## ON THE ANGORA GOAT.

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Since I had the honor of addressing the Fellows of this Society, in the session of 1873, upon the subject of Angora Goat breeding, a paper has been published among the proceedings of the Victorian Zoological Society, treating this question so ably, that I find a difficulty in adding anything to it.

The writer, Mr. Samuel Wilson, has had exceptional opportunities of observation, and he has adopted a most convenient mode of tabulating the results of his experience and of his calculations.

When I first introduced this subject to your notice, my object was to exhibit, by the aid of specimen skins, the gradations by which a marketable Angora fleece can be attained, starting from the first cross between the Angora and the worthless common goat.

Angora hair of the best quality is worth 3s. to 4s. per lb.; the average annual yield, 4 lbs., or say 14s. per head.

There is on the table a sample from the fleece of a pure goat, the property of Mr. Charles Clark, late of Ellinthorp. This animal carried 8 lb. 10 oz. of washed hair, which sold in London at 2s. 9d. per lb., the reason for the low price being the small quantity offered for sale. On the same occasion Mr. Clark sent hair from half and three-quarter bred goats, which was valued at about 9d. and 1s. 6d. respectively.

The peculiarity of the Angora Goat consists in the character of its fleece. Nature provides all animals with clothing exactly suited to the climate and circumstances under which she intended them to live. For this purpose their skins are supplied with a covering of hair or fur, or a combination of the two. In warm climates the covering is light and cool, while in colder regions a warmer and more furry clothing is bestowed. The opossums and kangaroos of Tasmania, for example, have much thicker fur than those of Australia. Men have taken advantage of this natural arrangement, and after reclaiming various wild animals have cultivated those attributes which suited their own requirements.

All goats in this climate will be found on careful inspection to bear a small quantity of silky hair near the skin, completely hidden from casual observation, by the coarse outward hair. This inner hair may be obtained in small quantities by combing.

The Angora raised in a climate peculiarly fitted for the production of this silky hair, has been bred with a view to its

development. The best specimens have no doubt been selected for propagation, until the silky coat has been improved to a length of 12 inches, and the coarse hair has almost disappeared.

That all our fine wools have been subjected to a similar process of improvement admits, I think, of no doubt.

Some think the preferable plan of starting a flock is to commence with a few pure goats, and trust solely to their increase. By this process considerable time must elapse before a large number could be raised, while by commencing with the common goats you can obtain, by crossing in six years a valuable flock, only limited by the number of common goats procured as the commencement of operations. It is urged as an objection to this system that you can never reach absolute purity. Theoretically this is self-evident, but practically you can eliminate every trace of base blood.

By constant use of pure sires, and by judicious selection, a standard would be reached at least as pure and as certain to breed true to type as that of the improved Leicester sheep, the modern fox-hound, or what we call the thorough-bred horse. All these animals have been raised to their excellence by human means, and bear but distant resemblance to the original founders of their families.

Mr. Titus Salt raised a valuable flock in England from Angora sires and common goats, and I am informed that the best flock in America never contained a pure bred female.

Still it is desirable that pure does should, if possible, be obtained as the readiest means of procuring the pure males, which are indispensable. It is well known that when animals have been bred from one strain for many generations their peculiarities become so fixed, that when they are crossed with others less pure, the progeny will most resemble the well-bred parent. Where both parents are cross-bred, the character of the progeny cannot be foretold, although I have little doubt that a fixed law is obeyed, where we see nothing but a capricious effect of chance.

The trouble and expense of managing a flock would be less than that required for sheep. Goats are much more intelligent and less liable to destruction by dogs, and as they browse more upon shrubs, and can climb along the butts of sloping trees, or ascend the steepest rocks, a supply of food is available for them, where sheep would starve. Against these advantages, however, must be set the facts that kids are far more helpless than lambs, for the first week of their lives, and that the does exhibit the maternal instinct in a very mild form, wandering away from their kids and leaving them a prey to the crows, their most formidable foes.

I have observed that when the flock crosses a dead wood fence, where the kids cannot follow, the mothers do not always return to seek them.

No ordinary fence will restrain goats, and as they are restless, energetic, and destructive, cultivation is not profitable in their vicinity. Hawthorn hedges and ornamental shrubs, possess peculiar attractions for them.

They have great attachment for home, and can be depended upon to return to their sheds at night. Shelter should be provided for them, as they evince great aversion to rain, and will remain all day under cover in wet weather.

Angoras are not so prolific as common goats, and require more attention during the breeding season.

Mr. Wilson adopts the plan of shearing twice during the year. I do not think it would be advisable to do so in this climate.

The flesh of goats in good condition has much the appearance of mutton, but is firmer in the fibre, and not, in my opinion, quite so palatable.

The wethers accumulate large quantities of internal fat, which is remarkably firm and white, and should be a valuable tallow.

The dry, heath-covered, hills on our eastern coast should provide sufficient food for goats, where sheep cannot be profitably kept.

Gorse and briars are eagerly sought for, and hedges of either are kept carefully trimmed where goats have access to them.

The chief reason why the sheep have from early days been preferred to the goats, is that the latter had no fleece to be shorn. The introduction of the Angora would remove that ground of preference.

I do not anticipate that goats will ever supplant sheep on the best grass lands of Tasmania, but I believe they will cause a good deal of land now idle and valueless, to be taken up and utilized in the production of an important article for manufacture or export.

The skins now exhibited show very clearly how the silky hair increasing with each fresh infusion of Angora blood, displaces the coarse shaggy covering of the common goat.

The skin of a half-bred is covered with the two distinct kinds of hair in about equal quantities. The three-fourths Angora has a fleece in which the silky hair attains a length sufficient to hide the common hair from sight, and the next cross approaches, in the best specimens before you, to the standard of the pure goat—the mohair being as fine and nearly as long, although not so abundant, as in the thorough-bred.

In some of these skins you will observe that a coarse hair of equal length to the fine is mixed through the fleece ; this is an undesirable quality, and arises from the use of goats with long coarse hair in the first instance. A great deal depends upon the judgment with which the original stock is selected. There is one skin here, which I exhibit as a remarkable instance of what is known as " throwing back," or a recurrence to the appearance of some remote ancestor. The goat from which this skin was taken had three-fourth bred sire and dam, yet it does not show any resemblance to an Angora, but is covered with hair as long and coarse as the mane of a lion.