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Milk Marketing Practices on U.S. Dairy Goat Operations NAHMS Goat 2019 Study

Information Brief

March 2023

INTRODUCTION

Goat milk production in the United States has experienced continuous expansion over the last decade. Specifically, the dairy goat inventory increased by 60.7 percent from 334,754 head in 2007 to 537,799 head in 2017.¹ Furthermore, the number of farms raising dairy goats has grown from 27,481 in 2007 to 35,682 farms in 2017.

Goat milk has many uses, such as feeding goat kids, lambs, veal calves, piglets, and human consumption. The demand for goat milk and goat milk products, such as cheese, yogurt, candy, soaps, and lotions, has increased in the United States. Due to goat milk's unique nutritional and biochemical properties, consumption of goat milk is climbing, especially by people with cow milk allergies or gastrointestinal disorders. Enhanced management and biosecurity practices on dairy goat operations help ensure milk quality and goat health. Additionally, operation size and location may directly impact the production and marketing of goat milk and milk products. Large operations may market their milk through various avenues, including cooperatives and direct-to-consumer, whereas small operations may use the milk for personal consumption.

NAHMS GOAT 2019 STUDY

In collaboration with the National Agricultural Statistics Service, the U.S. Department of Agriculture's National Animal Health Monitoring System (NAHMS) 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. The study occurred in 24 of the nation's major goat-producing states on selected operations with five or more adult goats (figure 1).

As part of the effort to collect information on goat management, NAHMS requested producers who milked any dairy does in the previous 12 months and had five or more dry or in-milk dairy does on September 1, 2019, complete a supplementary dairy questionnaire.² This information brief covers the milk marketing practices on these dairy goat operations.

KEY TERMS

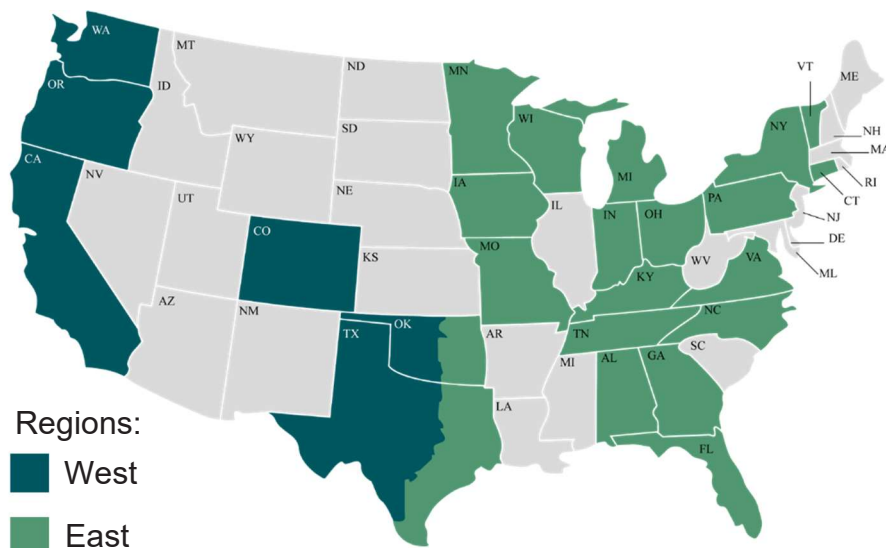


This information brief applies to the 14.3 percent of operations that milked any dairy does in the previous 12 months and had five or more dairy does, whether dry or in-milk, on September 1, 2019.

**Herd Size
(by dairy doe inventory)**



Figure 1. States/regions that participated in the 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.*

MILK USE

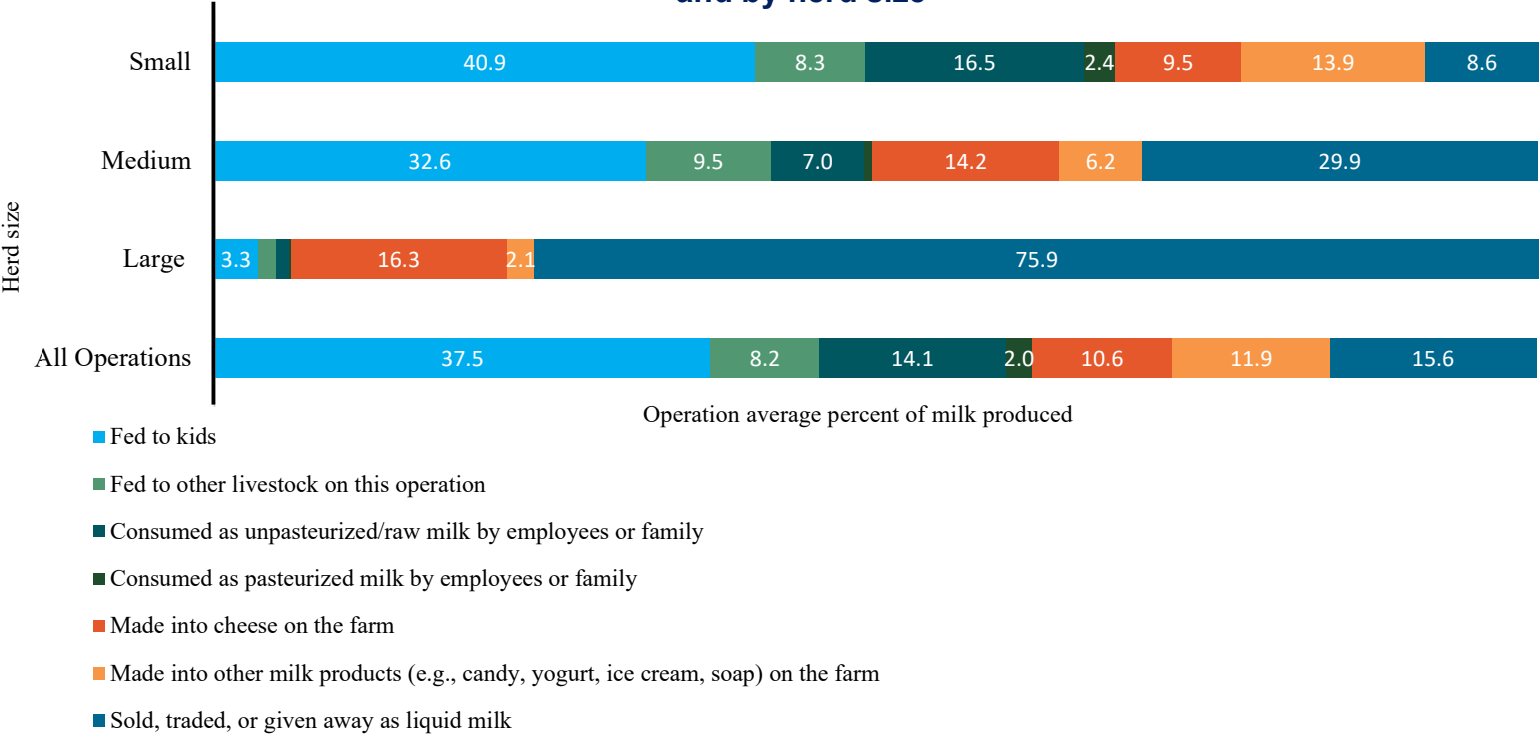
Milk produced on goat dairies has various applications, including feeding goat kids; feeding other livestock, such as lambs, veal calves, or piglets; personal consumption; or making goat milk products. Overall, 82.3 percent of all operations fed milk to goat kids, 50.8 percent made milk into cheese on the farm, and 53.9 percent made milk into other milk products, such as candy, yogurt, ice cream, or soap on the farm (figure 2).

Figure 2. Percentage of operations that utilized any milk produced on the operation for the following uses



Although operations used milk for a variety of purposes, over three-fourths of the milk produced was fed to kids (37.5 percent), made into cheese on the farm (10.6 percent), made into other milk products on the farm (11.9 percent), or distributed as liquid milk (15.6 percent). Additionally, figure 3 shows that the operation average percentage of milk by use varied by herd size. Small and medium operations fed a higher percentage of produced milk to kids (40.9 and 32.6 percent, respectively) than large operations (3.3 percent). As herd size increased, the percentage of milk consumed as unpasteurized/raw milk by employees or family decreased (16.5 percent of milk on small operations, 7.0 percent on medium operations, and 1.0 percent on large operations). An increase in herd size correlated with an increase in the percentage of milk sold, traded, or given away as liquid milk, with 8.6 percent on small operations, 29.9 percent on medium operations, and 75.9 percent on large operations.

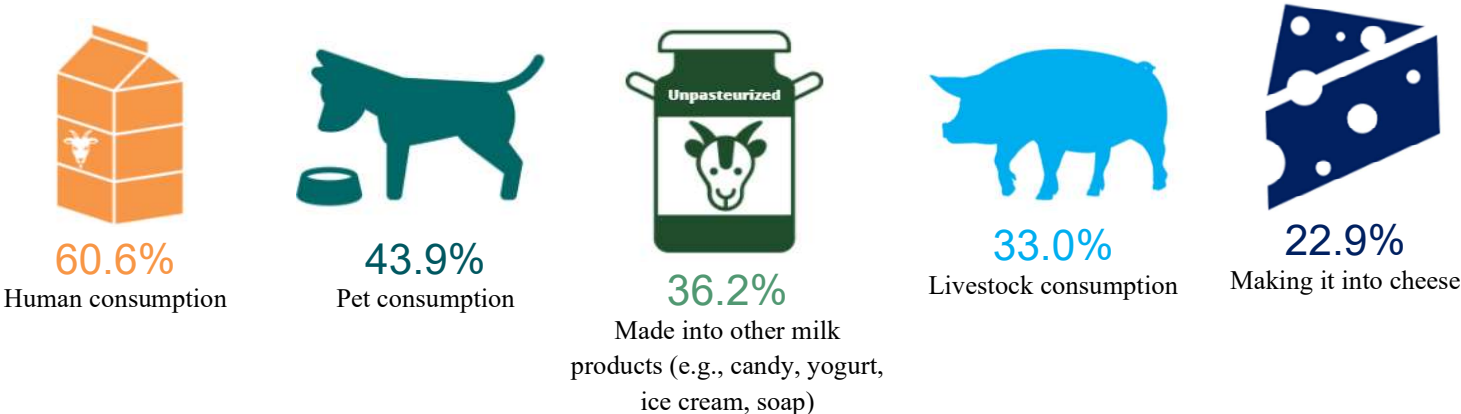
Figure 3. Operation average percentage of milk produced on the operation by use, and by herd size



USE OF MILK SOLD, TRADED, OR GIVEN AWAY

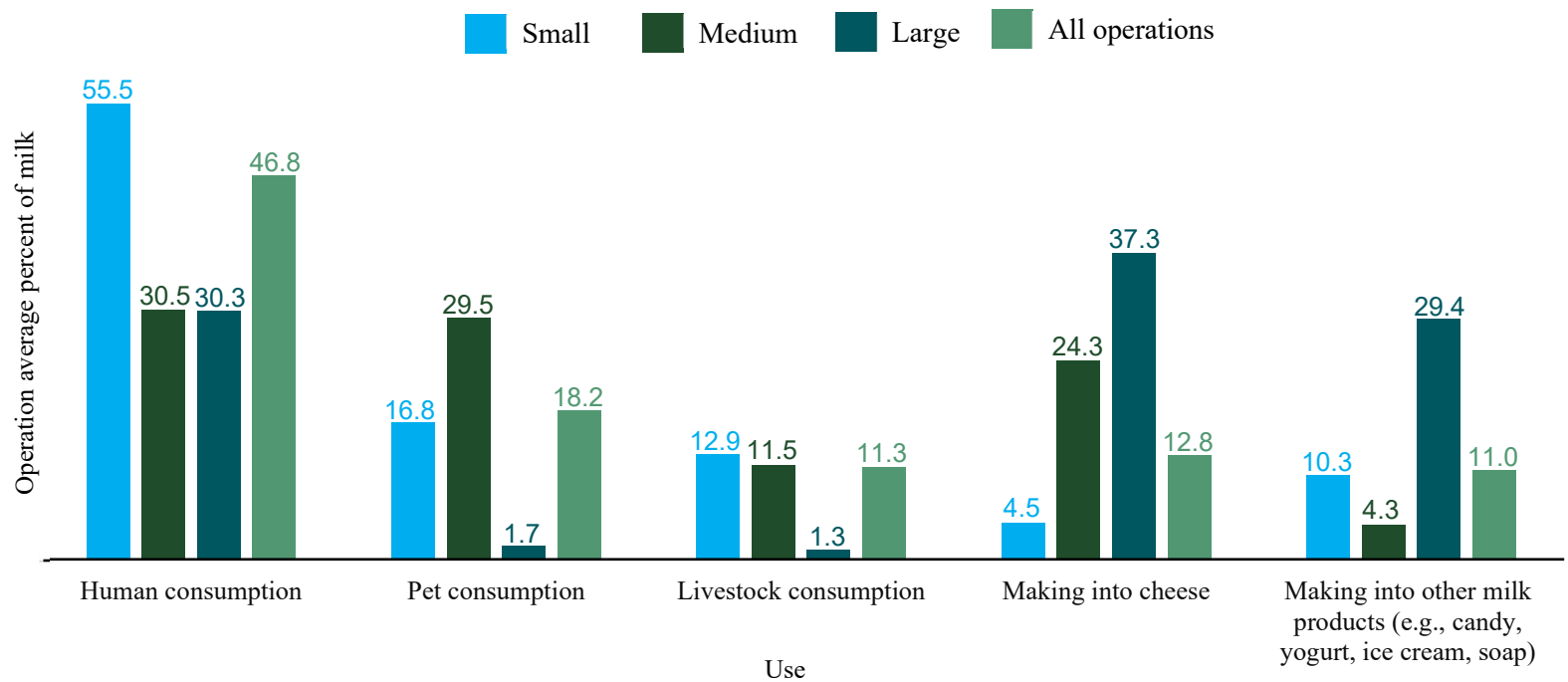
Just under half (46.5 percent) of operations sold, traded, or gave away any liquid milk. Of these operations, 60.6 percent sold, traded, or gave it away for human consumption, and 59.1 percent of operations sold, traded, or gave it away for production into cheese or other milk products (figure 4).

Figure 4. For operations that sold, traded, or gave away milk, percentage of operations that sold, traded, or gave away any liquid milk for the following uses



On operations that sold, traded, or gave away milk produced on the operation as liquid milk in the previous 12 months, the highest percentage of milk (46.8 percent) on all operations was used for human consumption (figure 5). Small and medium operations had a higher percentage of milk for pet consumption (16.8 and 29.5 percent, respectively) than large operations (1.7 percent). A higher percentage of milk on large operations (37.3 percent) went to cheese production than on small operations (4.5 percent).

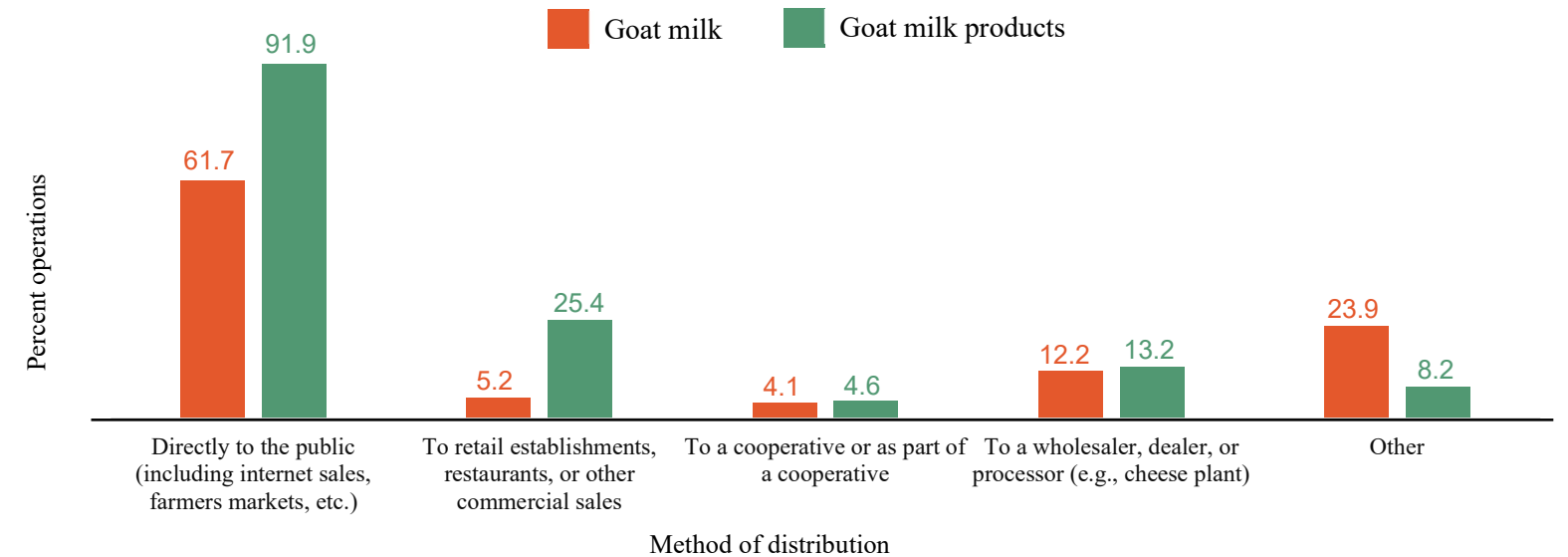
Figure 5. Operation average percentage of milk by use of the liquid milk that was sold, traded, or given away, by herd size



DISTRIBUTION OF MILK AND MILK PRODUCTS

Overall, 46.5 percent of operations sold, traded, or gave away liquid milk, and 34.8 percent of operations sold, traded, or gave away milk products such as cheese, candy, yogurt, ice cream, or soaps and lotions. Combined, 61.9 percent of all operations sold, traded, or gave away any goat milk or goat milk products. On operations that sold, traded, or gave away **any goat milk or any goat milk products** in the previous 12 months, the highest percentage of operations distributed milk (61.7 percent) or goat milk products (91.9 percent) directly to the public (including internet sales, farmers markets, or similar) (figure 6).

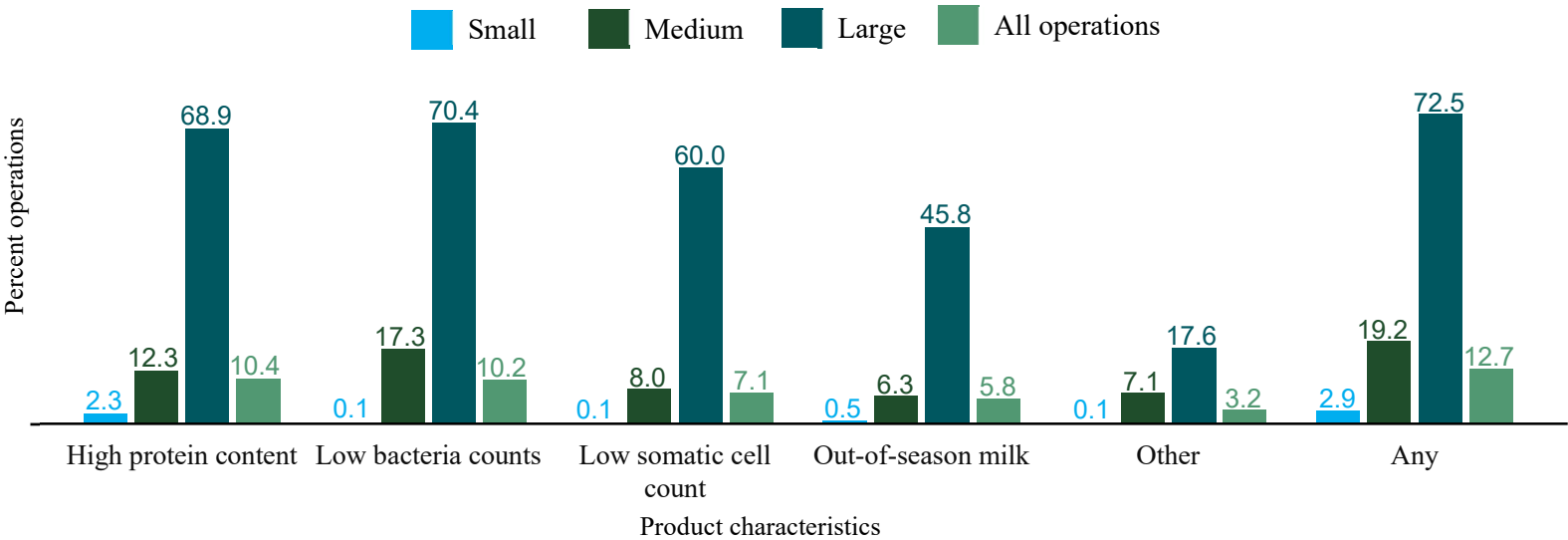
Figure 6. For operations that sold, traded, or gave away any goat milk or milk products in the previous 12 months, percentage of operations by method of distribution



PREMIUM PAYMENTS FOR MILK CHARACTERISTICS

Certain buyers may pay a premium for milk characteristics, such as high protein content, low bacteria counts, low somatic cell counts, or milk produced out of season. Producing out-of-season milk may require manipulation of the breeding season or increasing the lactation length of does. Breeding does between April and August, outside of the regular season, may help keep a more consistent milk supply throughout the year. On operations that sold, traded, or gave away any goat milk or goat milk products in the previous 12 months, 12.7 percent received a premium due to any product characteristics (figure 7). A higher percentage of large operations (68.9 percent) took in a premium for high protein content than small and medium operations (2.3 and 12.3 percent, respectively). A higher percentage of large operations (45.8 percent) collected a premium for out-of-season milk than small and medium operations (0.5 and 6.3 percent, respectively).

Figure 7. For operations that sold, traded, or gave away any goat milk or milk products in the previous 12 months, percentage of operations that were paid a premium for the following product characteristics, by herd size



MERCHANDISING OF MILK

Operations may choose to merchandise milk as certified organic milk or raw milk. Certified organic milk is an official label for dairy products indicating the product meets USDA organic production requirements. The label implies the producer followed specific requirements for feed and treatment protocols (for example, organic feed must be used, and antibiotics are not allowed), land management, pasture requirements, and housing. Overall, 1.3 percent of all operations produced any certified organic dairy milk in the previous 12 months (figure 8).

Pasteurization is a process that utilizes heat to destroy pathogens in food. The most common method of pasteurization in the United States is High Temperature Short Time (HTST) pasteurization, which uses metal plates and hot water to raise milk temperatures to at least 161° F for not less than 15 seconds, followed by rapid cooling. Raw milk or raw milk products are not pasteurized and can potentially transmit pathogens found in milk to humans consuming the products. Overall, 18.1% of all operations marketed any raw goat milk or raw goat milk products intended for human consumption in the previous 12 months.

Figure 8. Percentage of operations by merchandising claim



CONCLUSION

The use of milk on an operation may vary based on the operation's goals and size. Additionally, operations that market milk may do so through various marketing channels and distribution methods. Some operations may receive premium payments depending on their milk characteristics, while others may sell milk with specific merchandising claims. Overall, the market for goat milk and goat milk products appears to be growing and finding specific niche markets will help the goat producer meet these consumer demands.

REFERENCES

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