MARKETING MEAT GOATS: CHANNELS, SUPPLY AND DEMAND

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FRANK PINKERTON

Extension Goat Specialist

LYNN HARWELL

Livestock Marketing Economist

Clemson University

WILLIAM DRINKWATER

Livestock Marketing Specialist

Virginia Department of Agriculture

NELSON ESCOBAR

Extension Goat Specialist

PREFACE

This fact sheet is abstracted largely from a recent study conducted by the authors for the Southern Rural Development Center (SRDC), Mississippi State University (Pinkerton, et al, 1993). The major problem addressed was the lack of farm-level information concerning meat goat marketing channels, constraints, pricing patterns, and opportunities for market expansion. This problem was, and is, pervasive even in the leading meat goat producing states of Texas, Tennessee, Georgia, and Alabama; for those newly emerging production areas of Arkansas, Florida, North Carolina, Oklahoma, South Carolina, Mississippi, and Louisiana, the problem is particularly acute. Inadequate meat goat industry marketing information is thought to be due to lack of research-based Cooperative Extension Service efforts, to insufficient interest by many state Departments of Agriculture and, equally important, to the nature and structure of the industry itself.

The major objective of the SRDC study was to identify and characterize production, marketing channels and price margins for southern goats. A corollary objective was to disseminate the findings via Factsheets and other means.

INTRODUCTION

In 1990 the production and marketing of goats and goat meat was widely perceived by southern goat owners and Extension Service personnel to be largely unorganized, unobserved and unrecorded and was, accordingly, thought to be erratic overtime and place as to numbers, price, availability of retail product and consistency of quality. Equitable distribution of marketing margins across producers, middlemen, processors, and purveyors was also thought to be only imprecisely achieved (Pinkerton, Scarfe, and Pinkerton, 1991); (Pinkerton, 1991).

Producers and prospective producers, being virtually without relevant, accurate market information are seriously disadvantaged in basic decision-making concerning production opportunities and marketing options. Such disadvantage contributes to very cautious enterprise entry and/or expansion and also to delayed market response by small-scale farmers, part-time agriculturists, and established ranchers alike. Fuller, more equitable participation in this fledgling industry could appreciably benefit southern farmers with resources suitable for goat production. This economic development prospect was first recognized by Winrock (1986) in their benchmark study, "Strategies for Expanding Goat Meat Production, Processing, and Marketing in the Southeastern U.S." It assessed the economic and technical feasibility of production, evaluated potential demand, and modelled processing plant flows.

PROCEDURE

We initially contacted goat industry personnel already known to us and thereafter contacted persons and firms identified by the original informants as being market players of various magnitude. We then interviewed on site those who agreed to share information concerning industry production, processing and marketing practices. We also gathered assorted statistical data from state agencies, the U.S. Departments of Agriculture and Commerce, Canadian government entities, and from certain public livestock auctions.

Frequently, interviewees provided additional investigative leads while they were imparting historical and current knowledge of the goat trade across time and place. As expected, interviewees varied widely in willingness to share operational aspects of their firms. Many held quite divergent attitudes toward their suppliers and customers. Moreover, some interviewers spoke only guardedly while others spoke rather freely about their competitors. Considerable variation in assessments of future industry developments and prospects was also encountered. As always in such situations, we were obliged to make value judgements on the validity of the respondents replies and observations and, subsequently, to search for affirmations and contradictions among the aggregate findings.

Under the terms of the SRDC Grant, we focused on goat production in the South and markets along the northeast and southeast coasts. There are, of course, other production areas and particularly strong markets in California and Mexico.

MARKETING CHANNELS

Overview:

A marketing channel describes the movement of a product or commodity from the site of production to the place of consumption. It may include transportation, handling and storage, ownership transfers, processing, and distribution. Principal flow of meat goats originate in the inland areas, mainly the southwest, and terminate in the major metropolitan areas in the northeast and in Florida, Texas and California. Substantial and increasing quantities of goats are now originating from the southeastern and midwestern states.

Numbers of meat goats can be estimated from the U.S. Agricultural Census (total goats less dairy and fiber goats). About 75% of meat goats and 80% of all goats are found in the southern U.S. (11 states from Texas, Oklahoma to the Atlantic). Production of goat meat, from all sources, is undoubtedly more wide-spread and of greater volume than earlier believed.

Market Flow:

Traditionally, principal players in goat marketing channels were entrepreneurs who carved out a portion of the trade through shrewdness, determination, and economic or political leverage. Because the industry is now rapidly developing, market channels are becoming discernable, points of origin are better defined, and new processing plants and marketing techniques designed to better meet consumer needs are increasingly evident.

Figure 2 presents a flow chart of goat and goat meat movement. The chart depicts a relatively complex industry structure involving middlemen who function as traders, brokers and purveyors. The heavily marked lines indicate the major paths that goats take from producer to consumer, but there are regional differences in these pathways (Gudahl, 1987).

The nation's largest Angora and meat goat auction is at Junction, Texas; nearby San Angelo handles mostly meat goats. Other high volume auctions are located at Goldthwaite, Texas, Hackettstown, New Jersey and Lancaster, Pennsylvania with lesser auctions in Tennessee, Georgia, and Alabama. The largest processors are located in Texas; New Jersey, and Connecticut; Privacy Laws prevent publication of more detailed information.

Many goats move into the marketing channel as "trader" animals, frequently changing hand several times prior to slaughter.

Higher quality goats are available in lesser numbers but they do find a significantly better market than the more plentiful lower quality animals. Even for goats of superior quality, producers should attempt to access markets only through established channels and with reputable firms. To do otherwise could lead to frustration and financial loss. Processors and brokers marketing other animals could possibly expand into goat marketing with requisite planning and execution. In any case, there seems little question that the demand for both high and lesser quality goats is such that many more animals could be taken.

GOAT SUPPLY

Overview:

Figure 3 shows the current ranking of southern meat goat producing states. There are apparent discrepancies between goat inventories, auction runs and slaughter numbers reported.

Supply is more than simply an amount. Rather, it is a schedule of corresponding quantities and prices over a period of time which is designed to reflect the "production personality" of an industry. The concept of economic supply can be used to predict how a change in goat prices, for instance, would cause adjustments over time in the number of goats being produced.

Because the meat goat industry is rapidly developing, and because useful price data is as yet largely unreported, any estimates of economic supply would necessarily be poorly documented. Currently, the supply of goats seems to be expanding, mainly in response to an increase in demand and to improved potential for producer profits. Figure 4 provides evidence of this expanding supply in federally inspected slaughter numbers. However, there is also evidence that demand for both slaughter and breeding stock in certain production areas has reduced farm inventories, particularly in Texas.

Supply response is often triggered by changes in farm policy programs. The demise of the Wool and Mohair Act, announced in mid-October, 1993, has encouraged some fiber goat producers to shift to meat goats. Moreover, better conditioning of surplus Angora goats prior to sale could lead to increased acceptability in the slaughter trade and thus influence aggregate supply.

The economic concept of "elasticity" also relates to supply and measures the sensitivity between changes in production and price. A product with an elastic supply function would respond more dramatically to changes in price than a supply calculated to be inelastic. We can say that the supply of meat goats seems rather elastic, meaning that sustained improvements in prices offered would result in substantial increases over time in the production of meat goats.

However, many producers and prospective producers of goats in this country face resource limitations. These limitations may be mostly financial, but they may also be either knowledge, time, or land area and suitability. In any case, such limitations can delay response time for increasing goat numbers even when favorable prices are encountered. Beyond stating that the supply function for meat goats is shifting upward and appears to be elastic, it is best to concentrate at present on how many and what kind of meat goats there are, and how and where they are being produced.

Types and "breeds" of goats for meat:

With the exception of the South African Boer goat imported via New Zealand in early 1993, there are no true meat goat breeds in the U.S. There are, however, three types of goats used for meat: dairy, Angora and "Spanish." There is much diversity between and within these types as to production and carcass traits. Indeed, it is so great that many goat industry players feel it is a serious impediment to orderly production and marketing.

There is little research to characterize these types of goats for meat production and carcass merit. However, four key traits amendable to genetic improvement in goats used primarily for meat production have been identified (Shelton, 1990). These are: 1) adaptability to environmental and production conditions, b) reproductive rate, c) growth rate and d) carcass value. To date, no single U.S. breed or type possesses an acceptable array of these traits.

Geographic Areas of Goat Production:

By informal estimates, Texas is home to approximctely 350,000 Spanish goats; perhaps another 150,000 head are found primarily in Tennessee, Georgia, Alabama, Florida, Virginia and the Carolinas under various aliases (brush, woods, briar, hill, scrub). Texas also has about 90% of the 2,000,000 Angora goats with the remainder in New Mexico, Oklahoma, Arizona and Michigan plus smaller quantities elsewhere. The U.S. dairy goat population, totaling about 1,000,000 head, is widely scattered, but the major areas are the west coast, the mid-west, the northeast, Texas, Pennsylvania, New York and Florida.

Systems of Goat Production:

Extensive:

The majority of Spanish goats and almost all Angora goats are managed within an extensive system, primarily in arid and semiarid regions, with brush, forbs and grasses being the primary sources of nutrients year round. The seasonal availability of nutrients markedly affects production facets such as rate of gain in kids, body weight changes in adult animals and, of course, reproductive performance. In

commercial practice, supplemental feeding of protein and energy is restricted to winter and drought periods.

In the southeastern U.S., many Spanish goats are also raised under extensive conditions. Since the temperatures, rainfall and soil types differ markedly from southwestern goat lands, the available type, quantity, and quality of forage is considerably different. Carrying capacities in these "wet brush" areas may be 2-3 goats/acre initially and thereafter 1-2/ac for the long growing season as compared to 2-4 acres/goat in the more arid southwest.

Intensive:

These goat enterprises are usually small (20-100 head) and use few but productive acres. Many feature improved pastures, rotational grazing, supplemental forage and concentrates and better medical care than usually found in extensive units. When well managed, does kidding may approach 100% and weaning rates may be 180% with kids considerably heavier than their extensively grown counterparts. The relative profitability of intensive systems is subject to many variables reflecting site-specific operations.

Dairy Goats:

Relatively few dairy goats are kept for commercial milk production; the majority are kept for home milk consumption, for showing, for hobbying, and for sale as breeding stock. In all cases, there is a surplus of male kids, non-replacement doelings and cull does and bucks. Currently, most are being sold for slaughter; in the past, however, prevailing meat market prices discouraged deliberate growing of kids for this purpose. Alternative milk usage is the overriding economic concern of producers because kids can not be economically fed milk that could be sold for fluid and/or cheese use.

Regardless of the system used for producing meat goats, herd reproductive rate is of paramount importance to gross income and net profit. According to Shelton (1984), most meat goat producers follow a practice of running males with the females on a more or less continuous basis. This is the simplest management practice and may well contribute to maximum production, typically 1.25 to 1.5 kids weaned per doe exposed under extensive conditions. Most meat and dairy goats are seasonally polyestrous with recurring estrual periods from mid-summer through mid-winter. Some matings outside these dates occur. Under Texas range conditions, kids tend to be born in mid-winter and late spring. Dairy goat kids tend to be born February, March and April.

A more controlled breeding/kidding sequence may be useful to: a) exploit special market situations, b) avoid mid-winter kidding, or c) more closely fit seasonal forage supplies. Breeding "out-of- season" has been accomplished by taking advantage of the well-known buck effect and in dairy goats by "lighting." Manipulating light exposure of bucks and does will result in induced estrus cycle and will prompt the

bucks to mate. Another method is the administration of hormones to induce estrus. Presently, those products are not approved for use in goats.

To meet Christmas, Easter, and Ramadan demand, producers need to have 25-40 lb kids ready for sale in mid-December and mid-February through late March. Well managed kids can usually reach these weights in 6-12 weeks. The gestation period for goats is about 150 days.

CONCLUSIONS

1. The present systems of both goat production and marketing are rather haphazard with substantive variations in animal availability, body weights and condition at slaughter, and variable carcass characteristics. There is also a lack of standardized processing techniques and an inadequately developed product distribution system.

2. Rationalization of production and marketing of slaughter goats is essential if future demand is to be met and if all players in the marketing channel are to receive reasonably equitable returns; modifications in industry practices, though obviously needed, will likely be slow in coming.

3. The current industry practices of marketing mostly whole or half carcasses should be altered over time and place to sales of primal and retail cuts and value-added products.

4. University research and extension programs in production, processing and marketing of goat meat are scarce and should be initiated and sustained to assist in rapid, orderly industry development.

5. While yet a predominately adolescent industry, signs of maturity are beginning to emerge. Major players, with some notable inter-city exceptions, will not likely be the same five to eight years from now. As sale volumes continue to increase, so also will sophistication in transportation, processing, and marketing.

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REFERENCES

Gudahl, D.J., 1987. Potentials for improved marketing of excess goats -- Part I. Dairy Goat Journal, December, P. 24.

Pinkerton, F., A.D. Scarfe and B.W. Pinkerton, 1991. Meat goat production and marketing. Fact Sheet No. M-01. E (Kika) de la Garza Institute for Goat Research, Langston University, OK.

Pinkerton, F., 1991. Utilization of goat meat and goat meat products. E (Kika) de la Garza Insitute for Goat Research, Langston University, OK.

Pinkerton, F., L. Harwell, N. Escobar and W. Drinkwater, 1993. Marketing channels and margins for slaughter goats of southern origin. Southern Rural Development Center, Mississippi State University.

Shelton, M., 1984. Meat goat production. IN: Extension Goat Handbook, USDA.

Shelton, M., 1990. Selection for meat production in goats. IN: Proceedings. Meat Goat Production Seminar, December, Texas A&M University, San Angelo.

Winrock International, 1986. Strategies for expanding goat meat production, processing, and marketing in the southeastern United States. Winrock International, Morriton, AR.