list of his township or county fair, and, if he has a good individual animal that is eligible to enter any of the classes, commence preparing it for the show this fall. If the man does his best in fitting and caring for the stock, he has nothing to be ashamed of if he does not win. All entries cannot stand at the top of the line-up; there must be a loser, and the man who takes a defeat graciously and finds out wherein his animals failed to compare favorably with other entries will, no doubt, come back to the fair stronger than ever in the following years.

The watchful experienced eye of the herdsman counts for a good deal when fitting an animal. It is a study to learn how to get the depth of flesh, mellow skin and glossy hair on the beef cattle. This cannot all be secured with one feed, but requires a combination of feeds. Plenty of grooming and rubbing adds lustre to the outward appearance. No detail should be overlooked that would make the animal more attractive to the judge. Size for the age is important, but any degree of roughness in the entry is a handicap. The animals should be well fleshed, and there is a good deal in the individuality of that animal as to whether or not the flesh will be laid on smoothly or patchy. Such feeds as good clover or alfalfa hay to supplement pasture, and concentrates, such as oats, bran and oil cake, will be found very acceptable to the animal. Roots and silage are also excellent feeds for putting cattle in show-ring fit. Overfeeding is a serious mistake, consequently the herdsman must use his judgment.

Washing and combing improve the condition of the skin and quality of the hair, and using the brush adds gloss. Use of sandpaper will improve the appearance of the horns, and rubbing them with flannel cloth and a little oil will add a polish. Exercise and training are essential in preparing the stock for the show-ring. An animal that will not stand cannot be properly compared with other entries. At too many of the local fairs the cattle are not even halter-broken, but are turned loose into a yard and the judge must pick his way through a bunch of cattle of different ages, in order to make comparisons for the animals in any one class. This does not give the judge an opportunity to do his work, and it is a reflection on the management of the fair that he should be called upon to labor under such a handicap.

Hogs do not require as much fitting as cattle and sheep. True, they should be in fair flesh, and careful feeding is necessary so as to keep them thrifty and yet not throw them off their feed. Strong, heating feeds should be avoided, unless in combination with green feed or roots. Finely-ground oats and middlings, with skim-milk, make a very good ration for hogs up to four months of age. If a paddock containing clover or rape is available, it will make a splendid run for the show herd. Care should be taken to always keep within the appetite of the hog. When selecting the show herd, uniformity in size and conformation should be considered. Exercise is very essential and if the hog does not take exercise of its own accord he should be driven around for a certain length of time each day, as this tends to strengthen the legs and pasterns and as a result the body is carried more gracefully. Washing the hog occasionally helps to put the skin in good condition. It removes the scurfiness and makes the skin soft and the hair silky.

As a rule the hog is a stubborn animal, but by exercising patience it is possible to train him so that he will be on his good behaviour in the show-ring. It is well to take each individual entry and practice having it stand correctly. If this is done several times the hog will undoubtedly stand to better advantage on show day than if training of this nature had not been done.

Many choice sheep have been placed low in the line because of failure on the part of the shepherd to fit them properly and then exhibit them to advantage. As with the other breeds of stock, breeding counts for a good deal. The show flock should be made up of individuals that are typey, of good breed conformation, smooth, thrifty and well balanced, with no pronounced defects showing. Care must be taken in fitting so that the body will be filled out with flesh and not tallow, and that the wool fibre will have a lustre and the skin the proper tint. Oats, bran and oil cake, with clover or alfalfa hay and cabbage, rape or kale, will serve to make an ideal ration for sheep.

The appearance of the sheep can be improved a good deal by trimming the fleece. This is an art and is only acquired through practice. The shepherd who does the work must have in his mind's eye the picture of a perfect specimen of the breed, so that he may have the animal on which he is working conform as nearly as possible to that type. Training is necessary and exercise will develop muscles which are slightly weak so that the animal may stand properly on its feet while the judge is doing his work.

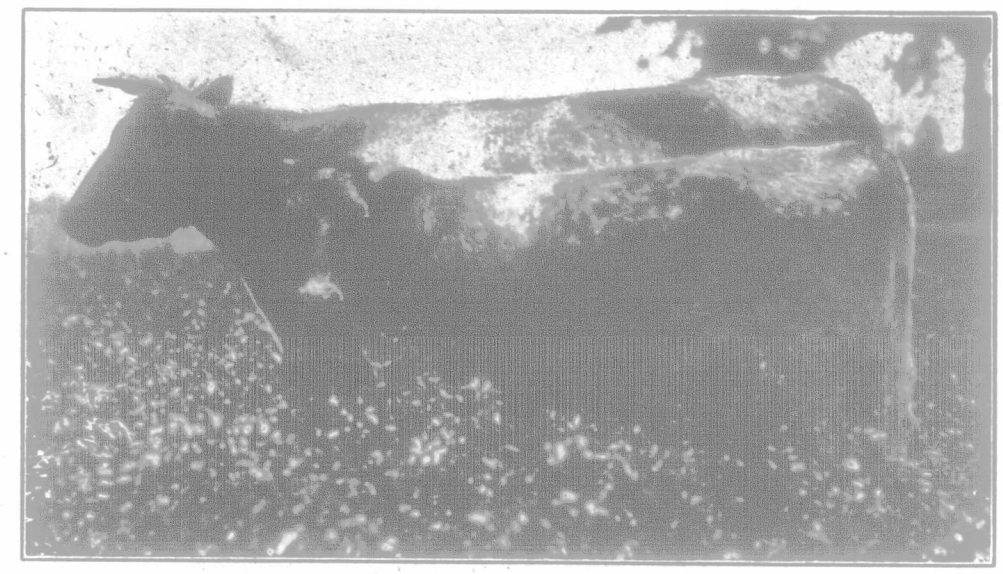
With all classes of stock slight weaknesses or defects may be obliterated or largely concealed by exercise and training beforehand, and also by having the animal pose in the show-ring. It may require considerable practice to get the animal to stand as you would like, but all our domestic animals are susceptible to training, and if the herdsman or shepherd has time and patience enough he can train the animal to stand as he wants it to. The value of training is in evidence in every show-ring. The entries from some herds will come into the ring and stand just so, paying no attention to the visitors on the ring-side; other entries will be restless, continually moving about, and seldom standing to the best advantage. Judging is a matter of comparison of the animals as they stand in the ring, consequently the herdsman should do all he can to have his entry appear at its best.

Good Experiments With Live Stock to be Conducted at the O. A. C.

At whatever work a person is engaged it is essential to success that a well-defined plan of procedure be mapped out and followed as closely as circumstances and conditions will permit. At a meeting of the Agricultural Representatives, recently held at the Ontario Agricultural College, Prof. Toole, head of the Animal Husbandry Department at the College, presented an outline of some of the work he had in mind for his Department, and we believe that all live-stock men will concur with his plans, as the work in mind should give valuable information to them and be of great benefit to students at this great institution of agricultural learning.

Testing for tuberculosis in cattle has been done regularly, and reactors have been found in the College herd. These have been isolated and cared for by herdsmen other than those looking after the main herd; however, the barns being in close proximity there wss always great danger of this infectious disease spreading. The beef herd is clean and it has been decided upon and approved by the Minister of Agriculture to dispose of the reactors in the dairy herd and remove what has for some time been known as the T. B. barns.

As accommodation is not sufficient at the College for constructive breeding of every breed of stock the small herd of milking Shorthorns is being transferred to the Government farm at Monteith, where a very good herd has already been established. It is generally recognized among breeders that the College Shorthorn herd composed of such fashionable families as Augustas, Lavenders and Roan Ladys is as good as any in the Province, but as the Hereford and Angus breeds are not as well represented either in numbers and quality as they might be, it is in the best interests of the institution that four or five choice females of both breeds be purchased as the foundation for a herd of each breed.



Beach Ridge Lovely and Her Heifer Calf.
Feeding on sweet clover on Weldwood Farm, near London, Ont.

Owing to the danger of bringing infection to the beef barn by the purchase of steers for fattening, Prof. Toole has the following experiment in mind: To purchase at the end of July, 15 young calves, three pure-breds (steers), three cross-breds, three grades by pure-bred sires, three dairy-bred calves (pure), three scrub beef calves, keep account of all expenses in raising, stable and feed all alike, keep monthly records of individual gains and cost of same up to the time they are two years old. The idea is to market each lot at the same time on the Toronto market, and arrange to follow the carcasses to the packing house in order that the relative value may be determined. An experiment on a similar basis is proposed to be started next year so that the College will have a stable of feeders coming on each year. The object of the experiment is to prove or disprove the value of breeding in beef production, to prove or disprove that beef type is a factor in the economics of beef production; to prove the value of the pure-bred sire in beef production; to show relative costs of producing beef from beef calves, dairy calves and scrub calves; to get figures on the cost of raising calves to weaning age, and the gains made by different types under similar conditions; to get material for class-room work, and to increase the output of beef from the farm at least cost.

Extensive experiments with sheep were also outlined. As there has been more or less difficulty in keeping the College flock healthy, it has been decided to make a sheep run on the highest part of the farm and follow a rotation of crops for sheep pasturing. Constructive breeding is to be carried on with one long-wooled and one short-wooled breed, and then keep several specimens of the other breeds for class-room work and to show breed type and conformation to students and visitors. Some feeding experiments are also planned. The idea is to purchase 24 thin lambs on the Toronto market late in September, eight to be wethers, eight ewes and eight bucks. These are to be run in three lots and fed on the same class of feed, keeping accurate individual weights of the lot every week. When the lambs are finished they will be marketed on the Toronto market at the highest price obtainable, and if possible the carcasses will be followed to the packing-house in order to make further study. An experiment of this kind followed up will prove or disprove the statement that it pays to finish lambs, and also that buck lambs for feeding purposes should be castrated. It will also show relative gains in wether, ewe and buck lambs and will give some conception of the spread in price necessary on each group to make it pay to finish lambs. Records of gains in lambs on certain feed will also be determined.

For the benefit of students and visitors to the institution a special wool exhibit is being fitted up in the basement of the Animal Husbandry building.

The intention of the Department is to keep the Yorkshire and Berkshire herds of hogs for breeding purposes, and then have representatives of the other breeds for class-room work and to show type. Experiments will be conducted to show value of pasture for pig feeding. In order that good work may be done a new piggery is long past due. It is not fair to the students nor to the institution that work be carried on in the class of hog-pen now at the College. An up-to-date piggery is an immediate necessity.

While the College owns four teams of choice Clydesdale mares of varying ages, no colts have been raised of recent years. On the average farm a mare or two is bred each year, and they are called upon to do a portion of the farm work besides raising a foal. Why should not the same thing be done on the College farm? Prof. Toole has had a number of mares bred, but the horse barn does not afford sufficient accommodation for raising many colts, consequently, it is to the interests of the institution to have a new horse barn erected.

The head of the Animal Husbandry Department expressed his desire of having at least one Percheron team at the College, and of keeping the best draft stallion available for use on the College mares and for the benefit of the breeders of the community. A new judging pavilion with a slaughter house attached is considered a necessity if the students are to get the most out of their course. Boys who leave the College halls to go back to the farm or to go on professional work should have some experience in slaughtering animals and cutting up the carcasses.

Exceptionally good work has been done by the Animal Husbandry Department of the College, but at present the herds and flocks are somewhat depleted, and some of the breeds are not well enough represented to enable the staff to do their duty by the students.

The experiments and other plans mentioned by Prof. Toole are in order, and we believe them to the best interests of Canada's greatest agricultural institution. The College is looked to for advice and service, but this cannot be furnished in the highest degree unless proper equipment be supplied. The constructive policy outlined by Prof. Toole should meet with the approval of live-stock men and agriculturists as a whole. Money is required to do this work, and a generous appropiation should be made available immediately in order that the experiments be gotten under way with the least possible delay.

The Government cannot afford to permit this institution to fall back in its service to the country for lack of funds to carry on constructive work. Ontario is an agricultural Province, and the College is depended upon to give the latest and best methods in crop production, handling crops, the feeding of stock, combating animal and plant diseases, etc. Experimental and constructive work in the various Departments is necessary if the College is to hold the enviable reputation it has attained the world over.

Barley Smut Poisoning in Cattle.

BY PROF. WADE TOOLE, O. A. C.

In view of the fact that annual pastures mixtures are now quite commonly used in Ontario and that barley forms a part of many of these mixtures it might be well to sound a note of warning regarding smut in this feed. In some fields smut of barley is very prevalent this year and if the barley is headed out there is danger of smut poisoning in the cattle. The symptoms of the disease are rather vague. Cattle may scour, become weak on their legs, and finally go down with what appears to be paralysis, death ensuing very suddenly from spasm of the pharynx and smothering. The poison affects the nervous system and the heart as well. Cattle go down and cannot rise. Evidently the smut is more dangerous with cows about to calve or immediately following calving. Anyone having cows on annual pasture containing barley heading out and in which there is considerable smut should take them off to avoid danger of loss. There is little danger where the pasture is cropped off to such an extent that few or no heads appear. After a heavy rain which would wash all the smut away so that the leaves of the grain were free from it cattle could be returned to the pasture in safety.