

the temperature of the air and of the soil be sufficiently high, there is no doubt but what early sowing will be advantageous to the crop. As a rule a larger yield of grain and a better sample can be obtained by early sowing than by late sowing. Usually in late sowing a larger bulk of straw is obtained, but the straw is very much weaker than from early sowing, the grain inferior, and the yield deficient. The reason for this is that the plant has not sufficient time to mature before the ripening season comes on, whereas with early sowing the plant has every opportunity to develop, and if conditions are favorable returns will be much surer.

However, farmers should guard against sowing too soon or before the soil and air are sufficiently warm to promote rapid growth. No field should be sown until every part of the field is in the same condition as regards the pulverization and nature of the soil and as regards warmth. If one part of the field is warmer than the other the seed sown on that portion will germinate earlier and the result will be an uneven crop when harvest comes. For example, it very often happens that when a field of oats is harvested a large portion of the grain ripens earlier than the rest, and is lost. This is often due to uneven conditions in the soil when the seed was sown. It may also be due to the quality of the seed sown. If the seed sown consists of small and large grains, there is likely to be a difference in the time of ripening, as the larger and more fully developed grain will produce a plant that, under similar conditions, will ripen earlier than a plant grown from a smaller grain. Besides, the results of experiments carried on at the Experimental Station, Guelph, during the past four years show that the yield will be very much greater from large, round, plump seed than from small seed. To ensure a good crop that will ripen evenly the farmer should aim at having an even seed bed, an even degree of warmth in the soil, and a good quality of seed.

Whether the sowing is done early or late it always pays to work the land well before the seed is put in. Our best grain farmers are those who give particular attention to this point, and who aim at having the soil thoroughly pulverized before the seed is sown. Extra cultivation and extra harrowing will always pay providing other conditions are favorable, and though it will pay to sow as early in the spring as possible, yet it will be injurious to do so before the land is in perfect condition for receiving the seed.

Breeding Cattle in Demand.

Reports from nearly all sources and especially from the western cattle ranges show a great demand for breeding cattle. So great is the demand that it is almost impossible to supply it. Auction sales of cattle are largely attended and prices are higher than they have been for some time. The stockmen who foresaw how things would be a year or two ago and stocked up at the low prices that prevailed are now making big money on their investments. In the Western States speculation in steers has been heavy and at constantly advancing prices.

One good feature in the situation is the demand for registered stock. The prices for registered males in the west have trebled in many instances. This also leads up to a universal demand for cows and heifers. It is estimated on the very best authority that it will take at least four years to restock the ranges with cattle to their former capacity, as it will take three years to get steers on the market after the cows begin to breed. The breeders in the west are therefore looking for five or ten years of good business in the cattle trade, and conditions favorable to their interests will be favorable to breeders elsewhere. Canadian breeders may look forward with hopefulness also.

Scarcity of Fine Wools.

"The supply of fine wools in existence to-day is smaller (relatively to the world's needs) than it has been at any time within the longest memory." So says *The Monthly Bulletin* for March of the

National Wool Growers' Association. This statement is based upon facts connected with the world's output for the past two years gathered from reliable sources. The world's wool market, and particularly that of fine wools, is governed by the Australian output. The 1897 clip of wool in Australia was very much short of the usual output, and the quality, owing to the drought, was considerably deteriorated. As the conditions for 1898 are not likely to be an improvement over those of 1897 we may look for a further curtailment in this year's clip. The last clip of wool there showed a falling off of 170,000 bales, and if anything near this occurs this year there will be a most extraordinary depletion of the stocks of fine wool. Therefore, unless the demand for fine woollen goods falls very much below the usual demand fine wools will command high prices during the next few years.

There is this feature to be considered, however, if the price of the best quality of wools goes up to a high figure, consumers are apt to content themselves with an inferior and lower priced article. Should such a condition of things arise the growers of fine wools would not receive the full benefit and a share of the advance in prices would fall to the producer of the coarse variety.

The Poultry Industry of Canada.

By THOMAS A. DUFF, Toronto, Ont.

(Continued from last week.)

FEEDING FOR EGGS.

One of the most important considerations in the management of poultry is the feed. Fowl require a balanced ration in order to produce eggs as much as the dairy cow requires such a ration for the production of milk. It requires a certain quantity of food to be taken into the system to keep up the constitution and to supply heat, the balance or surplus food going to make up that which is produced. Poultry should, therefore, be fed that class of food which contains the ingredients necessary to make up the egg. I am quite satisfied that very little, if any, money can be made out of poultry which are fed wholly upon a grain ration. The food will prove too costly.

Do not feed too much or too little. Fowls require a change. It is absurd to suppose that a continuous supply of wheat, without change of variety, will do. For egg production I would recommend the following:

In my opinion clover hay is one of the very best foods you can give to laying hens, for many reasons. It is bulky. It contains the nitrogenous elements and the carbohydrates in excellent proportions for the nourishment of the fowl. It is rich in mineral constituents. Compounds of lime are abundant, such as are required for shell formation. The poultry relish it at all seasons. It is especially appetizing to them in winter when there is a dearth of green food. Put the shortest cut upon your straw-cutter and cut the clover into lengths from three sixteenths of an inch up, having, if possible, none longer than an inch. Take a quantity sufficient for your purpose (and of this you must be the sole judge, according to the number of fowl kept), and put it into a pail or boiler, then take a kettle of boiling water and pour it over the clover; cover with a cloth, and leave it to steam for from twenty minutes to half an hour according to the temperature of the weather. Into this I would mix equal parts (bulk) of bran, shorts, oat chop and barley meal, and to every twenty-five hens I would add one pint of pea meal. First mix these meals thoroughly together, and add to the steamed clover. Mix as dry as possible, as it is dangerous to feed sloppy food. A great many people run away with the idea that the morning food should be fed as hot as possible; this I believe to be a mistake, because when the fowl are fed hot food they are not in a condition to withstand any sudden change of temperature, and the result is distemper and roup. The morning food should, therefore, never be fed warmer than milk heat. I would recommend these to be fed in a trough about three inches deep, placed against the wall so that the fowl

could not get their feet into it. Do not allow the fowl to gorge themselves, as it makes them lazy. A hen should be active—always busy. Such are the best layers.

I cannot too strongly comment upon the feeding of green bone. In my opinion it is, *par excellence*, the greatest boon the poultry world has had in years. I would give a little of this at noon each day, allowing about one ounce to each bird. Should it be impossible to get green bone, I would advise giving a little skim milk or buttermilk, and failing that, a liver, which should always be par-boiled before being fed.

It will be admitted upon all sides that poultry, as a rule, lay better in summer than in winter. The reason for this is that they are able to get the proper kind of food which goes to make up the egg. They get animal matter in the shape of grasshoppers, worms, grubs, flies, etc., and vegetable matter or green food in the way of clover tops, grass and the like. If, therefore, you feed the same kind of food in the winter as they themselves gather in the summer, and have a warm, comfortable house, it stands to reason that you should get a good supply of eggs in the winter months when the price is high, and winter eggs is where the profit comes in. Be sure, therefore, to feed plenty of vegetable matter. This can be given in the shape of cabbage, turnips or mangels.

At night I would feed whole grain—all that the fowl will eat up clean. Do not mix the grains, but give a variety—one week wheat, another buckwheat, another corn, etc.

Plenty of fresh water should always be given, and it is a good practice, during the winter, to take the chill off it. After they have done drinking throw the water out. Plenty of sharp sand and gravel should always be within reach, also lime for the formation of shell. This can be supplied by placing old plaster where the fowl can get at it. The best article for this purpose, however, is ground oyster shells which can be bought at almost any seed store, and is now kept by druggists and hardware merchants all over the province.

The Prepotency of Sires.

At the recent live stock shows held in England visitors were greatly impressed by the striking examples of the prepotency of sires to be seen in many of the animals exhibited. One remarkable instance was that of the get of old Harold, the noted winner in the Shire horse classes. For the last two or three years winners at the Shire horse shows have to a large degree been of the Harold get, and last week's results show this in a more marked degree. The owner, Mr. Henderson, swept nearly all the prizes in the Shire classes at the London show, and the primary cause of his success is high-skill breeding by illustrious sires so as to get the right material, after which the trainer's art would be requisite to make the highest type of animal.

The wonderful success of the Harold get and the high reputation enjoyed by so many animals of that lineage have naturally raised the value of every animal partaking of it to a high limit. So much so is this the case that the prices asked for mares and fillies of this strain and for the hire of Harold stallions are considered by some to be extravagant. Whether this be so or not there is no doubt that the prices asked are within reason and what many who appreciate really fine animals are willing to pay. Our farmers would be thunderstruck if they were asked to pay the prices for the service of a sire that some of the English farmers are quite willing to pay. For the service of Markeaton Royal Harold, 15 guineas are asked for each mare. This is about the price that many Canadian farmers expect to get for a colt when a year or two old. However, everything considered the price is not an exorbitant one, and a sire with the reputation for getting good stock which one of the Harold strain possesses will give a good return.

The same law of the prepotency of the sire is noticeable in every high class breed of cattle,