field nurse should be employed by the Indian Service to assist in the health and hygiene education. Agricultural fairs and winter short courses would be of considerable value in arousing a feeling of rivalry and competition among the different districts and families to improve their products.

Religious Organizations

It is felt that the religious organizations on the Reservation are fairly well equipped and that there are sufficient facilities to meet the need. The real problem is to arouse the interest of the people in order that they will attend the services. It is felt that if the social side were a little more developed it would tend to interest the young people in the religious activities, and that there would be a larger attendance.

Summary

The great problem of consolidation of the widely separated holdings of heirship lands may be solved: (1) by partition of holdings by a land clerk in the Indian Office; (2) by the purchase of the heirship land by

the tribe for tribal use; (3) by the purchase of shares by individual heirs; (4) specific bequests when writing wills.

A federal loan of \$500,000 might be secured to establish and provide for the maintenance of herds of cattle, and to rehabilitate individual Indian families on their allotments. Provision should be made to enforce the repayment of the loans.

The school curriculum should be changed to meet the needs of farm life. Youth organizations should be increased to stimulate interest. Adult education programs may be added to provide for the needs of those past school age.

Religious organizations might stimulate greater interest by providing more social activities.

CHAPTER VI. CONCLUSIONS AND RECOMMENDATIONS

This study of the Crow Indian Reservation shows conclusively that the natural and land resources of this area are ample to support a much larger population than the Crow Tribe at present, and in a much more satisfactory manner. It shows that with the proper utilization of these resources, every Crow Indian family can be self-supporting if they will move back to the allotments and all cooperate with one another for the common good.

As was pointed out in this study, the many small individual holdings in the different parts of the Reservation should be consolidated into one block so that all the holdings can be utilized by the owner. This

may be done by land exchange or by purchase by one heir of all the heirship holdings. Those lands too badly involved should be purchased by the tribe and leased by the tribe to individuals or to Indian corporations. The rentals from these lands could be used to purchase alienated lands. No landowner should be allowed to lease any land that could possibly be used by him in earning a livelihood.

If a government loan is secured to purchase cattle, the program must be carefully planned years in advance and no digression from the program allowed. For the first few years or until the business is on a sound economic basis and a substantial reserve built up to carry it over a depression, per capita payments should not be attempted. The committee in charge of these lands must be determined men of character that are not easily influenced by adverse criticism.

Individual loans should be given only to capable persons who are willing to operate a business. These loans should be of such amounts that the business undertaken will be an economical unit and they must have strict Office supervision in carrying out the program as outlined in the farming plan. Some penalty must be worked out and strictly followed for those securing a loan, then not making proper effort to carry out the program. Because, just as long as the Government comes to the aid of the failure, the best efforts will not be put forth.

With the organization of cooperative selling and buying agencies much needless expense can be eliminated. Then with the installation of vocational educational training which will reach every Indian boy

and girl in the public school, another important step will have been made. This would enable every child to actually carry on a project while learning about its theory in school. Thus, the child would be trained during his early years to be self-supporting.

With the Indians all living on their own allotments, the hygienic problem would be not so serious. The present infant mortality would be reduced. Many social and economic problems would be eliminated when the camps and "shacks" are all moved from the edge of the small Reservation towns. In short the Crow Indians would soon become respected citizens of the community if they utilized their own lands and became self-supporting.

ACKNOWLEDGMENTS

Grateful acknowledgment is made to Dr. R. R. Renne, Dr. P. L. Slagsvold and Professor A. H. Post of the Montana State College, and to Director A. C. Cooley of the United States Indian Service, for their thoughtful instructions, suggestions, and criticism throughout the entire study; to Mrs. Marian B. Ransier and Mr. James J. Sloan for the excellent pictures contributed by them; to Miss Delight Dennett for editing and typing of the manuscript; and to Mr. J. G. Oravetz of the WPA drafting department for his work in photographing of the charts and figures.

BIBLIOGRAPHY

- Catlin, George, "North American Indians", Leary, Stuart and Company, Philadelphia, 1913.
- Coman, Katharine, "Economic Beginnings of the Far West", The Macmillan Company, New York, 1912.
- Commissioner of Indian Affairs, "Reports of the Commissioner of Indian Affairs to the Secretary of the Interior", United States Government Printing Office, Washington, D. C., 1866 to 1938.
- Crow Indian Office Records, Typewritten reports from the Crow Indian Office to the Commissioner of Indian Affairs in Washington, 1932 to 1938.
- Geology of Big Horn County and the Crow Indian Reservation, Montana, Geological Survey Bulletin 856, United States Government Printing Office, Washington, D. C.
- Institute for Government Research, "The Problem of Indian Administration", The John Hopkins Press, Baltimore, Maryland, 1928.
- Kappler, Charles J., "Indian Affairs Laws and Treaties", Volumes I and II, United States Government Printing Office, Washington, D. C., 1913.
- Kappler, Charles J., "Indian Affairs Laws and Treaties", Volume IV, United States Government Printing Office, Washington, D. C., 1929.
- Leupp, Francis Ellington, "The Indian and His Problem", Cl. Scribner's Sons, New York, 1910.
- Leforge, Thomas H., "Memoirs of a White Crow Indian", The Century Company, New York, 1928.
- Lowie, Robert Harry, "The Crow Indians", Farrar and Rinehart, Inc., New York, 1935.
- Miles, Nelson Appleton, "Personal Recollections and Observations", The Werener Company, Chicago and New York, 1897.
- Palladino, Lawrence B., "Indian and White in the Northwest", Wickersham Publishing Company, Lancaster, Pennsylvania, 1922.
- Sanders, Helen Fitzgerald, "History of Montana", Volume I, The Lewis Publishing Company, Chicago, and New York, 1913.

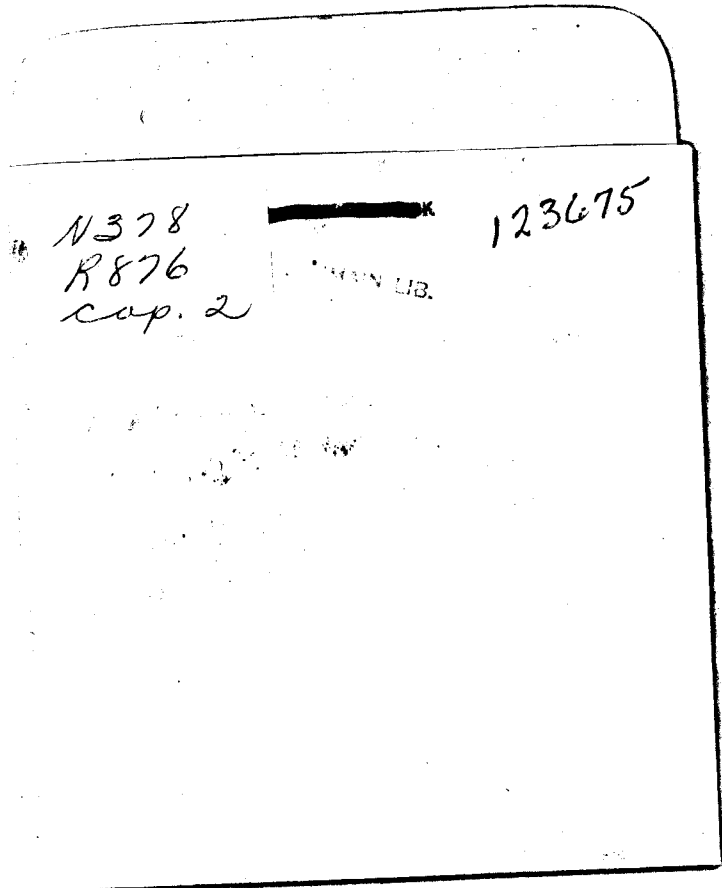
United States Office of Indian Affairs, "Report of the Commissioner of Indian Affairs to the Secretary of the Interior", United States Government Printing Office, Washington, D. C.

United States Weather Bureau, "Summary of Southeastern Montana", U.S.D.A., United States Government Printing Office, Washington, D. C., 1930.

MONTANA STATE UNIVERSITY LIBRARIES



3 1762 10015399 6



N378
R876
cop. 2



LIB.

123675