

even lot, more noticeable for the excellence of their heads and their quality than for anything else. The cows with the bull calves were in another field and here I found the same class of cows and a number of very promising calves. The herd has had a very successful year with their calves. In another field I saw the heifer calf *Evmonda 2nd*, the progeny of the McGregor cow. All the calves were sired by the stock bulls *Matador* of *Bywell*, *Mondella* and *Planet*.

At *Craigie Mains*, *Jas. Kilpatrick's* stud, I found only a few of the stallions at home. *Bonnie Buchlyvie*, his 5000-guinea horse, is looking exceptionally well and he is getting a very heavy season. No doubt he is competing more strongly with *Footprint* for the best of the mares than any other horse has done for some time. In one pasture field alone there were 21 mares and foals, in another nine, in another five and in still another seven. All of these mares were there to be bred to *Bonnie Buchlyvie*, at £15 down and £15 when mare proves in foal.

Another good horse, *Craigie Hall Mark*, a get of *Bonnie Buchlyvie*, is travelling the central Ayrshire district, which is considered one of the best in Scotland. Mr. Kilpatrick's best colt is a get of *Baron* of *Buchlyvie*, two years of age, and was good enough to win the *Glasgow show* last March. He is very clean of limb with silky feather and beautiful carriage and action.

The mares that I saw were a varied lot, and naturally some of them were rather thin running with the foals. Most of them, however, were of a good size and showed more body than the horses. There were several exceptionally good mares among them, one or two *Cawdor* winners. The foals were as varied as the mares—some poor, some very good and most of them good. In the pastures we visited there were foals from *Footprint*, *Bonnie Buchlyvie*, *Drumcross Radiant*, *Apukwa*, *Revelanta*, and a goodly number of other prominent breeding horses in Scotland.

At *Dunure Mains* I found *William Dunlop* at home, and we had a long walk out among the cattle and horses, for although Mr. Dunlop is famous for his horses, he has a good many cattle about the farm, and he knows a good thrifty bullock as well as a straight moving *Clyde*.

Dunure Footprint gets all the mares that he can handle at £25 down and £25 when the mare proves in foal. He is looking as well as ever and is certainly a remarkable breeder. The old horse, *Auchenflower*, was on the road, as was *Dunure Kaleidoscope* by *Baron* of *Buchlyvie*, three years old, possibly Mr. Dunlop's best horse. Most of his other horses were also on the road. In the paddocks, however, we saw five colts, two yearlings and three two-year-olds, all got by *Footprint*. They were good colts, but *Dunure Earnest*, out of *Harviestoun Pyhllis*, *Earnest Kerr's* good mare, was decidedly the best. *Clydesdale* men will remember that this mare is out of *Chester Princess*, and got by *Royal Favourite*, both winners of the *Cawdor* cup, and the mare herself also achieved that honor, from which one can see that the *Dunure Earnest* colt has all the breeding necessary to make him a winner. He is easily the best colt that I have seen on this visit and we shall certainly hear more about him if the war discontinues in the next two years. He was not shown at *Glasgow* last spring so he has not met Mr. Kilpatrick's winner at that show.

Mr. Dunlop's good mare *Dunure Chosen* had not foaled yet, but the best foal that I saw in the Ayr district was a *Footprint* out of *Sarcelle*, one of the mares that *Dunure Mains* was showing two years ago.

The leading breeders show a decided preference for the medium sized better quality horses. As one old Scotchman put it, "We like them like a young lady, neat about the waist and thin about the ankles."

I also paid a visit to the *Knockdon* farm owned by Mr. Cross, of *Glasgow*. This is essentially a dairy and sheep farm, where he keeps *Ayrshires* and *Border Leicesters*, but he also has some good, thick, quality *Clydesdale* mares and some foals from *Footprint*, *Bonnie Buchlyvie*, *Keynote* and one or two others that would do credit to any stud.

The *Ayrshire* herd consists of about 70 head of cows besides young stuff and calves. This herd is really the pride of the farm. He has a number of very fine looking cows with large well-developed udders and he has bred a number of winners of the *Ayrshire Derby*.

The dairy barns are built of stone with concrete floors, fire clay troughs and chain stanchions. They are very

well lighted and ventilated, and I should have said that a milking machine is installed in both barns and is at present giving excellent service.

The dairymen over here are gradually commencing to pay greater attention to the keeping of records, but they are still behind Canadian and American herds in that respect. The *Knockdon* farm for instance, is not keeping records of the cows' performance.

I visited a number of smaller herds of *Ayrshires* and saw some very excellent animals and met a good many friends of *Robert Ness*. Many asked if I knew him. At some of these places they kept records and at some they didn't. One man spoke enthusiastically of a cow that gave 1260 gallons, and he had a good herd for they would average him 900. I mentioned the cow *Auchenbrain Brown Kate 4th*, the cow that made a record of something over 23,000 pounds in America. He said he knew the cow, but he seemed to consider the record a bit doubtful.

Now I come to the most interesting part of my observations in live stock circles about Ayr. On Tuesday, June 12, I visited the weekly market and saw cattle of all classes sold under the hammer. In one ring grade *Ayrshire* cows were being sold, most of them small in size, but some very smooth, tidy, useful looking cows were offered and were being bought eagerly at from £30 to £36 or from about \$146 to \$171. I walked through the doorway to the other ring and saw rough thin cows that we would call canners selling quite quickly at good prices. Occasionally a cow in reasonably good condition would walk into the ring and I watched two of these tip the scale at 11 cwt. (1232 pounds) each and sell for £39 (or \$190) each. Later in the day, good fat steers were sold and I watched a number, all weighing about 12 cwt. (1344 pounds) pass through the ring. The first bid on these steers was £55 (\$267) and they sold for from £60 (\$292) to £67 (\$326), and I have scarcely ever seen bidding so brisk. The steer that brought £67 weighed just 12 cwt. (1344 pounds), and if you figure that out you will see that it is just about 24 cents per pound. Can we wonder that living is high?

One can easily see eye to eye with the farmer who objects to plowing his grass land when live stock is bringing prices such as I have mentioned. He knows he will keep his land in a more productive state and at the same time make more money. At least, a number of Scottish farmers admit that they are making money.

THE FARM.

Guard Against Attacks of the Hessian Fly.

In certain sections of the country the Hessian fly is reported to have done considerable damage this year. Most wheat growers are familiar with the work of this fly. The principal damage is done in the fall but eggs laid in late spring produce maggots which destroy many of the plants. This fall every precaution should be taken to guard against attacks of this destructive insect. The Hessian fly is a two-winged insect, about one-tenth of an inch long. The adult flies lay their eggs during May and June in the groove on the upper surface of the leaves of fall or spring wheat. After a few days maggots hatch out and work their way down between the stem and leaf to the middle joint, where they remain until nearly full grown. They suck the juice out of the plant, causing it to become weak and to break off at the first or second joint before the grain is mature. When the maggots are full grown they change to a dark brown, which is known as the flaxseed stage on account of its resemblance to flax seed. When the crop is harvested many of these flax seeds will be in the straw, although most of them will be left in the stubble. Late in August or early in September full-grown, winged flies emerge from these flax seeds, which proceed to lay their eggs on the young and tender fall wheat plants. When these eggs hatch, the young maggots work their way down to the crown of the plants and do much damage before winter sets in. The work of this maggot in the wheat field is indicated by the sickly appearance of the plants. The insect winters over in the flax-seed stage.

Care should be taken to burn refuse from the threshing machine which might contain the flax seeds. After-harvest cultivation will also destroy many which remain in the stubble. As the eggs are laid early in September

it has been found that a strip of wheat sown the latter part of August will attract many of the flies and the eggs which they lay will be destroyed later when this strip is plowed under. Instead of sowing fall wheat the end of August, there will be less risk of injury by the Hessian fly if seeding is delayed until about the middle of September or until after the egg-laying period. If the soil is well prepared so as to produce rapid growth, fall wheat may safely be sown at the time mentioned, in most parts of Ontario. By selecting good, plump seed a sturdier plant will be produced than if the seed is somewhat shriveled.

Use Formalin on the Seed Wheat.

Every year smut exacts rather a heavy toll. Instead of a plump grain of wheat to be manufactured into bread, there is sometimes a round ball of stinking smut, or bunt, produced instead. A little of this bunt in the crop lessens the value of the grain for milling purposes, consequently this fungus not only decreases the yield of wheat but injures the value of the good grain produced along with it. Smut may not have been bad this year in your particular field, but that is no guarantee that you will be immune from attacks next year; therefore as a precaution against loss, it is advisable to treat the seed wheat to destroy the smut spores. Formalin is the material used, and the success of the treatment will depend upon having the solution of proper strength and in having every kernel covered with the material. One pint of formalin to forty gallons of water is the strength which has given results, whether the grain is immersed or sprinkled. The immersion method is claimed to be a little more effective than the sprinkling system, but the disadvantage is that it takes a longer time to apply it. If care is taken to thoroughly sprinkle and turn the grain, very few smut spores, if any, will escape. Whichever method is used, the grain must be dried immediately after treatment so that it will run through the seed drill. It should not be treated long before sowing, as a little dampness will cause germination to start. Where the grain must be held for a day or two after treating, it should be left spread out rather than bagged up.

Some claim that when sprinkling they prefer a solution of one to thirty, rather than one to forty. The grain is placed on a clean floor and the solution may be applied with a watering can and the grain shovelled to cause dampening of all the kernels. The grain may then be covered with sacking and left for three or four hours, after which it should be spread out to dry. Care should be taken that the seed does not become re-infected by coming in contact with smut spores on the bags or drill.

Whichever method of treating seed for smut is followed, it is well to take precautions against leaving the damp grain in a pile or bags too long. We have known of several cases where wheat treated for smut did not grow. On making enquiries it was found that the treated seed had been bagged ready for the field, but a rain had prevented sowing for a couple of days. It was evident that the warm weather, together with the dampness on the grain caused it to heat sufficiently to destroy germination. Leave the grain spread out on the floor until ready for sowing, when the immersion or sprinkling system is used.

It is sometimes difficult to secure good wheat for seed as many do not thresh until after fall wheat seeding. Endeavor to secure large, plump kernels that are free from chaff. We know the difficulty of separating chaff from wheat by use of the ordinary fanning mill. However by using the proper screen a good deal of this weed seed can be removed. Proper soil preparation is essential to a good crop. Wheat is a plant which responds to added plant food. It very often shows good results from an application of commercial fertilizer, or a small application of barnyard manure. Some still follow the practice of plowing under the manure for wheat; we prefer top dressing and believe in applying a light coat frequently rather than a heavy coat at long intervals. Six loads to the acre, applied with the manure spreader and cultivated in, has given remarkable results. In one field which came under our notice a ridge left without this light application was practically a failure while the rest of the field averaged around thirty bushels to the acre. A good seed bed is as essential for the wheat crop as it is for spring-sown grains.

Canada's Young Farmers and Future Leaders.

Don't Give Up—Do Your Best.

EDITOR "THE FARMER'S ADVOCATE":

A student's letter in the department of "The Farmer's Advocate" devoted to "Canada's Young Farmers and Future Leaders" August 2 issue interested me very much. As regards the student's remarks about the farmer in the latter part of his letter, in them lie one of the greatest secrets of a farmer's success. I would like every farmer to read, learn and inwardly digest them. The intelligent farmer of the future must realize that if he desires efficiency he must treat his hired man as a human being with a mind, and not as an animal. The real reason I write to you is because, having been through part of the mill, I would like to give some points which I have learned for the benefit of the hired man.

In the past I was ordered about and found fault with on every possible occasion and often was sneered at. I was doing my best to please my employer but it seemed

impossible and I was nearly at my wits' end, often making mistakes through sheer mental pain from the way I was treated. Then one day my chance came. It was a wet afternoon and the only work to be done was something under shelter. I had never done this work before. I timidly offered to help, but he immediately said it was impossible for me to do it, and that I had better go and read a paper. The first thought that had held me back on so many occasions, was that I might displease him if I persisted in having a try. I started to turn away as usual, but in a flash my eyes were opened and I saw what a coward I was so I turned back and started to have a try amidst sneers. The next day I was asked to continue the work; I had succeeded. Success gave me new life. This happened about a year ago and this past year has taught me much.

Mr. hired man, let this be the basis on which you do your work for the employer. Don't work to please or displease but put your whole heart into doing your

best under the circumstances. Don't work for the hope of praise or with the fear of blame. Your reward is that you have done your job well. If it does not turn out good, but you know you did your best under the circumstances then you should not be blamed too severely; if you did not do your best then you deserve the blame—take it like a man and let it be a lesson to you to try and do your best next time. Don't allow the employer to tell you you cannot do a thing unless he gives you a decent trial, but at the same time remember not to experiment with anything that may cause him considerable loss or damage.

Don't work for the welfare of the individual, work for the welfare of the farm; let the highest general efficiency you know of or can learn be your watchword in all your work. Seek for the best way and you must find it according to circumstances. Get to the truth. Don't think that manual work is degrading; taken in the right spirit it is the opposite, it is the finest school