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SHRINKAGE OF WOOL.

C. F. CURTISS.

It is often desirable to know the loss occasioned by shrinkage in handling and holding wool under varying conditions. With this end in view, as well as to make a comparison of different methods of storing wool, twenty-four fleeces, divided into four lots, were stored by three different methods and weighed periodically (generally monthly) for a year. Three lots of the wool were from high grade Shropshire sheep, clipped from between the 14th and 18th of April, 1892.

One lot, consisting of five fleeces was weighed, fleeces separately, and packed in a dry clean box just large enough to contain the wool conveniently and a close fitting cover nailed on.

Another lot containing eight fleeces was weighed in the same manner, and sacked and suspended from the ceiling.

Another lot of five fleeces was placed on a shelf and closely covered, so as to exclude all dust and prevent disturbance.

On the 24th of June another lot of six fleeces was secured from Mr. A. E. Slater, a farmer in the vicinity of the college, and weighed and sacked and placed under the same conditions as the other lot of sacked wool. This wool was sheared about June 15th, from a flock of sheep in which the Shropshire and Southdown blood was pretty well mixed, with the former predominating. The object in securing this lot was to compare the shrinkage of wool clipped later in the season with the early clipped wool. All of the wool was stored in the same room, a dry well ventilated sheep barn, and exposed to a free circulation of air. All of the fleeces were weighed separately at the beginning and end of the test period, but the intermediate weights were taken collectively.

The following table presents these weights for each lot:
<table>
<thead>
<tr>
<th>Aggregate Weight</th>
<th>JUNE CLIPPED WOOL</th>
<th>BACK</th>
<th>AGGREGATE WOOL</th>
<th>BACKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleece No. 1:</td>
<td>49%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>June 24. Weights</td>
<td>49%</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>39%</td>
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</tr>
<tr>
<td>Gain M. Lb.</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

Weights at shearing time, April 15th.
Weights June 1st.
Weights July 1st.
Weights August 1st.
Weights September 1st.
Weights October 1st.
Weights December 1st.
Weights February 1st.
Weights March 1st.
Weights April 1st.
Weights May 1st.
Weights June 1st.
Weights June 15th.
In taking the single fleece weights a ¼ oz., 60 pound meat scale was used, and when the fleeces of a lot were weighed together a Fairbanks platform scale was used. The same scales were used for all similar weights.

It will be seen that there was practically no change of weight in the first three lots of wool sheared in April. In fact, the aggregate weight of the three lots on June 15, 1893, was exactly what it was when taken off in April, 1892. Some variation occurred in the meantime, a few of the changes being hard to account for, but the variation was not great at any time.

The late clipped wool, however, showed a loss during the year of about 6 per cent of the original weight, and as the first weight was not taken until a week after shearing, there may have been an additional loss that was not determined.

All of the wood used in this investigation was the product of well kept flocks, and bright and clean. The wool embraced in the first three lots was all from the college grade flock, and of uniform quality. That purchased from Mr. Slater was from a flock almost if not equally as well kept, and this wool was, if any different, perhaps a little brighter, and less oily on account of the Southdown blood in the flock. This condition would tend to lighten the shrinkage.

The indications from this investigation are that—

**First.** April clipped medium wool from a well kept flock, free from dirt and stored in good quarters, will not shrink in weight to any appreciable extent within a year from date of shearing.

**Second.** June clipped wool, of substantially the same grade, will, under the same treatment, shrink about six per cent of its original weight within a year.

It is probable that heavy, oily wool will shrink considerably more than this. Wool dealers claim that they can never handle this kind of wool in the early part of the season without sustaining a heavy loss in weight. In planning to hold wool it will be well to take into consideration the kind and condition of the clip, and calculate the probable loss from shrinkage.