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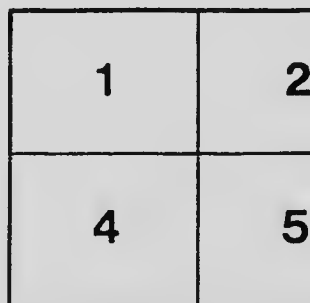
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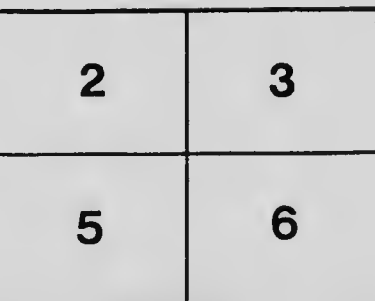
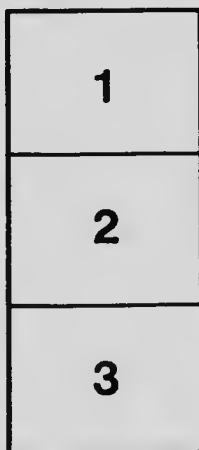
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DOMINION DEPARTMENT OF AGRICULTURE

LIVE STOCK BRANCH

JOHN BRIGHT,  
Commissioner.

H. S. ARKELL,  
Asst. Commissioner.

SHEEP AND GOAT DIVISION

PAMPHLET No. 2

April, 1914

# PREPARING WOOL FOR MARKET

By T. REG. ARKELL

The time for shearing sheep must be regulated by the conditions under which they are maintained. On the ranch it will naturally be later than on the farm, since, in the event of stormy and cold weather, shelter cannot be so readily provided the sheep. April is the real wool harvest month for the small flockholder, and the early part of June for the rancher. Shearing, under any condition, should always be completed before the hot weather commences. Sheep bearing heavy fleeces in summer will not thrive or fatten; and it is truly remarkable to note, at times, the rapid increase in weight they will make, if properly cared for, after the fleece is removed. Feeders for an early market have long recognized this fact, and have made a practice of shearing their wethers in midwinter and confining them in a warm place. By this means they are able to get them in good condition for the Easter market.

Shearing should be done upon a smooth board floor, never on the dirt. It should be the strict aim of the shearer to keep the fleece in as clean a condition as possible. Dung locks and tags must not be included. The fleece should be rolled up compactly from tail to neck with the bright surface outward. If the wool is long, a portion of the neck piece may be twisted tightly to form a rope, and this taken for tying the fleece. However, paper twine is gaining greatly in favor for this purpose and its use is to be commended. Paper twine must not be confused with the sisal or ordinary binder twine, which is most objectionable. Sisal fibres unravel and in a combing fleece will appear

in the top. For similar reasons, the wool should be packed only in closely woven jute, hemp or paper-lined sacks.

Wool, from the time it is clipped, should be kept absolutely dry; nor should the sheep be shorn while wet. It is mistaken shrewdness to attempt to sell damp wool, for the increase in weight due to moisture is a most uncertain quantity and difficult to determine, and the dealer will naturally make, before buying, a sufficient reduction to assure the safe-guarding of his own interests. Besides, dealers who recognize that farmers are making a constant practice of presenting damp wool for sale will soon become most chary of purchasing their wool at all. Such wool, if kept in sacks, will eventually assume a permanent yellowish stain, which limits its use to the manufacture of dark-colored fabrics. Mildew may also attack wet wool in storage, and from this cause the tensile strength of the fibres may be so seriously impaired as to greatly reduce the value of the wool for manufacturing purposes.

Probably one of the worst defects of Canadian wools obtained from sheep raised on the small farm is their dirty condition, due to the presence of excessive quantities of straw and chaff. If the chaff is found only in the neck and belly the damage is not so great, since these can be skirted from the rest of the fleece and used separately. However, not always is it confined to these parts, but is frequently included in the entire fleece. This condition constitutes most undesirable wool, which must be disposed of at a reduced price in the reject class. Since chaff adheres closely to the wool fibres, scouring will not remove it. The manufacturer must further carbonize the wool, that



What should constitute a punishable offense. Sheep Badly Infested with Ticks

is, immerse it in a solution of dilute sulphuric acid, subsequently drying it at a high temperature. The animal fibres of the wool are little, if at all, affected by the acid, but the vegetable matter is completely destroyed. All this should help to show how troublesome dirty wool is to manufacturers and, if sheep raisers expect keen competition in the purchase of their wool or a high price, the preparation of a clean article is absolutely necessary. Moreover, it should always be remembered that the more dirt there is incorporated in a fleece, the higher will be the shrinkage; and wool is bought by the manufacturer entirely upon the basis of the clean or scoured pound.

Another defect, sometimes serious, comprehends the presence in wool of liberal quantities of insoluble oil paint or tar, primarily used in branding the sheep. Scouring will not remove them. Paint locks, therefore, must be cut from the fleece by the sorter in the mill and cannot be used in manufacture, thus representing a complete loss to the consumer. There are proprietary materials upon the market which will give a permanent mark under ordinary weather conditions, and yet scour perfectly in the mill.

Tubwashing, which is still pursued to some extent in Canada, cannot be called a



Defective Cloth showing absence of Sisal Fibres

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commendable practice and justification of it is questionable. Wool in this condition is confined to a very restricted market. Few large manufacturers, either worsted or woolen, care now to handle it, and there is virtually no sale for it in the export trade. If washing is followed at all, it were better done on the sheep's back and the wool sold in that condition. Since tubwashing will easily cause a shrinkage in medium grade wool from 35 to 45 per cent, it will generally be found that, if cost of labor is computed at a reasonable rate, the operation results in a negative gain or financial loss compared with selling in a greasy state. In tubwashing, moreover, the various qualities of the fleece are so badly mixed as absolutely to prevent sorting; which comprises a separation or division of the fleece into lots containing fibres of reasonably uniform length and fineness. This operation is performed in the mill, and each sort may be used for a different purpose in manufacture. Sorting is necessary by reason that a great disparity exists in the quality of wool growing on different parts of the body, The finest wool is on the shoulder; the coarsest, on the thighs; and the shortest, on the belly. To serve as a practical illustration, a medium fleece may be roughly differentiated into five classes or sorts: back, sides and brisket; neck; belly; thighs; and brokes, or short locks and tags.

Wool well prepared, clean and honestly graded, will always find a ready market. It should be the purpose of every sheep raiser to have for sale an article that buyers recognize as possessing high merit, especially so far as cleanliness is concerned. All dealers will eagerly seek it then. Competition will be created and a higher price gained. If wool can be obtained in a sufficiently large quantity, an advantageous price will be still more easily secured. Co-operative sale of the wool will attain this result. Wool sold in this fashion had best be classified or graded, and each grade disposed of separately. The grading consists merely of a division of the fleeces into three or four, or perhaps, if great dissimilarity exists, more lots, according to fineness and length of staple. The very dirty fleeces are thrown into one lot known as "rejects". A carload (20,000 lbs.) of each grade will make it worth while for the manufacturers to bid upon it, and it can be sold directly.

Of course, it must always be remembered that, under conditions of climate and agriculture in Canada, wool does not comprehend the main product from the sheep. Sheep raisers should aim directly towards the production of a first-class mutton animal. Wool, however, must not be neglected, but it should never be the object to produce a fine delicate fleece, rather a medium quality, for always where fineness of fleece is emphasized, mutton characteristics cannot attain the highest perfection. The feature upon which the greatest stress should be placed is cleanliness. Endeavor to keep it clean from such foreign material as straw, burrs and ticks. Dead ticks, if very numerous, are especially objectionable. To obviate their presence, dip the sheep in some good, reliable material twice a year, in the fall before going into winter quarters and in the spring after shearing. Ticks are never helpful friends but always dangerous enemies.



An ordinary Wool Pack for Domestic Use

## DIRECTIONS FOR CARING FOR SHEEP IN ORDER TO PRODUCE A GOOD QUALITY AND CONDITION OF WOOL

- (1) Feed sheep well and regularly. Sheep poorly fed will possess a harsh fleece lacking in oil and frequently with a feeble or weak fibre. This does not constitute desirable wool for sale. Where sheep are starved for a period, the effects will be shown in the wool by a weak section which will break readily and, consequently, cannot be used satisfactorily for combing or worsted purposes.
- (2) Every effort should be taken to keep the wool free from chaff, hay and hurr. This can be avoided by using proper feed racks and care in preventing hay or straw dropping upon the sheep during feeding.
- (3) If sheep are scouring, if possible keep the wool well clipped behind, so as to prevent the formation of heavy dung locks.
- (4) Endeavor to eliminate in breeding operations black sheep from the flock. Mate only sheep possessing pure white wool. Black wool is sold in the reject class.
- (5) In marking sheep, never use oil paint or tar, which are insoluble and will not scour from the wool.
- (6) Sheep should be dipped in some reliable material twice a year, in the fall before entering winter quarters and in the spring after shearing.

## DIRECTIONS FOR PREPARING AND PACKING WOOL

- (1) Shearing should be done on a clean board floor, never on the dirt, and the fleece should be kept as compact as possible.
- (2) Fleeces should be tied with paper twine, never binder or sisal twine. Turn in the sides of the fleece and roll compactly from tail to neck with the bright or clipped surface outward.
- (3) The wool should be packed in very closely woven jute, hemp or paper-lined sacks.
- (4) Tags, dung or stained pieces should never be included with the fleeces, but always packed separately if wool is adhering to them.
- (5) All black or gray fleeces should be packed by themselves.
- (6) Lamb fleeces, possessing unusual quality and length, may well be kept apart from the others and offered for sale as a distinct class.
- (7) The wool should be absolutely dry at shearing and should never, subsequently, be permitted to become wet.
- (8) Tubwashing should not be practised. If washing is followed at all, let it be done on the sheep's back, and at the time of shearing keep the washed separate from the unwashed.



Machine Shearing on a Large Scale



Bales Compressed by Machinery for Export Shipment



