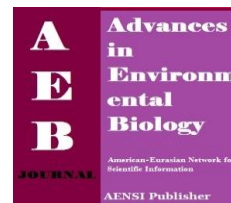




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Mohair: Uses, Preparation and Marketing in Iranian Markhoz Goat

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ABSTRACT

The Angora is considered a single coated animal since fibers produced by the primary and secondary follicles are of comparable dimensions. Mohair is the white, lustrous fiber produced by Angora goats. Mohair is produced in a broad range of average fiber diameters. Angora goat management is also a mohair preparation activity since it can greatly affect the quantity and quality of fiber production. Poor nutrition results in relatively lightweight fleece containing short and dull (but fine) hair. Production and marketing of a good mohair clip begins with the breeding program. Much of the genetic progress is realized through selection of breeding males. Ideally, these should be selected utilizing some type of performance data.

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INTRODUCTION

Mohair is the white, lustrous fiber produced by Angora goats. The Angora is considered a single coated animal since fibers produced by the primary and secondary follicles are of comparable dimensions. As a result of selection, Angora goats have a reduced tendency to shed their fleece, but this can still result in significant fiber loss if they are not shorn in the spring. If goats are shorn only once per year, as is true in some countries (i.e., Argentina, Lesotho and Turkey), it is necessary that this shearing be in the spring. It is apparent that there are genetic differences or degrees of genetic control in the tendency to shed, as the present population has evolved from an ancestral type in which complete shedding of the fleece occurred. Most Angora goats are shorn twice a year after the fibers have attained a length of about 4 inches or more. Each animal produces from 1.5 lb (6-mo kid) to 25 lb (mature male) of grease mohair per clip with the typical mature female shearing in the range 3.5 - 9.0 lb. In South Africa, shorn fleeces are assigned to several of 189 classes prior to sale. In this system, mohair is classed according to animal age, average fineness, length, style, character and degree of contamination and requires minimal or no further preparation prior to scouring. In contrast, much of the U.S. clip is packaged in "original bag" (OB) form with little or no removal of inferior fleece portions (e.g., stained and heavily contaminated mohair) prior to packaging. This mohair is usually classed and/or sorted at the warehouse or by the first buyer prior to processing. However, the Texas industry has recently adopted a set of guidelines for marketing mohair and it is anticipated that this will result in more mohair being sorted and classed prior to sale.

End Uses of Mohair:

In earlier times, mohair was used primarily in textiles that were required to be highly durable. The high resistance to wear of mohair was thus used to advantage in heavyweight, upholstery pile fabrics such as those common in public vehicles. As the fiber evolved in to a luxury item, this particular end uses declined although its use in luxury plush and pile fabrics is still common. In blends with wool, finer grades of mohair are used to produce lightweight (tropical) suiting. Mohair has the capability of being dyed to very bright shades while retaining its natural luster. These attributes, in particular, are used to produce attractive dress materials, shawls, stoles, plushes, astrakhans and various types of women wear coatings composed typically of velour fabrics but also novelty fabrics containing bouclés and worsted yarns. Mohair is also used to produce smooth, high quality linings for suits, curtains, drapes and table coverings. A small amount of mohair is used to produce highly resilient carpets, rugs and paint rollers.

The major use for mohair in the recent past was in hand-knitting yarns in which the natural luster and brightness of mohair combined with its smooth handle, warmth and tendency to resist dirt, creasing and felting provide distinct advantages over synthetic fibers and even wool. The bulk of these yarns are knitted into

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sweaters and other ladies wear accessories. Brushed yarns and fabrics composed of adult mohair and mohair-rich blends often dominate the sweater market when the fashion pendulum swings in this particular direction. At the time of this writing [1], the percentage of mohair being used in hand knitting yarns is below the 65% and this has had an adverse impact on demand and price. Most of the U.S.-produced mohair is exported. Traditional import or consuming countries have been England, Spain, Italy, Belgium and Japan. However, currently developing markets, particularly for the coarser grades of fiber, are China, Taiwan, India and the former Soviet Union.

Mohair Preparation, Grading And Marketing:

Much has been written about preparation and marketing of U.S. wool [2]. In comparison, little information exists in the U.S. literature concerning optimization of the value of grease mohair through preparation and marketing. Production and marketing of a good mohair clip begins with the breeding program. Much of the genetic progress is realized through selection of breeding males. Ideally, these should be selected utilizing some type of performance data. Nannies should be selected for fleece weight, length, diameter, style and character (breed and lock). Goats with excessively coarse necks and/or britches or short staple mohair over certain parts of their bodies should be culled. Mean fiber diameter should be well within the expected range for a specific age group. In so far as numbers permit, older animals should be culled before the fleece weight deteriorates or the hair becomes straight or overly coarse. Angora goat management is also a mohair preparation activity since it can greatly affect the quantity and quality of fiber production. Poor nutrition results in relatively lightweight fleeces containing short, dull (but fine) hair. External parasites, especially lice, undermine the appearance of fleeces. However, data from a recent experiment indicate that the effects of short-term lice infestation on objectively measured mohair properties may have been exaggerated [3]. Angora goats should be managed to minimize plant (vegetative) contamination of fleeces. The next important component of clip preparation is adequate working facilities including pens, shearing floors and sheds. These areas should be clean, free of mud and dust and well lit. Many producers prefer a concrete shearing floor which is easy to keep clean but can be hard on shearing equipment. A sheet of plywood laid over the concrete makes for a more efficient and comfortable work station. Shearers should develop the skill to remove the bulk of the fleece in one piece since this greatly assists in sorting/grading. Shearing of Angora goats is similar to sheep except that in the final move they are sheared with a stroke of the shearing head from the belly to the back, starting at the rear of the animal. This permits the shearing head to move against the way the locks are presented and thus to reduce double cuts. Shearers should be provided with clean oil for their shears. Burnt motor oil is difficult to scour out of mohair. Specific responsibilities of growers and shearers in preparation for and during shearing are listed in the American Sheep Industry Code of Practice for Preparation of Wool Clips in the U.S. [4] and are equally applicable to goat raisers as sheep producers. Similar information is well documented in the Proceedings of the Mohair Preparation Seminar that is conducted annually under the auspices of the Mohair Council of America, Texas Agricultural Experiment Station and the Texas Agricultural Extension Service.

Typically, animals are separated by age prior to shearing. This permits the producer to shear and package kid, yearling and adult hair separately. Gate or chute-cutting may be used not only for separation of age groups, but can also be used to separate the adult flock into broad quality groups. The next level of preparation is removal from individual fleeces of all stained fibers. Mohair fleeces differ in most measurable characteristics; fineness, yield, vegetable matter type and content, length, strength, color, etc. When individual fleeces are subdivided according to any or all of these characteristics, the process is called sorting (or classing, particularly in South Africa). Sorting is probably the ultimate form of clip preparation since it results in matchings that may be scoured and utilized directly by the textile industry. When fleeces having a small range of fiber diameter are packaged together for marketing purposes, the process is known as grading. Theoretically, any degree of clip preparation can be conducted at the ranch. In practice gate cutting a flock of goats into age groups followed by a second division of each group into "fine" and "coarse" sub-groups, for example, is as much clip preparation as some producers can organize or justify. In contrast, some conscientious mohair producers are currently delivering fully-prepared mohair matchings directly to the warehouse. In many instances, it is probably more convenient for producers to pay for mohair to be sorted at the warehouse than to attempt this task on the ranch where time and skill are often inadequate to do a reliable job. In this context, it is important to note that a mediocre sorting job is virtually useless in terms of adding value to the clip. To obtain compensation for clip preparation and sorting, it is essential that all defective (e.g. short, stained kempy) mohair be removed from the main lines and that different grades are kept completely separate. In short, if ranch clip preparation is to be rewarded, it must be done properly. Mohair grading and sorting have been marketing tools in Texas since at least 1940. However, until recently, only a few warehouses have provided this service. A Texas Agricultural Extension Service report (5) estimated the financial return for grading mohair at the warehouse. The same article attempts to identify conditions under which a clip should not be graded due to fleeces containing no fine and/or a high proportion of stained mohair. The economics of sorting or classing mohair will be highly variable between years (and flocks) and is greatly dependent on the premium received for superior types. For over 16

years, South African producers have sorted and classed the 11 mohair prior to sale. Cape Mohair Classing Standards incorporate 18 separate classes, mohair being differentiated by such variables as animal age and breeding (kid, adult, crossbred, etc.), length, style and character fineness, kemp content, vegetable contamination and stain. To some degree, these 189 classes represent description as contrasted to the product of sorting or matching. Prior to sale by auction at a central location, small lots are consolidated into larger ones, thus dispensing with the disadvantages associated with marketing small lots. These practices, in conjunction with higher clean yields, have resulted in South African mohair prices being consistently higher than those of similar types in the U.S. Tradition and opportunity also appear to play a part in this price differential. The observed differences between the prices in the U.S. and R.S.A. have caused numerous U.S. ranchers and warehousemen to pay more attention to mohair preparation. It has been claimed that such practices have resulted in comparatively higher selling prices. Intuitively, these claims seem reasonable. However, because of the short-term volatility of the mohair market, it is difficult to fully substantiate all claims. Furthermore, because of the extra time or manpower requirement of the intensive preparation methods it is often difficult to demonstrate cost-effectiveness even when superior prices are realized. With this background, a multi-year experiment was designed to study the technical and economic consequences of ranch-preparing mohair at shearing time [7]. The economic results of the first two and a half years of the study may be summarized as follows. Selling mohair that had been graded at the ranch according to fiber diameter did not result in significant economic advantage compared to selling comparable hair using the conventional original bag methods. Mohair from this study was sold in a declining and sluggish mohair market. It was not possible to sell all the mohair from a particular clip at one time. Thus, a truly valid comparison and interpretation of the economic data were not possible. The report does not address the questions: how would preparation affect mohair prices when demand is high; what would have been the result of a similar experiment if the grading and sorting had been conducted according to South African standards; what would the economic effects of moving stain and grading mohair if all U.S. producers used such a system, a marketing tool? Obviously, answers to the broader questions have yet to be found. Even without answers to all these questions producers are encouraged to sort into age groups, remove defect and stain and to be alert for opportunities to gain financial advantage from a system of better preparation. They would also be advised to consult with their warehouse operators or with others in the process of mohair marketing on a regular basis. There are currently [1] thought to be 29 warehouses operating in 22 cities in Texas and New Mexico which are actively involved in marketing mohair. One of these should be in traveling range of most Texas and New Mexico producers but access to marketing facilities may present problems for producers in some other states. In general, mohair is packaged and sewed into special 6-foot long jute bags and transported to a warehouse. A small quantity of mohair is sold to buyers "at the farm gate." Some warehouses purchase mohair from producers. Most warehouses operate on a commission basis. Some marketing agencies specialize in selling OB mohair. Others have adopted the marketing strategy of offering mainly matchings. In the latter case, classing or grading of the mohair in the warehouse is normally a prerequisite of sale since it permits warehouse personnel to control quality. This is achieved semi-continuously on a belt or batch wise over a table. However, some ranch-graded hair is accepted from producers with established grading expertise and/or when warehouse personnel were present and supervised grading at shearing time. Some U.S. mohair is core-sampled and tested prior to sale but most is only subjectively assessed by prospective buyers. Most of the U.S. clip is sold in sealed-bid sales or by private treaty in contrast to the public auction system most commonly used in other countries.

Marketing Philosophy:

South African mohair is prepared and classed to a much higher degree than most U.S. hair. Type for type, buyers generally pay more for South African hair, even on a clean basis. The question arises, "Is South African mohair superior in quality to U.S. mohair?" The author believes this not to be the case. Rather, mohair buyers are willing to pay higher prices for (relatively) large lots of uniform (length, diameter, style, character, etc.) mohair when offered through the South African Marketing System. Recognizing this, in 1990 the Texas Sheep and Goat Raisers Association adopted guidelines for marketing graded mohair and several Texas warehouses are currently using these or very similar guidelines in their marketing strategies.

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