

Sheep and Intensive Farming.

During recent years the price of wool and mutton has made sheep farming more profitable than it was heretofore, and has resulted in sheep being kept on more farms. However, there is need for a greater sheep population in Canada, and this need can only be met by more sheep being kept where mixed farming is carried on. The following paragraphs by F. R. Marshall in charge of sheep and goat investigations, Bureau of Animal Industry, United States, which appeared in the U. S. Department of Agriculture Year Book, deals with some of the obstacles encountered in keeping sheep where intensive farming is practiced, and shows how these may be overcome:

"The sheep industry of the United States is in a stage of transition. In most of the western range States the number and size of flocks continue to decline. In the farm States there is a distinct trend toward the more general production of wool and mutton. The net result for the country as a whole in 1917 is reported to have been an increase of 2 per cent. over that of 1916. This movement, though accentuated by war conditions and prices, did not originate with the war. It had its beginning much earlier and may be expected to continue after peace is restored. The full significance of this movement is not generally appreciated. It has been either actively discouraged or misunderstood by certain agricultural authorities who seem to believe that the passing of the sheep industry of the Eastern States in early times finally disposed of the question of the economic place of sheep in intensive farming. It is believed that the analysis of the situation which follows will show that this view is erroneous and unfortunate in respect to the development of opinion as to the best practices for the most effective and economical use of the land in the immediate future and in the period following the war.

"It may seem strange that after more than a century of sheep raising in the United States the relationships of that branch of agriculture are still the subject of discussion, while beef cattle, dairy cattle, and swine have mainly found their permanent locations and profitable extent of development in relation to other lines of agriculture. The divergence of opinion arises mainly from a failure to distinguish between sheep kept chiefly for wool production in newer parts of the world and in the Eastern States prior to 1880, and the other type of sheep husbandry that regards mutton and lamb production co-equally with wool, exemplified on the farms of Great Britain.

"The frequently repeated statement that the decline of farm sheep raising, that occurred decades ago, is proof that the industry cannot have a place in modern intensive farming has mainly gone unchallenged. The fact is that there is very little resemblance between the former business of growing wool and the present rapidly developing business of keeping sheep for the economical production of meat as well as wool. The type of sheep raising now engaging the interest of farmers is essentially new. It has never been tested in a large way in the United States, and has never been abandoned anywhere when once established.

"Federal statistics show a decline of 8 per cent. in the number of sheep kept in the United States between 1910 and 1917. To a considerable extent this decline is due to the abandonment of keeping wethers. When wool was the most important product, large numbers of wethers were kept, sometimes until four or five years old. With higher market values for lambs, wethers have been largely discarded and ewes put in their places. The ewes produce practically the same quantity of wool as the wethers and a crop of lambs each year, equal to about 80 per cent. of their number. The decrease in meat production therefore has not been so great as might be supposed. The number of sheep (including lambs) slaughtered in 1915 was 14 per cent. less than in 1914, and in 1916 the number was 8 per cent. less than in 1915. This was due to the fact that the settlement of the range had made it necessary for many western sheep owners to dispose of their flocks, which swelled market receipts for a time, but diminished the number of ewes to produce lambs later on.

"In the former period of the farm rearing of sheep mainly for their wool, mutton was very lightly esteemed as an article of diet. Lamb, as we know it, was not offered for sale. Other meats were abundant, cheaply produced and retailed at low price. The general and continuing upward trend of beef and pork values diverted attention to the then cheaper mutton and lamb. When once understood, these meats, particularly lamb, came into favor and, though now selling higher than other meats, are in strong demand because of their taste and flavor and also because of the special economy of their use by small families and by city residents in general, who compose the majority of the patrons of our butcher shops and markets. This condition in conjunction with the peculiar economy in the production of lamb, gives to the sheep as a meat-producing animal an assured position in the more nearly stable plan of operations rapidly being adopted on American farms. In this, as in the cattle industry, the farmer's security is due to the removal of danger of unequal competition of cheaper lands in Western States. The lessened difference in acreage value of range and farm lands and the much greater feed-producing capacity of the latter, puts the business of live-stock production on a basis where the margin of profits depends mainly upon the skill and business ability of the producer.

Farm Production of Wool.

"Students of world wool-trade conditions are convinced that future wool supplies must come quite largely from farm flocks. At present the bulk of the world's wool supply comes from sheep kept on the agricultural frontiers. The flocks of Australia and South Africa are maintained primarily for wool production. The fine-wool type of sheep has been the forerunner of agriculture in the drier and in the new areas of all countries. The mutton sheep comes in at the other end of the gamut as a necessary instrument in highly-intensive and self-supporting agriculture. In our own range States, in New Zealand, and in South America the better parts of the pastoral areas are now devoted to the production of both wool and mutton from what is broadly called the "cross-bred" type of sheep.

"The range areas of the United States, Australia and South America have steadily been encroached upon by closer settlement and the use of the lands for grain growing. While these same lands, or such of them as are found continuously profitable for farming purposes, will eventually evolve into a system of raising live stock, there will be a long interval of lessened production of meat and wool. This might be compensated for by the production of still newer areas, but the primitive conditions still existing in the unproductive parts of Asia and the equatorial regions at best give no promise of the addition of new wool-yielding areas for a very long time. Since the supplies cannot be maintained from new sources, the only opportunity remains in increasing the output of present sources of supply. A smaller and diminishing margin between supply and consumption of wool seems inevitable. It is not possible to see how this tendency can fail to cause a new level of values for wool unless civilian consumption is very greatly curtailed. Since very little of the actual requirements for wool can be satisfied with substitutes the only alternative lies in the maintenance of a level

Economic Phases of Sheep Raising.

"In addition to the great need of increased production of meat and wool and the development resulting from the operation of higher values, the raising of sheep has a new appeal to older farming areas as a result of alterations in feed values and the scarcity of farm labor. The major factor in determining the cost of other animal products is the value of grain or millfeeds. Pasture and roughage are important, but both beef and pork require a very considerable use of concentrated feeds for the finished animal that is most profitable when sold for slaughter. The most valuable carcasses of lamb and mutton require a very much smaller proportion of fat and therefore a smaller use of grains than is required in other meat animals. In the case of lamb, which is much more popular than mutton, a majority of the animals are marketed at the time of weaning and without having any feed other than milk of their dams and a slight amount of grazing. The lambs raised in areas incapable of producing a good milk flow in the ewes, and which, therefore, go to fattening yards, consume considerable grain, but their finish is largely produced from hay and other roughages of comparatively lower value.

"With breeding ewes, as with mature females of other classes of live stock, the free use of grain is not needed when good roughages are furnished. Fleeces of good weight and quality can be produced without the use of concentrated feeds.

"The other prominent economic advantage of sheep raising is in the comparatively small demand it makes upon farm labor. The labor cost per dollar's worth of wool or lambs is lower than in any other farm-animal product. This factor had a noticeable effect in 1917 upon farmers' attitude toward sheep raising, and may be expected to be more appreciated in the future. In the past injury has been done by advocating sheep raising on the ground that no labor or attention is needed and farms are cleared

of weeds. So far as their appetite for weeds is concerned, the sheep may be regarded to some extent as scavengers. They will eat most weeds, and on any farm will greatly reduce the amount of hand labor needed to hold in check the areas of pasture and grain fields. Many rougher, permanent grass pastures that require mowing can be kept clean by the use of sheep, while at the same time the cattle-carrying capacity of the pasture is increased. It is a mistake, however, to encourage or advocate the raising of sheep by people whose main interest is in weed control. While the labor required by sheep raising is continuous, it is not heavy, and, if properly supervised and made interesting by financial return, can well be performed by boys incapable of other kinds of farm labor. Constant attention and careful observation are necessary to maintain thrift in flocks of practical commercial size.

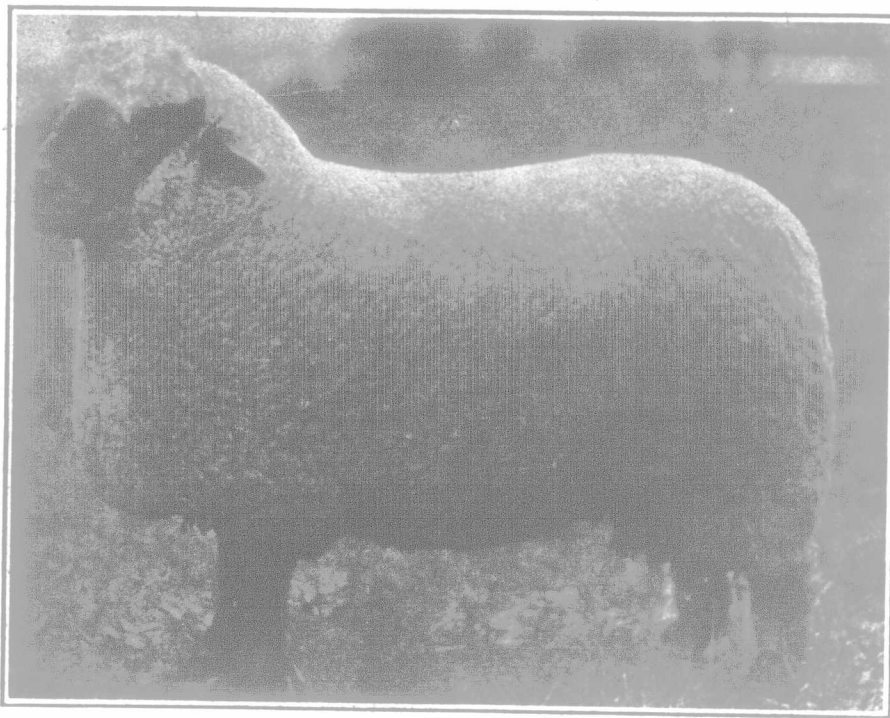
"One competent, experienced man can care for from 300 to 500 ewes during winter. Extra help will be needed at lambing and shearing time, but unless the forage rotation plan is followed, the full time of the shepherd will not be needed for the flock in summer.

Obstacles to Expansion.

"The first and greatest obstacle to an adequate increase in the size and number of farm flocks has been removed in the restoration of equal competition with other areas and in the improved prospect of continued higher values for wool and lambs. Owners of farms can now safely develop flocks to the size suggested by the character of their land, existing marketing facilities and available labor without hindrance to logical development such as formerly existed in disproportionate prices for different classes of animals and other farm products.

"A second obstacle to a quick increase lies in the fact that comparatively few farmers are as well qualified to care for sheep as for other classes of stock. The management of mutton sheep does not differ altogether from that of the former wool flocks, but the majority of farmers have had no experience in caring for sheep. The systems of management for quickest returns, continued health, and maximum profits under different types of farm conditions are not well understood, nor have they been determined by experiment stations in any such way as has been done for other classes of stock.

"This obstacle is a temporary one. The needs and habits of sheep differ widely from those of horses, cattle, and swine, but present no problems that will not be met by interested study and observation supported by



Oxford Down Ram.

Champion at the western shows this year. Owned by E. Barbour, Hillsburg, Ont.

of values to justify an increase in wool production in present range or farm sections.

"As was suggested, the range product has been declining in all countries except South Africa and New Zealand. A portion of this decline in range production in the United States may be offset by improved methods and the revision of State or national attitudes on public land policies, but it is probable that much more of the wholly unimproved lands now used for grazing will be settled before a condition is reached under which each type of land is employed in the most economical way. The strong probability of an early increase of supplies of wool from the present principal sources indicates the continuing importance of wool as a source of income from flocks previously kept for meat production. The British breeds of sheep amply demonstrate the possibility of obtaining large yields of wool and meat from the same animals, and with both commodities in strong demand the commercial flocks of the future will develop still further upon a wool and mutton basis.

"The United States is still a large importer of wool. Her meat consumption, in normal times, equals production. Her farms contain much unproductive land, and the earlier rush westward left many large areas undeveloped. It seems certain that the new order of affairs will result in the increased production of live stock, particularly sheep, on the larger areas of idle lands in the Appalachian, Great Lakes, and South Atlantic regions. The still more intensive use of land in farms, and effort to secure the most economical use of every acre, every facility, and all available labor, will necessitate the general inclusion of sheep in our system of mixed farming and live-stock production.