

# THE RANGE

By E. B. STANLEY, Animal Husbandman

## Comparative Study of the Range Sheep and Goat Industry—What the Extension Force Is Doing—Personnel of the Division

**A** DETAILED study of the factors affecting the economics of range sheep and goat production in Arizona was recently inaugurated by the Animal Husbandry Division in cooperation with the New Mexico Agriculture College and the Bureaus of Animal Industry and Agriculture Economics of the United States Department of Agriculture. The project will include the range sheep and goat industries of New Mexico so as to obtain a wider scope of territory where conditions are comparable and in a general way representative of the entire Southwest. The status of the two industries as they exist in each state respectively will be the basis of study and the results obtained will likewise be given separate interpretation. It is recognized, however, that state division does not materially alter the nature of sheep and goat production within the two states, hence the results of the entire study will prove mutually beneficial besides affording a basic comparison with other types of production in the country.

The cooperative livestock survey conducted in Arizona last spring by the Animal Husbandry Division of the Agricultural Experiment Station and the United States Department of Agriculture; Bureau of Animal Industry and Bureau of Agricultural Economics, had as its principal objective a prospectus of the range livestock situation that would make possible the formulation of a definite and systematic study of the range livestock industry. While the results of this survey show that the industry is on a fairly stable basis, problems of no mean magnitude are hampering its progress. Climatic conditions, directly or indirectly, are recognized as the limiting factors in the range livestock business in Arizona and account in a large measure for its recent depression. Though these factors are not within control they are forcing stockmen to utilize more efficiently their own powers in the matter of handling their range problems. And the study now under way purposes to make available to the sheep and goat men of Arizona accurate information pertaining to the factors



Sheep on summer range in Coconino county.

affecting their business that will make for more economical production.

The range livestock business regardless of the class of stock, is intensely involved. It is confronted with innumerable problems of such wide divergence that the producer is unable to meet them with the success his business demands. The different systems of land-tenure complicate the management of range stock. More than 65 per cent of the land in Arizona is federally controlled and consists largely of National Forests, Indian Reservations, and public domain, each with a different policy of grazing administration. The acquirement of state, railroad, and patented lands further complicate the grazing problem.

Pronounced variations in climate and forage types and limited range are factors of vital concern to sheepmen who must move their flocks to conform with the varying conditions in the course of a year. Upwards of 350,000 sheep must move from the high plateaus of northern and eastern Arizona each year to the desert ranges and irrigated pastures for feed during the winter months. The mild winters of Southern Arizona make possible the production of early lambs requiring a different system of management as compared with the production of late spring lambs on the northern ranges of the state.

Recognizing the plight of the individual producer to cope with the many factors affecting his business it was the opinion of the Animal Husbandry Division of the College of Agriculture and the Arizona Wool and Mohair Growers Association that the welfare of the sheep and goat men can be materially improved by securing from and disseminating among the sheep and goat men of the state such information as will be of value in reducing production costs in conformity with efficient management, to increase the quality of their product, and to more successfully meet the market demands for their products. More specifically the objects of the study are to secure accurate records of cost showing distribution of investment, current expenses, income, indebtedness, and credit facilities; to study the methods of flock management for producing early and late lambs, efforts toward increasing the lamb and kid crops and improving the quality of breeding stock; to study the economic relations of the different system of land-tenure to range sheep and goat production; to secure information of the extent and causes of death losses, the use of supplementary feeds and marketing methods.

Before complete analyses can be made of the range sheep and goat in-

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dustry, special consideration must be given to the forage. In conjunction with the project, particular attention will be devoted to this problem by W. G. McGinnies, range specialist of the Animal Husbandry Division. He will study the principal forage types of Arizona with particular attention to the most important forage plants, also noxious and poisonous weeds, the relative efficiency of different systems, intensities and periods of use in obtaining maximum returns from the range forage.

Records of the shrinkage and grades of wool produced by the cooperating sheepmen in Arizona will be made in the Animal Husbandry wool laboratory by W. F. Dickson, assistant Animal Husbandman. Mr. Dickson is planning an intensive study of Arizona wools and mohair and is now prepared to make wool shrinkage tests for sheepmen.

A detailed record of the holdings, operation methods, and costs, and related observations of economic value will be made of 16 sheep and 4 goat outfits in Arizona by a routeman making personal visits to each ranch at least three times a year. This work will be done by K. K. Henness, a graduate in Animal Husbandry from the University and for the past two years County Agricultural Agent of Coconino County. Mr. Henness will also take the records of the sheep and goat outfits in New Mexico selected for the study.

The project will be of the three years duration, terminating January 1st, 1930. The results will be interpreted and published in bulletin form on the findings of the study in Arizona by the Animal Husbandry Division of Arizona Agricultural Experiment Station.

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**U. S. CHAMPION 30 AND 7-DAY MILK PRODUCER A HOLSTEIN**

Mrs. O'Leary's cow kicked over a lantern and became famous. Now comes another Illinois cow which has established her claim to fame in an entirely different manner—a manner in which her owners and the general public share. By producing in thirty days two and one-fifth times her weight in milk, Side Hill Ormsby Segis, a purebred Holstein-Friesian cow owned by John R. Logan and Son of Seward, Illinois, according to Advanced Registry records of the Holstein-Friesian Association of America, becomes the U. S. champion milk

producer for thirty days and other sectional championships which place her on a par with the O'Leary cow.

No cow in the world of her age has a strictly official 30-day milk record higher than Side Hill Ormsby Segis, she having produced in thirty days, at the age of five years, 3,910.6 pounds of milk and 159.3 pounds of butter. In addition to her U. S. thirty-day Advanced Registry record she also holds the United States championship for seven-day milk production over all ages and breeds. In seven days on strictly official test supervised by the University of Illinois she produced 941.6 pounds of milk and 38.56 pounds of butter.

Ross Logan milked and fed "Side Hill" during the entire period of the test. The record is all the more remarkable in view of the fact that Ross has had very little experience in testing cows. However, he knows cows and is a very careful and painstaking feeder. "Side Hill" is now on yearly test, being milked three times per day. In order to qualify in the "Subdivision B" class it was necessary to discontinue milking four times per day after 45 days. On the last day of the strictly official test period she made her greatest butter record of 5.93 pounds. "Side Hill" has now been on test for over two months and has never been "off-feed." She has averaged 121.1 pounds of milk per day for the first 60 days. Her highest day's milk production was 137.4 pounds. At present on three milkings per day she is averaging 110 pounds of milk. That's a lot of milk and Ross was asked the question if he did not fear that her udder might not be spoiled. Ross answered: "'Side Hill' has an exceptionally fine quality udder of large size and it seems to hurt her in no way to produce such a large flow. As a matter of fact, I have frequently milked over 80 pounds per day on twice-a-day milking in a previous lactation. One time I milked over 50 pounds from her at one milking."

A good dairy cow must have a good appetite and "Side Hill" is no exception. Her appetite is ravenous and she bellows for her feed at each milking time. She has been fed as much as 36 pounds of grain per day and still wanted more. She never seems to get quite all she wants which no doubt accounts in part for the fact that she has never gone "off-feed." She is exceedingly gentle and craves attention. So attached has she

become to Ross that she follows him around like a devoted dog.

"Side Hill" is known as Logan's "show cow." Last season her owners had "Side Hill" in their show herd, but had the misfortune of having her injured on the way to the Missouri State Fair. In 1925, as a four year old, "Side Hill" won the blue ribbon at the Illinois State Fair, and the Memphis Tri-State Fair. She was a consistent winner on the circuit that year being well up in the money wherever shown. The sire of "Side Hill" is King Segis Johana Ormsby 163801 who was first prize two year old at the National Dairy Show in 1916.

While John R. Logan and Son are small breeders, one should not get the impression that they have a "one-cow dairy." The herd contains several cows of exceptionally good type and production. For instance, "Side Hill" has a daughter in the herd that has just turned two years old, that is producing 50 pounds of milk per day on twice-a-day milking. Another cow in the herd finished second in the 500 pound butterfat club in the Illinois Cow Testing association. She produced 701.9 pounds butterfat and 22,579 pounds milk. According to the December report of the Cow Testing association in Illinois, the John R. Logan and Son herd of 19 cows, in milk was the highest herd in Illinois, averaging 51.8 pounds butterfat and 1,468 pounds milk.

The results being obtained by the Logans again refutes the oft-repeated expression that "a little breeder has no chance to make records on cows comparable to those made in the large herds owned by wealthy men where the cows can be given every opportunity with no regard to expense."

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