

# Apache Project Aids All Arizona Cattlemen

## Clay Napier

Cooperative research between the Apache Indians and animal scientists, now in its sixth year, shows more and more promise of improving the beef herds on Arizona ranges.

The cooperators are University of Arizona animal scientists, the San Carlos Apaches, the Beef Cattle Research Branch of the U.S. Department of Agriculture and the Bureau of Indian Affairs, Department of Interior.

The improvements are expected to come through new knowledge gleaned from the registered herd on the Apaches' San Carlos Reservation, said Dr. O. F. Pahnish, U of A animal scientist in charge of the program.

### Calving Percentage Up

Dr. Pahnish noted that one of the results of the research has been the increasing of the herd's calving percentage from 68 per cent in 1957 to 87 per cent this year.

But the full story is yet to come in the form of analysis of data gathered, said the scientist.

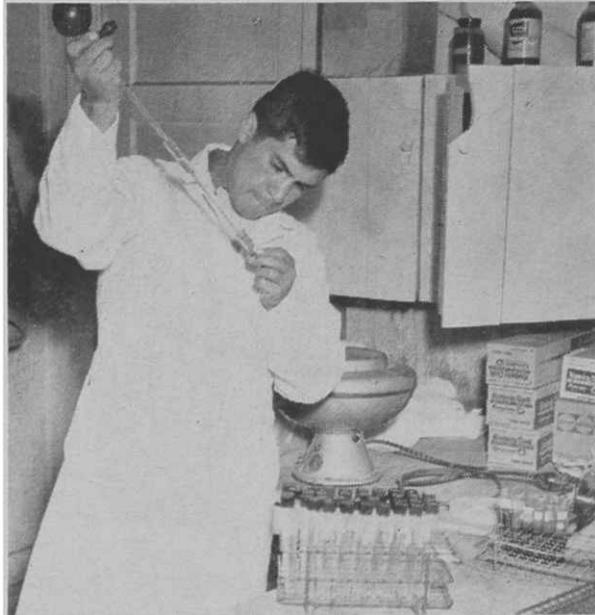
"We are in the sixth year of this project, and we are now reaching the point where we soon will have a significant block of data," he added.

As U of A animal scientists see it, this is a scientific endeavor in which everybody wins.

The Apaches, who are furnishing the land, facilities and cattle—valued conservatively at half a million dollars—reap the increased profits from direct herd improvement.

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Mr. Napier is an Extension Information Specialist.



**PROCESSING BLOOD SAMPLES** at Arsenic Tubs is Cesar Vargis, a Peruvian graduate student in Animal Science at the University of Arizona.

### All Ranchers Will Benefit

The university, which is furnishing the animal scientists, is getting the scientific data it wants. And all of the new knowledge gleaned from the partnership will be made available to all Arizona ranchers.

The herd consists of 1,100 animals, including some 550 cows.

Each animal is tattooed at birth for identification in keeping records. A crew of U of A animal scientists go to the reservation to check on the herd and gather data twice a year, in early November and late February. The Apaches and university people work together in gathering the data.

Goals of the project are to increase calf production and to improve both growth and grade of feeder cattle. These improvements mean dollars and cents to Arizona ranchers.

You get some idea of what this all means when you consider that the increase in calving percentage from 68 per cent in 1957 to 74 per cent in 1958 to 82 per cent in 1959 to 87 per cent in 1963 now means at least 15 more calves for each 100 cows bred.

### Sires Are Pre-Tested

To accomplish this, the size of pastures were reduced and more fences were built. In spring every bull is given a semen test before being turned into the herd. About 10 per cent of the bulls fail to measure up and are withdrawn from the herd.

Research findings are pointing the way to increased weights and grades through breeding and selection of feeder cattle, although most of the calves now produced in the research herd are uniformly in the choice feeder grade.

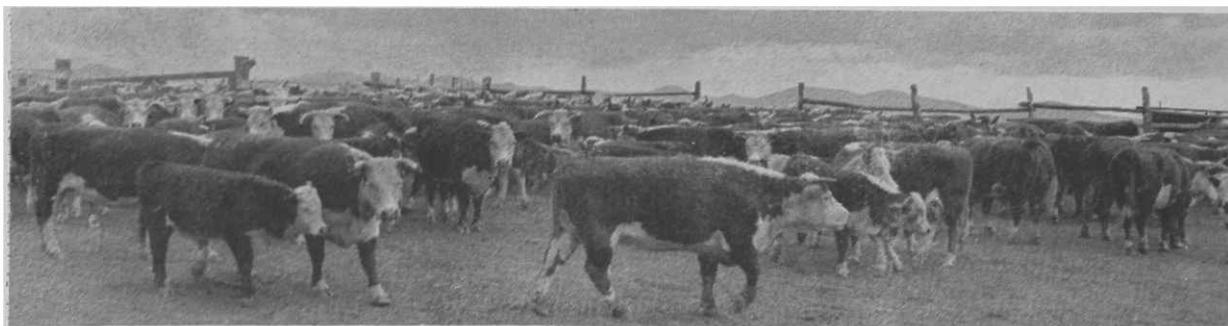
One thing that has become apparent in the experiment is that it is not wise to cull too heavily at weaning time. It appears that inherited characteristics are not then as apparent as at yearling age.

Painstaking records are kept on each animal's birth date, birth weight, sex of calf and record of calf losses.

### Judged Every Six Months

At weaning time and again at about 12, 18 and 24 months of age, the scientists get the animals' weight, feeder grades, conformation scores, blood samples for analysis of some 12 to 14 blood constituents and fecal samples for internal parasite counts.

Cows in the San Carlos purebred Hereford herd are culled once a year on the basis of weaning weight and grade of calf, soundness of cow and frequency of calving.



**PART OF THE** registered Hereford herd at San Carlos being used in this research program. Photo taken "back in the hills" at Arsenic Tubs, where corrals and out-buildings constitute the ranch headquarters, and where George Stevens, the very capable Apache manager of the herd, lives. The research program is the largest "large animal" research effort in the world, utilizing over 1100 cattle.

### MONKEY BUSINESS

The Animal Pathology Department is the caretaker of 74 Rhesus monkeys recently received from the U. S. Army to help solve some of the unknowns about valley fever. The college veterinarians have contended with this disease problem for the past three years using dcgs. The monkeys will be injected with the valley fever fungus and exposed to natural infection.