

down the amount and cost of the rations, giving about twenty pounds of hay for a while and some oat straw. The horses have certainly not suffered. Indeed, they have picked up in condition, and are looking quite well. Lately we have been using them for heavy teaming, and have recommenced feeding hay three times a day, but in more moderate quantities. It is easy to waste good hay. A little study of farm rations pays.

LIVE STOCK.

How Wool Is Handled in Canada.

From the report of the Canadian Commission on the sheep industry we quote these suggestive criticisms upon the manner in which wool is handled in Canada. The comments are from the pen of an expert, and should not be disregarded.

From shearing to marketing, no country in the world handles its wool in a worse manner than Canada. As far as the wool of mutton breeds and cross-breeds go, we do not know of any country where it is handled in such an unsatisfactory way and delivered in such bad condition. We regret that we have to make such a severe statement, but we must state the plain, naked truth, and when we have done this, it will be easier to find a remedy for the trouble.

DIRTY FLEECES.

The first thing to be considered is how wool is grown in Canada. With the exception of Vancouver Island and a small portion of the mainland, of British Columbia, where the climate is similar to England, hand-feeding in winter is a problem to be reckoned with in wool-growing. Apart from the well-known fact that the kind of feed has an influence on the wool, there is the trouble which comes from straw, hay, chaff and other vegetable matter getting into the fleece. To avoid this means special care, yet, with the exception of a few farmers with pure-bred flocks, a gross carelessness has been the general rule. When the sheep are ready for shearing in the spring, the fleeces not only contain a large amount of small fragments of their winter feed, but a considerable amount of burrs collected in the fall. This form of carelessness means a serious loss to the farmer, even when the manufacturer is able to successfully remove the foreign matter with special machinery. The increased cost of production must be accounted for, therefore the manufacturer is compelled to pay several cents a pound less for wool in this condition.

LIGHT.

Sufficient light in sheep barns is another thing overlooked. Most of the sheep barns in Canada are old-fashioned, and, as a rule, generally dark, while in some we visited we required a lantern in the forenoon. Insufficient light, added to enforced confinement during the winter, is not only detrimental to the sheep, as most farmers know, but we do not think any of our farmers realize the immense advantages of abundance of light on the fleece.

COBWEBS.

Cobwebs on barn roofs are found all over Canada, and cow barns and sheep barns are particularly bad. No one seems to take any notice of this, yet cobwebs are very injurious to wool. Small bits falling on the fleece or coming in contact with it in any way, clog the circulation of the yolk through the scales of the fibre, and impair the lustre. When dyed a delicate shade, this dullness is very marked. This may seem a trivial thing, but in hot countries, where cobwebs are sometimes found in the rough brush of the sheep range, shepherds are very careful in preventing them from getting on the fleece, and wool-buyers appreciate this precaution.

ROUGH BOARDS.

Very rough boards in sheep barns not only soil the appearance of the fleece, but they would sometimes lead to a loss of two cents a pound on the shearing fleeces in a well-regulated wool market. The first fleece is called "Hogg" wool, and is worth about two cents a pound more than two-shear fleeces, known as "Wether" wool, as will be found fully described in another section of this report. When wool is catalogued for a big sale, the description on each bale is checked before entry. If the description is wrong, it is corrected or entered with the doubtful mark for the convenience of intending buyers at the time of inspection. Now "hogg" wool can only be recognized in the burly and rush, by the characteristic appearance described in a chapter on this subject. When that appearance is absent, the intending buyers, having no time for careful examination and no desire to take any chances, only offer the price of "wether" wool when that lot is put up for sale. Smooth boards, with a surface similar to those in the horse barn, will repay the farmer for the extra cost in one season.

DIPPING.

Dipping is a subject frequently mentioned in this report, and its advantages are referred to so often that any additional remarks here would be superfluous. While we are going over the various faults in handling wool in this country, we merely enumerate them in passing, and emphasize one point. Apart from all its well-known advantages to the sheep, its full value as a wool producer and fleece improver is not comprehended. Before Canada can compete with such countries as New Zealand and Britain in wool-growing, dipping must be done twice a year. In the countries mentioned it is compulsory, but its value as a wool producer is so well recognized that growers could not be induced to cease dipping, even if the compulsory law were suspended. In addition to stimulating the growth of the wool, it imparts a bloom to the fleece which gladdens the eye of the keenly observant and appreciative buyer. He never forgets the bloom, nor the "lofty, springy handle," and looks for that clip again next year. As soon as it is offered he is the first man to open his mouth and the last man to be silent. When these two countries, with their open winters and humid atmosphere, find it so valuable, how much more important must it be in Canada, with its hard winters and dry feeding, not to mention the usual dry atmosphere of summer and early fall.

WASHING.

Washing before shearing is a question which must be held in abeyance, as it depends so much on the demands of the market where the wool is sold. Manufacturers are somewhat divided on this point, because it is very often overdone or underdone, and it is much better left alone than overdone, for all concerned. Wool merchants in other countries are always in favor of washing, and gladly pay the extra price, but it may be found inconvenient to Canada, so that it is better to make a special effort to keep the wool as clean as possible in the meantime and await developments. Washing before shearing is simply done by driving the sheep across a stream, and those with heavy dung tags on the britch require a little extra attention. This should be done about a week before shearing.

The tub washing system of the Maritime Provinces, being chiefly confined to that part of the Dominion, and distinct from the general carelessness farther west, has already been dealt with.

SHEARING.

Having mentioned a few minor points, we now come to shearing, and from this stage many serious faults are to be found. It is here where downright carelessness begins, for which there is no excuse. Shearing in Canada is generally done on dirty floors littered with straw and other refuse. The hand shears are used in most cases, and they are often handled in a most ungainly and destructive fashion, resulting in jagged ridges, "steps and stairs," many "second cuts," and a most uneven staple. When the operation is complete, the fleece is bundled up any old way and tied with a string. The best cord used is dignified with the name of "wool twine," but it is in reality the vilest and most objectionable jute twine imaginable. When this is not used, something worse takes its place, in the shape of sisal binder twine, or any kind of string, and plenty of it, so long as it will hold the fleece together and add to its weight. Dung tags are seldom removed but rolled inside. The fleeces are then stuck in a corner until there is a chance of selling them, when, as a rule, they are thrust into the commonest of jute sacks.

Now, the type of farmer who handles his clip in this fashion is invariably the chief grumbler about the faults of others. He never gets enough for his wool. He talks about the high prices paid in other places for wool "inferior" to his. He will even tell you how much wool it takes to make a suit of clothes, and figure out the intermediate profits. When wool belonging to this class of farmer is scoured, it is usually found to contain many kempy hairs, numerous diseased fibres, a large amount of second cuts, and a serious lack of lustre, and when combed it yields a high percentage of noil. There are other men just as careless as he is, who deliver their wool in the same bad condition, but they are easy-going good fellows who seldom complain, yet feel discouraged with results. The latter type often have well-kept cattle and well-fed hogs, because they have taken hints from the lecturers they have heard in farmers' institutes, but they never heard much about sheep, and nothing practical about wool. "Sheep are a worry, anyway, and their wool doesn't pay for the trouble of shearing," they will tell you. Farmers of this description spoil the value of wool in their district, so that others who have succeeded in breeding excellent sheep and are trying to sell their wool in good condition, cannot obtain the price they deserve.

PACKING.

Our best sheep farmers do not deliver their wool in the condition they ought to, far from it—

but they take a pride in growing a good fleece, and handle their wool as well as they possibly can. If it is not satisfactory, it is not their fault, because they have neither been favored with practical instruction nor encouraging prices. These sheep shear their sheep on clean floors, use machine clippers, wind each fleece in the correct fashion, and tie it with a twisted band of neck wool. This is how it ought to be done. There is no excuse whatever for tying up a fleece with twine or cord of any sort. Nothing but a wool band will be tolerated in any good wool market. This statement applies to the fleece of any of the mutton breeds. Merinos and their crosses are exceptions, because their wool cannot be twisted into a secure band, and a special twine is used for this purpose. Formerly, it was a fine glace cotton cord, but now a new paper twine has taken its place. This new paper twine is the greatest boon ever invented for tying the fleeces of range sheep.

Our Western sheepmen have been in the habit of using a very stout, rough, jute twine, almost a rope, and in some cases binder twine. This has been the cause of considerable loss to them when exporting some "trial" shipments to Liverpool and Glasgow. Buyers of good cross-bred wool would not entertain it at any price, and, after considerable delay, it was sold to manufacturers who use the cheaper kinds of South African wools. Last year they only got 18 cents for it, and were fairly satisfied with that. We ran across some samples of this wool in England, and obtained the opinion of some buyers who spoke favorably of the quality, and valued it at 26 to 28 cents per pound, at prices then ruling, but they objected to it on account of the twine and the sacks. A difference of 8 cents a pound, owing to bad twine and the wrong kind of wool sheets, is very serious. Common jute sacks are used all over Canada, and unless these are discontinued, they will always mean a loss to the growers.

Ontario sheep-breeders handle their wool fairly well for men who have never had any special instructions in packing for a well-organized market. After a few lectures, they might be able to put up their wool in a fit condition for the British market next year. Of course, it would also be necessary to take more care than usual in keeping the fleece free from vegetable matter during the winter months, when the sheep are fed inside. Once their wool is able to take its place on any English market, it will also command British prices at home. The average mixed farmer in Ontario, however, is very careless in handling his wool, and so far has never attempted to keep it in proper condition, like the pure-bred sheep-breeders. It will take two or three seasons of lecturing before his wool could be in the right condition for an auction wool sale.

In the Province of Quebec the farmers still cling to the out-of-date system of "tub-washing," similar to that practiced in the Maritime Provinces, only they scour it and turn it out a little cleaner in most cases. In the Eastern Townships some of the sheep-breeders roll up the individual fleeces in a similar fashion to the Ontario breeders.

MARKETING.

Although the want of practical education was noticed everywhere in our investigation, the need of some organized system of assembling and marketing was even more noticeable. In Great Britain, markets seem to be part of the people's nature, and their present organization is not merely a creation under pressure of necessity, but the evolution and development of an inclination which is always a step in advance of the demands of production. Every little village in England commenced with the erection of a market cross, and so on from open markets to covered markets, market halls and exchanges. Nothing but the confusion and loss resulting through unorganized production, discovers to us the mistake of not having anticipated possible developments and future requirements. Such discovery is usually followed by a period of theories and experiments before any step is taken in the direction of serious forethought and practical methods.

Some may argue that this is the usual drawback of a new country, but this is not the case. In Australia, New Zealand, and even South Africa, market organization not only keeps pace with production, but provides hints for improvement in old countries. As far as the sheep industry is concerned, South America is quite alive to the economic advantages of marketing organization, so that the producer may receive more, without the consumer having to pay more. In Australia and New Zealand the early settlers contained a healthy sprinkling of business men, with administrative ability and forethought. This accounts for their superiority in marketing organization and municipal government.

Farmers still cling to the out-of-date idea that woolen mills ought to be planted all over the country like flour mills. This was frequently suggested to us at our meetings, and we must remind them that small, isolated concerns, hampered with