An overview of breeding and kid crop management practices on U.S. goat operations as part of the NAHMS Goat 2019 Study

N. Urie[1], DVM, MPH; K. Marshall[1], DVM, MSc; A. Wiedenheft[2], DVM, MS; M. Branan[1], MS; V. Fields[1], DVM, MPH

[1]United States Department of Agriculture-Animal and Plant Health Inspection Service-National Animal Health Monitoring System, Fort Collins, CO, 80526;

[2]United States Department of Agriculture-Animal and Plant Health Inspection Service and Colorado State University, Fort Collins, CO, 80526

Introduction

Operations that use goats for meat or dairy production rely heavily on their kid crop for income. Implementing good breeding and kid crop management techniques can help increase the number of kids born and that survive to sale.

Materials and methods

The USDA's National Animal Health Monitoring System (NAHMS) is a nonregulatory program within USDA APHIS VS, that was initiated in 1983 to collect, analyze and disseminate data on animal health, management and productivity across the U.S. In 2019, NAHMS, in collaboration with the National Agricultural Statistics Service (NASS), conducted its second national cross-sectional study on the U.S. goat industry.

The NAHMS Goat 2019 study included 24 of the top goat-producing states, representing 76.6% of U.S. goat operations with 5 or more adult goats and 82.3% of U.S. goats on operations with 5 or more adult goats. Participating states were categorized into 2 regions: West (California, Colorado, Oklahoma, Oregon, Texas, and Washington) and East (Alabama, Connecticut, Florida, Georgia, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Vermont, Virginia, Wisconsin).

Producers with 5 or more goats were personally interviewed by NASS enumerators from July 1st through August 9th, 2019. Data were validated and weighted descriptive estimation was carried out using SAS-callable SUDAAN software. This abstract focuses on select topics covered in the general goat management questionnaire (GGMQ) regarding breeding management and kid crop and management.

Results

Overall, 60.0% (n = 1,840) of eligible operations completed the GGMQ. By region, 39.6% of operations were in the West and 60.4% were in the East. Primary production of the operations was divided as follows, 43.9% meat, 33.4% dairy, and 22.7% other.

In the previous 12 months, 86.3% of all operations bred any goats. Of operations that bred any goats, 60.4% had a defined breeding season, and 88.0% of these operations with a defined breeding season bred their does to kid once a year.

Most operations (85.7%) had kids born between July 1, 2018 and June 30, 2019. Of operations that had kids born, 94.3% of kids were born alive. On operations that had any kids born, 49.9% of births were attended by someone to help, if needed.

Most operations made water (87.9%) and hay or other roughage (82.9%) available to kids on the day they were born. Overall, 70.8% of operations offered kids starter grain (creep feed or other concentrates). Kids were weaned at an average age of 12 weeks.

For operations that had any kids born, 29.2% disbudded or planned to disbud any kids, and 25.3% of all kids were or were expected to be disbudded. A higher percentage of dairy operations (64.4%) disbudded or planned to disbud any kids compared with meat operations (16.5%) or other operations (33.0%). The owner typically performed this procedure on 75.0% of all operations. On average, kids were 16.3 days old when disbudded. An electric dehorner/debudder was the primary disbudding method used on operations (95.7%). Analgesics or anesthetics were used routinely on 30.4% of operations when disbudding kids.

Overall, 45.7% of operations had any buck kids that had been or were expected to be castrated. Buck kids were castrated at an average of 58.5 days of age on all operations. A higher percentage of all operations used an elastrator to a apply a rubber band (85.9%) to castrate buck kids than used a blade (9.4%).

Significance

These results benchmark current breeding and kid crop management practices on goat operations and can be used to identify areas for education, outreach, and research to help producers improve the number of kids born and the number that survive to sale.