but when spring came, notwithstanding the fact that the ewes had been bred to the ram which seemed in the best physical condition, the lambs did not show the improvement from a fur standpoint which we expected, except those lambs which came from the two ewes that the previous year gave us two good lambs.

FLEECES DETERIORATE.

A careful examination of the curls of the lambs of the two good ewes showed, however, that there was less lustre than the year before, and less tightness of curls, and my father remarked that we would probably find that the same Karakul sheep which gave us excellent result in Bokhara would fail us in Texas, where the climatic conditions were different, especially as far as rainfall is concerned.

The third year showed considerable improvement, especially with the two good ewes, which gave excellent results. We then began to study the original five rams and noticed that the character of the wool was not the same, and that Teddy, named in honor of Roosevelt, and another ram had coarse long wool, whereas the others had two classes of wool fibers a long coarse gray wool, in which was hidden a fine lustreless short, reddish wool resembling microscopically that of our Merinos. To our great surprise we found that the two good ewes also were free from the fine underwool. The next year, we satisfied ourselves absolutely that the fine wool present in most of the sheep was entirely responsible for their inferior fur-producing qualities. We named sheep which contained this fine wool "Karakul Finewools" but later, when we found that this fine wool came into the strain through the admixture of some fine-wool-bearing Afghans, we changed the name to "Karakul-Afghan."

It was quite by accident that I found out that by breeding Teddy to the Karakul ewes fairly good results were obtained, especially from those ewes that had less fine wool in them; and in one case a Karakul-Afghan ewe that had but little fine underwool, which was bred to a son of Teddy, himself not entirely free from fine wool, gave us a fair lamb, which was exhibited in Omaha in 1911 by Joseph F. Simonson.

A number of other tests finally convinced me that a very small amount of fine wool can be overcome, and considerable fine wool in ewes can be neutralized, where the ram is entirely free from the short fine underwool. Two crosses suffice to breed it out entirely.

DIFFERENCE IN CROSSES.

Where we crossed Merinos and Shropshires with Teddy, a very inferior skin was produced,[2] in which there was great lack of lustre, and a very imperfect curl formation, giving the skin a matty appearance, valueless from a fur standpoint, but excellent results were obtained when the same ram was bred to such of our lustrous longwools as Lincolns, and such red Persian fat-rumps as were entirely free from short wool, and possessed very coarse wool.

Where Teddy was bred to longwool ewes, free from fine wool, and the skins of the lambs were obtained the first few days after birth, they showed tight curls uniform in size and posesssing the required lustre. Such half-blood skins were valued by Pretorius and Thorer, assisted by Henry Basch of New York, to whom we were referred by the Department of Agriculture, at from $8 to $12 per skin. In all cases where the prices ranged from $3 to $4 the skins showed lack of lustre and curl formation, which was easily traced to fine wool, either in the Karakul rams or grade native longwools. The Middlewater Cattle Company, which purchased all the so-called Persian sheep of Col Charles Goodnight, found that these were valueless, except where the ewes were free from fine underwool, and only where Teddy was employed were the results satisfactory—in fact, most of the $12 skins were halfblood Karakul-Persians.

The red Persian fatrump, erroneously called broadtail, and sometimes fattail,

[2] The second cross is greatly improved.