



At left, typical Indian-owned sheep grazing along the roadside on the Navajo Reservation.

# Sheep Important Asset In Navajo Economy

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Due to the large differences in quality of sheep and wool and in management practices of Indians and Whites, it is desirable to discuss the sheep in the state according to Indian and White ownership.

White-owned sheep of the state are generally superior in quality to the sheep owned by the Indians. Most of the sheep raised by Whites are of Suffolk-Rambouillet breeding and are considered good for both meat and wool.

At present most of the "Indian" sheep are owned by the Navajos. Although the Indians have had improvement programs for some time which stress improved breeding, there still are large variations in both the quality and breeding of Indian sheep. Wool varies from very fine to very

coarse, and the meat quality varies from inferior to choice. The best sheep on the reservation are found in the east central part of the reservation, in the Ganada and Lukachukai area, while the poorer quality animals are found in the more remote areas of the northern part of the reservation.

## Low Point in 1951-52

Apparently 1951 marked the end of a long period of decline in the Arizona sheep industry, extending from 1917. Sheep numbers reached a low in 1951 but stock sheep reached a low in 1952. The general trend in total numbers since 1951 has been upward, increasing from a low of 406,000 head to 549,000 head January 1, 1964 (Figure 1). Of this 143,000 head increase, 102,000 head, or 79 percent, were Indian owned. The upward trend in numbers of Indian-owned sheep has been rather constant, while changes in numbers of White-owned sheep have been more erratic from year to year. On January 1, 1964 White-owned sheep in the state numbered 217,000 head, the same as in 1955.

The composition of the sheep on hand as of Jan. 1 differs considerably between White-owned and Indian-owned sheep. (Figure 1.) The inventory of White-owned sheep includes both sheep and lambs on feed and stock sheep. Indian sheep have continued to increase since 1951. The Indians feed no sheep, therefore all

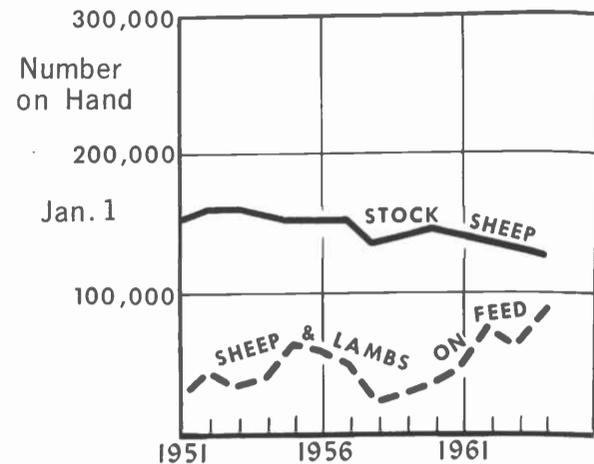


FIGURE 2 — White-owned sheep numbers since 1950. Note increase of sheep on feed.

of their sheep are stock sheep, indicating the gradual increase in the sheep raising industry among the Indians.

## White Stock Sheep Down

Since a varying proportion of the Jan. 1 inventory of White-owned sheep is made up of sheep and lambs on feed, the numbers on hand Jan. 1 are separated according to stock sheep and those on feed. (Figure 2.) Note that the White-owned stock sheep have declined almost constantly since 1952. At that time, Whites owned 160,000 stock sheep. On January 1, 1964 the number had decreased to 128,000.

In contrast to this downward trend in stock sheep numbers of White owners, the number of sheep and lambs on feed has turned generally upward since 1951. At that time the number on feed was 24,000. In 1955 there were 65,000 on feed. Numbers then declined until 1958, when 26,000 were on feed in Arizona. Since then numbers have tended upward, and on Jan. 1, 1964, some 89,000 were on feed in Arizona.

The downward trend in stock sheep owned by the Whites has been about as marked and steady as the upward trend in stock sheep owned by the Indians. The greater part of the fluctuation in sheep numbers has been due to the erratic feeding operations in the state. The growth of the sheep feeding enterprise has been uneven. For example, in 1951 sheep and lambs on feed comprised about 14 percent of the total of White-owned sheep. This increased to 30 percent in 1955

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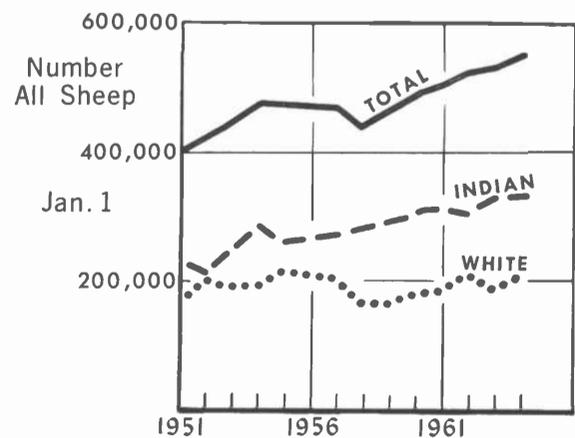


FIGURE 1 — Trend in sheep numbers, Indian and White, since 1950.

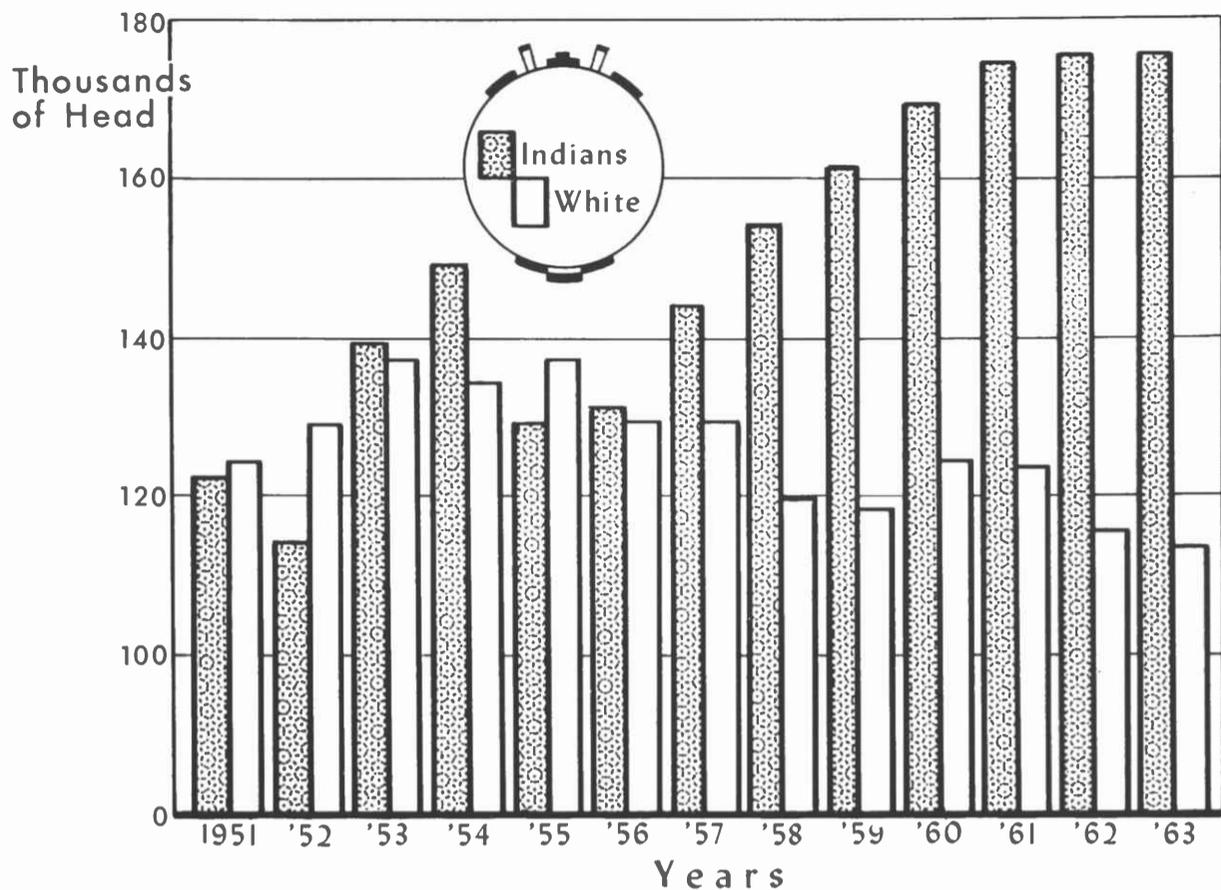


FIGURE 3 — Sheep ownership, Indian and White, since 1950.

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then dropped to 16 percent in 1958. Then on Jan. 1, 1964, sheep and lambs on feed comprised 41 percent of the total White-owned sheep.

#### Lamb Production and Marketing

Indian lambs are dropped throughout the year, because most of the Indian producers run rams with their ewes all the time. As a result, only around 10 percent of the Indian lamb crop can be designated as early, (dropped between Oct. 1 and March 1). The principal lambing season for Indian-owned sheep is during April, May and June, when perhaps 80 percent of the lambs are dropped.

The Indians have small flocks and give individual attention to lambs. The small size of some of the Indian flocks is indicated by the fact that each year the ASCS does not pay several hundred applications by Indians for the government wool incentive payment, since the payment due would be less than the \$3 minimum. The Navajos, for example, are limited to 350 sheep per individual. There are about 7,500 Navajos who own sheep and the average flock numbers about 70 head.

Because of the small number, per owner, the Indians are able to give more attention to their animals. At lambing time some orphan lambs are fed condensed milk, even though the cost may exceed the value of the lamb at sale time. The Indians sometimes

mark the ewe and her lamb with identical strips of cloth for identification. In spite of this individual attention, the percentage of lambs saved by the Indians is much lower than for the Whites. This is due to less favorable range and frequently cold weather at lambing time. Since 1950 the percent of lambs saved has average 75 percent for the Indians, and 97 percent for the Whites.

#### Whites' Flocks Larger

White owners tend to run many more sheep than do the Indians. There are only about 400 White sheep owners in the state, and most of these sheep are owned by about 10 to 15 of the largest producers owning over 1,000 head each. As a result, White-owned sheep receive less individual attention, but have better grazing conditions, being wintered in the irrigated valleys and summered on high mountain ranges.

Marketing of Indian lambs begins in volume in the latter part of September, and is completed by the end of October. All sales are through traders, and about 80 percent are sold to "on-reservation" traders. The Indian producer may sell for a cash price, or a trade price, with the latter being the higher one. That is, in order to secure more trade, the on reservation trader may offer a break-even price if the seller will put the sheep money on the books, to be used in trade. Even when sales occur on this basis, prices are generally below those received by White producers. Estimates range from 1½ to 5¢ per



#### JANUARY

- 4-10—Arizona National Livestock Show, State Fairgrounds, Phoenix
- 14-15—Irrigation Operators Workshop, sponsored by U of A, PERA Club, Salt River Project, Tempe
- 21-22—14th Annual Dairy Industry Conference, Tucson
- 26-28—Artificial Insemination Workshop, U of A, Tucson

#### FEBRUARY

- 9-10—Fertilizer Conference, U of A Campus, Tucson

#### MARCH

- 4 —Bull Sale of the Arizona Beef Cattle Improvement Station, Tucson
- 10-11—Artificial Insemination Workshop — Cotton Research Center, Tempe
- 20—FFA Field Day — U of A Campus
- 27—University 4-H Invitational Day — U of A Campus

pound lower. The reasons given are: 1) small lots, 2) non-uniformity, 3) occurrence of black lambs, and 4) remoteness to markets. Most of these feeder lambs are fed out in southern Colorado, Nebraska and Kansas, the remainder going to Arizona, California and Texas.

#### Wintered on Alfalfa Pastures

Practices among the Whites are much different. Flocks are moved from mountain ranges to winter alfalfa pastures in the lower irrigated valleys before lambing begins, usually in early October. Most of the lambs are dropped in November. The sheep remain on pasture until spring when the milk fat lambs are weaned and sent to markets, usually on the West Coast and Denver. Following sale of the lambs, the breeding flocks are grazed until fall. The present trends in lamb production by Indians, and Whites are shown in Figure 3. The steady increase in Indian lamb numbers is due primarily to an increase in sheep numbers. The decrease in White-owned sheep results from a decrease in stock sheep and lamb production. The net effect for the last two years has been negative.