INTRODUCTION

The U.S. Department of Agriculture’s National Animal Health Monitoring System (NAHMS), in collaboration with the National Agricultural Statistics Service (NASS), conducted its second national study of the U.S. goat industry in 2019. The NAHMS Goat 2019 Study gathered information on goat health and management practices on U.S. goat operations. This study was conducted in 24 of the Nation’s major goat-producing States. One of the goals of the Goat 2019 study was to collect information on the management practices of the kid crop on operations, including the disbudding of kid goats.

KEY TERMS

- **Dairy** refers to operations that primarily produce milk.
- **Meat** refers to operations that primarily raised goats marketed for consumption.
- **Other** refers to operations that primarily raised goats for other reasons.

Figure 1. States/Regions That Participated in NAHMS Goat 2019 Study

*Texas and Oklahoma were divided on a line corresponding to north-south Interstate 35. The western halves of the States were included in the West region, and the eastern halves were included in the East region.*
WHAT IS DISBUDDING?

Disbudding is a procedure performed on kid goats to ensure their horns will not develop. This procedure is typically performed on kids three weeks of age or younger. After three weeks of age, the developing horn tissue will have attached to the skull and is more difficult to remove. Using proper disbudding technique and disbudding during the appropriate time frame will decrease the number of goats that develop scurs and decrease the number of disbudding-associated injuries.

WHY ARE GOATS DISBUDDED?

Most goat breeds develop horns. Horns are beneficial for protection from predators and heat dissipation. However, horns can cause problems for producers when they are handling goats, and horned goats can injure other goats in shared housing. Therefore, many operations choose to disbud their kid goats.

A scur is an incompletely developed horn growth and is generally not connected to the skull. Goats may develop scurs due to incomplete removal of the horn bud.

WHAT OPERATIONS DISBUD THEIR GOATS?

On operations where any kids were born, more than one-quarter of all operations disbudded or planned to disbud any kids (29.2 percent). Overall, 25.3 percent of all kids were or were expected to be disbudded. More dairy operations disbud kids than meat operations or other goat operations.

- 64.4 percent of dairy operations, 16.5 percent of meat operations, and 33.0 percent of other goat operations disbudded or expected to disbud any kids (see Figure 2).

Figure 2. Percent of Operations and Kids that were Disbudded or Expected to be Disbudded by Primary Production of the Operation

- 16.5 percent of meat operations
- 9.1 percent of meat operations kids
- 64.4 percent of dairy operations
- 67.3 percent of dairy operations kids
- 33.0 percent of other operations
- 22.8 percent of other operations kids
- 29.2 percent of all operations
- 25.3 percent of all operations kids

*This percentage is taken out of all operations that had kids from July 1, 2018 to June 30, 2019, including those that had kids that did not have or were not expected to have horns.

**Percentage calculated from kids born alive from July 1, 2018 through June 30, 2019.
Herd size did not impact the percentage of operations that had or were expected to disbude kids, or the percentage of kids that had been or were expected to be disbudded (see Figure 3). A higher percentage of kids in the East region had been or were expected to be disbudded (34.1 percent) than kids in the West region (14.9 percent) (see Figure 3).

### WHEN ARE GOATS DISBUDDED?

Operations disbudded kids at an average age of 16.3 days.

- Disbudding kids after the age of 14 days is technically classified as dehorning, not disbudding.
- Goat kids should be disbudded, in general, between 4 to 14 days of age. Disbudding during this age range will ensure that the goat is truly being disbudded and not dehorned.

There were no regional or herd size differences regarding the age at disbudding. There were differences across primary production type of operations regarding the age at disbudding. Meat operations disbudded kids later than dairy or other goat operations.

- Meat operations disbudded kids at an average of 20.2 days, dairy operations disbudded kids at an average of 14.6 days, and other goat operations disbudded kids at an average of 13.9 days (see Figure 4).

### Figure 3. Percent of Kids that are Disbudded or Expected to be Disbudded and Operations that have Disbudded or Expect to Disbud Kids

<table>
<thead>
<tr>
<th>Regions</th>
<th>Kids</th>
<th>Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>14.9%</td>
<td>27.0%</td>
</tr>
<tr>
<td>East</td>
<td>34.1%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

### Figure 4. Average Age (days) at Disbudding

- **Meat**: 20.2 Days
- **Dairy**: 14.6 Days
- **Other**: 13.9 Days
HOW ARE GOATS DISBUDDED?

The primary method used for disbudding kids was an electric dehorner/debudder or hot iron. This method was used on 93.3 percent of meat operations, 95.8 percent of dairy operations, and 99.0 percent of other operations. Less common methods of disbudding include caustic paste, rubber bands, or shears. Caustic paste was used on 3.2 percent of meat operations, 1.2 percent of dairy operations, and 1.0 percent of other operations (see Figure 5).

Figure 5. Disbudding Methods by Operation Type

<table>
<thead>
<tr>
<th>Operation Type</th>
<th>Electric dehorner/debudder, hot iron</th>
<th>Caustic Paste</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat</td>
<td>93.3%</td>
<td></td>
<td>3.2%</td>
</tr>
<tr>
<td></td>
<td>3.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy</td>
<td>95.8%</td>
<td></td>
<td>1.2%</td>
</tr>
<tr>
<td></td>
<td>3.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>99%</td>
<td></td>
<td>1.0%</td>
</tr>
</tbody>
</table>

ARE ANALGESICS USED?

Analgesics or anesthetics reduce pain during the disbudding procedure.

- Types of analgesics or anesthetics used may include local anesthetics, nerve blocks, or non-steroidal anti-inflammatory drugs (NSAIDs) given topically, orally, or as injections.
  - Local anesthetics and nerve blocks are beneficial for reducing the pain felt by goat kids during the disbudding procedure.
  - NSAIDs reduce the pain felt by goat kids after the procedure.

Analgesics or anesthetics were used routinely on 30.4 percent of operations during the disbudding of kids. There were no differences across herd size, region, or primary production type of an operation that used analgesics or anesthetics routinely when disbudding kids.
The owner typically performs the disbudding procedure on 75.0 percent of all operations. A veterinarian typically performs the disbudding procedure on 16.5 percent of all operations. “Other” typically performs the disbudding procedure on 7.1 percent of all operations. A higher percentage of small and medium operations (18.5 percent and 18.2 percent, respectively) typically had veterinarians disbud kids than large operations (1.7 percent)(see figure 6). The owner disbudded kids on a higher percentage of large operations (89.8 percent) than on small and medium operations (71.0 percent and 74.8 percent, respectively).

Figure 6. Percent of Operations that have a Veterinarian Disbud Kids (by herd size)

More small and medium operations have a veterinarian perform their disbudding operations than on large operations.

18.5% of small operations
18.2% of medium operations
1.7% of large operations

To see new and exciting publications regarding this study, please visit www.aphis.usda.gov/nahms or scan the QR code. Materials will be updated regularly as they become available.