

REPORT
COVERING THE
GRAZING SITUATION
ON THE
HOPI INDIAN RESERVATION

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WR 1327

HOPI INDIAN RESERVATION

The Hopi Reservation is a part of the large Navajo Jurisdiction. It is bounded on the north and west by the Western Navajo, on the east by the southern Navajo and on the south by the Leupp jurisdiction and state, private and railroad lands. The total area is approximately 2 1/4 million acres.

This reservation roughly divides itself into two range types, the low land or grass area and the grass supporting conifer area on Black Mesa. The grass area is approximately one half of the total surface area, the balance is largely scattered juniper and pinion which supports good grass but as the elevation gets higher to the north and east the pinion gets heavier and consequently the grass does not flourish. In the N. E. portion of the Reservation are several small areas of yellow pine. This pine is very short and scattered and does not occur in a sufficiently large body to be merchantable. The pinion and juniper find good use in fencing material, fuel and construction material for the hogans. Along the south portion of the reservation are numerous mesas which are largely covered with pinion and juniper. Contrary to common belief the Indians graze their stock in the low land during the summer and move into the mesas and higher elevations in the winter. This is due to the fact that there is no water in the higher altitudes until the snow appears. Likewise the Indian finds shelter and fuel in the higher elevation which is rather scarce on the prairie.

The whole region drains in a south westerly direction. The principal drainage courses are the following washes: Pashbito Wash, Jadito Wash, Polacca Wash, Oraibi Wash, Dennebito Wash and the Moencopi Wash. All these washes head in the N. E. portion of the Reservation and form large valleys which cut through the Black Mesa.

There are fairly good roads entering the Reservation from Holbrook, Winslow, and Flagstaff. These have as their destination Keams Canyon, Polacca or Oraibi.

There is a road leading from Keams Canyon to Gonado and Gallup to the east and Tuba City to the west.

Numerous improved trails give access to the more isolated trading post scattered over the Reservation. The statement made about the roads on the Western Navajo and the Whole Navajo Reservation also holds good on the Hopi. The need for good roads is apparent everywhere and to anybody traversing this vast region.

The grass area in the southern and south western portion of this reservation looks better than any area of like size anywhere on the Navajo Reservation. The grass looks good and there seems to be sufficient feed to carry the stock through the winter. The northern and northwestern portion does not look quite so good and in particular the valleys formed by the various washes named above. Naturally this part of the Reservation is considerably rougher and more unproductive than the low lands to the north. Nevertheless the harmful detrimental conditions created by overgrazing are not only damaging the northern area but also the southern area of the Hopi Reservation.

Erosion is taking heavy toll of the grazing areas in the Black Mesa region. Due to the topography of the country comparatively small areas are good potential grass ranges. These are found in the valleys through which the washes run. Since the best grass usually is found in these valleys we find there overgrazed conditions in the worst forms. As a result of this overgrazing, destructive erosion will become more apparent each year cutting and washing away much of the valleys and destroying the same for use as range. Likewise an examination of many of these valleys reveal the fact that weeds are largely supplanting the useful grasses, thereby perceptibly cutting down the carrying capacity of the available range areas.

It is estimated that between 5% and 10% of the total acreage is in waste land and inaccessible areas. These areas are found along the slopes of the Mesas, in the washes and densely wooded slopes.

There are a total of 123,721 sheep and goats on the Hopi. 26.5% of this amount are goats, or a total of 32,795 goats, leaving a balance of 90,926 sheep. The general appearance of the bands of sheep and goats resembles those of the other reservations within the Navajo region and many of the flocks show results of introducing good bucks. The sea infestation, due to a very active interest of the Superintendent in this matter, is far less prevalent on the

Hopi than on any other administrative division of the Navajo Reservation. The infestation by bands was only 3% and by count 7% as compared to 16 and 21% on some of the other jurisdictions. There are 5 very well constructed Vats serving the Indians for sheep dipping and with the addition of one or possibly two vats this Reservation will be fairly well equipped especially if only one dipping will be required after the scab is controlled. The Jadito Vat was overworked which directly reflects on the condition of the range in the vicinity. 20-25,000 sheep to any vat for one dipping should be all that need to be required. To double that amount will work too great a hardship on the stock and the range as well. The range in the vicinity does not suffer from overgrazing as much as it does from the trampling of too many hoofs.

The estimated number of cattle owned by both Navajo and Hopi is 6,500 head. Of this amount a little more than 50% is owned by the Hopi.

The total number of horses on the Hopi is not definitely known but an estimate places their number at approximately 10,000 head. Most of these are of very little value.

The solution of the problems as to erosion and overgrazing on the Hopi is very similar to that applicable to the Western Navajo and the Navajo Reservation in general and will not be mentioned here as it would simply be a repetition of what has been said about the Western Navajo.

In one respect, the Hopi is different from the Western Navajo in that it has a larger Hopi Population than the same. The Hopi are practically concentrated in the central part of the Hopi Reservation in villages on top of the mesa. In all, the Hopi occupy not more than approximately 600,000 Acres of the whole 2 1/2 million. The balance of the territory is all utilized by Navajo. The total Hopi population on the Hopi Reservation is 2,236 Hopi and the population of the Navajo is 4,030 Navajo. This is practically 1/8 of the total Navajo population. The Hopi are not a nomadic people and naturally do not spread out over the country as much as the Navajo. The sheep and goats as well as their horses and cattle appear very much to be like the balance of the stock on the Navajo.

However, due to the general traits and characteristics of the Hopi it is apt to be a more difficult problem to teach them new grazing methods than the Navajo.

There are two men available for stockwork. One is located at Hotevilla and one at Keams Canyon. Due to the work at the dipping vat and the large amount of police duty which falls to the lot of the stockmen less than one mans time can be charged against stock work. The great need of additional stock men and the deplorable fact that due to lack of adequate personnel, the superintendent has to make police men out of their stockmen, has been taken up in the general report on the Navajo and will not be repeated here.

Mr. Miller, Superintendent on the Hopi Indian Reservation, pointed out very clearly to the writer that with the large Navajo population on his jurisdiction, not one stockman was available to work among them.

During a recent local Navajo Council meeting, the head men voted to ask the Indian Office for three more stockmen. The great need for competent men to do good work among the Navajo and to help in the proper utilization and management of the range is apparent everywhere.

The matter of water development holds just as important a position on the Hopi as it does on the Western Navajo.

The needs for the coming year have been estimated at \$20,000 for the development of new tanks and the repair and maintenance of old plants.

In addition to the \$20,000 needed which is to be expended for the use of the Navajo an additional \$7,000 is required for maintenance and repair of water plants on territory directly occupied by Hopi Indians.

The water developed to date consists of the following:

Drilled Artesian Wells	4
Drilled Wells with Windmills	33
Dug Wells	18
Troughs	28
Catch basins	1
Storage Reservoirs	10
Springs developed	88

All water development on the Hopi should be according to recommendations made in the general report covering the Navajo jurisdiction.

Due to the fact that a heavy snowstorm brought all field work to an end a few days after starting the work on the Hopi, it was not possible to obtain sufficient data on the number of forage acres and actual carrying capacity of the Reservation as a whole.

For the same reason as mentioned above, no complete data is available as far as rodent control is concerned but inasmuch as the Hopi is surrounded by infested areas there are no doubt areas of more or less serious rodent infestation all through the reservation. Several such areas were noted along the washes cutting through Black Mesa.

It is therefore believed that the general rodent infestation justifies the application of the recommendations made for the Navajo Country relative to rodent eradication.