

of production. These have to be continually studied and advantage taken of them as the price goes lower. Strict business principles are involved, perhaps, to a greater extent in fruit growing than any other line of agriculture, which gives the wide-awake, brainy man the advantage over his naturally less fortunate brother.

THE BRITISH MARKET FOR FRUIT.

For a number of years Mr. A. H. Pettit, who was Canada's Fruit Commissioner at the World's Fair, has made the markets of Great Britain a study, and has consigned a number of shipments, principally of apples, to London, Liverpool, and Glasgow. His fruit plantation covers some 50 acres, on which he has 1,100 to 1,200 pear trees, mostly of Bartlett and Duchess; 1,100 apple trees, of Baldwins, Greenings, Spies, Russets, and a few trees of Astrachans and Alexanders; and the remainder in grapes, peaches and small fruit. Astrachan apples and black berries were being picked and shipped at the time of our visit to the stock company's agencies mentioned above. It is the intention to send forward a shipment of Alexanders to the English market through the Dominion Agricultural Department, who sent 14 cars of early fruits last year in cold storage. The fruits sent last year were early apples, pears, plums, tomatoes, and grapes. This year cases for ten cars have been provided the committee of nine members of Grimsby fruit growers who have agreed to supply the fruit. The fruit when ready is packed and stored in the new cold storage building erected for this purpose in Grimsby. When thoroughly cold one or two cars, or whatever is ready, is sent forward by refrigerator cars to Montreal, then by steamship cold storage to a commission house in Britain. The growers are guaranteed the home market wholesale price for their fruit, and have with all other fruit growers the advantage of opening the new market for future years, which will be of no small consideration if the shipments arrive in first-class order and are immediately put on the best markets under the name "Canadian fruit." In connection with this enterprise one car of grapes was taken last year and will be again this season. This seems like a very small quantity with which to introduce our excellent Canadian grapes at a time when we have so many to spare. The plea is made that Englishmen will not eat Canadian grapes while they can get better flavored sorts from Southern Europe, but it does seem reasonable to suppose that hundreds of tons would be consumed, especially by the middle classes, if put down to them at a low enough price. The average wholesale price received in Canada for grapes has during late years been not over two cents per pound, and in Britain for continental grapes six to seven cents. Now our growers could very much undersell the European and still have the best Canadian price, which, if it were no better than is now received, would relieve the Canadian market considerably.

The Apple Trade with Great Britain could be made much better than it now is if more care were taken in packing the crop, and better ventilated, cooler steamship facilities afforded. The former trouble lies largely with the packers, who buy up whole orchards, employ cheap help, and pack apples of all grades together and stamp them No. 1 XXX, or something to indicate a good product. During a conversation with Mr. G. H. Shuttleworth (of Simons, Shuttleworth & Co., of Liverpool), Apple Commissioner, we learned that a serious lack of confidence in Canadian apples results from the cause of dishonest packing and branding. The remark was made by the gentleman referred to, that every barrel of poor fruit takes the place of four or five of a first-class sort, for the reason that the poor barrel injures the demand for more, while a good one would improve it by causing a greater consumption.

The question of better steamship quarters will have to be taken hold of by our Government with more vigor than in the past. As it now is, ship companies claim they cannot provide special cool quarters for apples for the short season of two or three months, and the result is apples are often sent down below in the hottest place in the vessel, which, of course, seriously deteriorates the fruit by causing it to heat and sweat, and in some cases completely ruins it, so that the shipping of apples across the ocean, even when well packed, involves considerable risk and sometimes serious loss.

Notwithstanding the dangers of a ruined shipment, Mr. A. H. Pettit sends his winter apples direct to Great Britain. His method is to secure boat space ahead, which always enables him to get cars when he wants them, and then oversees the picking and packing personally, putting in only No. 1 choice stock. As fast as the apples are picked and packed they are taken away and forwarded to the commission house decided upon, so that every chance is given the fruit to open out in fine condition. Occasionally a lot arrives slack and deteriorated, but taking one year with another a good price is secured in this way.

Mr. Pettit's pear orchard is a sight to delight the eye. The bulk is of Duchess and Bartlett grafted on quince stocks. The trees are nourished in such a way as to produce fruit and not wood growth, by giving liberal cultivation and only the coarsest of barnyard manure. The result is a tremendously heavy yield of beautiful, even, clean fruit throughout the entire orchard, with very little new wood out the ends of the limbs. A neighboring pear orchard we noticed that had been given every care and advantage, receiving liberal dressings of bone

meal, has made great wood growth this season, but has produced no fruit to speak of. It is probable the returns of future years will make up for this season's deficit. We instance this to show the treatment that produces fruit and that which advances growth of tree. Much of the first-class stock from the pear orchard will be sent to England in the Government department shipments.

The peach crop on this farm too is well-nigh a failure this season. Mr. Pettit is studiously pursuing experiments to combat the curl leaf, and it is hoped will soon find a remedy.

The tomatoes sent forward last year to the British market were complained of as being too large, so Mr. Pettit is endeavoring to grow dwarf sorts such as that market asks for. He has a quantity of plants growing between rows of peach trees more as an experiment than as a marketing crop. These will not produce heavily, but the fruit will be smooth and fine. The cultivation on this farm is of a sort similar to Mr. Murray Pettit's.

POULTRY.

Early Moulting

AND HOW IT MAY BE BROUGHT ABOUT—DETAILS OF MANAGEMENT—EXPERIENCE LEARNED AT THE EXPERIMENTAL FARM—SUMMARY OF POINTS.

To have early winter layers, the hens should moult early and be in prime condition—that is, neither too fat nor too lean—by the middle or end of October. They should begin to lay well in early November, when the price of eggs is going up in the cities and large towns. In the colder districts of Canada, hens go into winter quarters about the beginning of December, sometimes earlier, and from that time until the following April they are artificially fed and housed. It is during that period that the up-to-date poultry-keeper has his harvest, for in Montreal and Ottawa prices for new laid eggs range from 45 to 30 cents per dozen, according to severity or otherwise of the season. The highest figures are obtained about a week previous to the Christmas season, and for a month following. In the milder portions of the country, where the curing of winter eggs is not so much a matter of skill in feeding and management, because the hens can run out, occasionally prices are lower. It is, however, an object in either case to have the laying stock over their moult by October. It must be remembered that while hens are moulting they do not lay eggs, hence the moulting period is one of non-production. It should be an object, then, to cut short, if possible, that season of non-production. Can it be done? Yes, but success is conditional, and here are some of the conditions:

1. The laying stock should not be over two years of age.
2. They should have a run in midsummer in a field where they can find insect life and get clover and grass.
3. Meat or cut bone should be supplied in regular quantity. The meat should be cooked.
4. Where the fowls are confined to limited quarters, green stuff and meat, in some shape, should be regularly supplied.

HOW WE MANAGE AT THE EXPERIMENTAL FARM.

For the past three or four years attention has been given to the bringing on of an early moult and the shortening of the non-revenue producing season. Every effort was made to have hens moult in the midsummer months when the price of eggs was about the lowest. In order to bring this about, during the first week in July the breeding pens were all broken up and the male birds were removed to quarters by themselves. The hens were then allowed to run promiscuously in small fields in rear of the poultry buildings. In these fields they had grass and clover and a certain amount of insect life. The rations were composed of wheat, buckwheat and oats—the two latter mixed—and were fed twice per diem. During August, a warm mash composed of ground grains, to which was added deodorized blood meal in the proportion of one ounce to every ten hens, was fed three times per week in the morning, and a grain ration in the afternoon. When cut bone could be procured, it was fed in lieu of the deodorized blood meal, and it was fed in lieu of the deodorized blood meal. A quantity of one pound to every fifteen hens. A light noon ration was occasionally given. This treatment was continued until the new feathers were fairly well out, when the noon ration was dropped and every care was taken to prevent the hens becoming too fat. Towards the end of October, cut bone, in the proportions named, was fed three times per week regularly. When laying had fairly commenced in November, a small quantity was given every day. Roots or cabbage were in abundant supply.

WHAT WAS LEARNED.

Experience proved that if the above treatment is carried out, with care that too much is not fed and an overfat condition result, the laying stock will make a satisfactory response in the winter months, commencing with a moderate output in late October or early November, and gradually but surely increasing. For instance, in the fall of 1896 we had 204 hens and pullets, and they gave in November 508 eggs, and in December 1,406 eggs. We calculated we had 120 active layers, for we had to keep over a certain number of old hens for set-ters, as we had no incubator. A certain number of old hens were also kept over for breeders. Winter

laying commenced at end of October. Your numerous readers interested in poultry will know full well that no hens could have laid the number of eggs and in the months named unless they had gone into winter quarters in prime condition.

Another lesson taught was that winter layers moult early. The moral is obvious to the farmers. Let them make their hens lay well in winter. Have your hens moult during the hot summer months; at that period prices are low. As it is, the hens of the great majority of farmers begin only to lay in spring, and do not moult until late in the fall. Nay, some of the old stock take all winter to drag through their moult. It is needless to say that such stock are not only unproductive, but eat a certain portion of the profit made by the active layers.

SUMMARY.

A synopsis of treatment recommended may be interesting:

1. Let the laying stock have access to clover and grass and insect life if possible. If kept in limited quarters, supply cooked meat and green stuff regularly.
2. In middle of August give mash three mornings of week. Other three mornings, cut bone or cooked lean meat, beef heads, etc. For afternoon ration, sound grain of some kind.
3. When new feathers appear be careful not to overfeed. Keep hens in exercise searching for their grain food if possible. If in limited quarters, exercise is imperative to avoid an overfat condition.
4. The early pullets will stand a greater quantity of stimulating food than the older hens. May hatched pullets ought to begin to lay in December or late November.
5. The above applies to hens not over two years of age, and which are winter layers.
6. A supply of grit, pure water, lime, and green stuff are at all times essential, particularly so during the winter season. Hens running at large will, of course, supply themselves if it is to be had. Do not say, "Oh! you have fine buildings, all the requisites, and the Government at your back, and you can do what we cannot." Not so; we have fourteen breeds, composed of old, middle aged and young birds. We experiment with a view of giving you what we learn. And we do know that a farmer with one breed of fowls ought to have a good time in handling them so as to make money out of them. In poultry keeping, as in every other department of farm work, intelligence, energy, and a thorough knowledge of your business is imperative. With proper care there is money in poultry.

A. G. GILBERT.

Central Expt. Farm, Ottawa, 25th July, 1898.

MISCELLANEOUS.

Tamworth Standard of Excellence and the Bacon Temperament.

SIR.—The following is the standard recently adopted by the National Pig Breeders' Association of Great Britain:

TAMWORTH.

Color.—Golden-red hair on a flesh-colored skin, free from black.
Head.—Fairly long; snout moderately long and quite straight; face slightly dished, wide between ears.
Ears.—Rather long, with fine fringe, carried rigid and inclined slightly forward.
Neck.—Fairly long and muscular, especially in boar.
Chest.—Wide and deep.
Shoulders.—Fine, slanting, and well set.
Legs.—Strong and shapely, with plenty of bone, and set well outside of body.
Pasterns.—Strong and sloping.
Feet.—Strong and of fair size.
Back.—Long and straight.
Loins.—Strong and broad.
Tail.—Set on high and well tasselled.
Sides.—Long and deep.
Ribs.—Well sprung and extending up to flank.
Belly.—Deep, with straight underline.
Quarters.—Full and well let down.
Flank.—Full, wide, and straight from tip (hip) to tail.
Hams.—Broad and full, well let down to hock.
Coat.—Abundant, long, straight, and fine.
Action.—Firm and free.

Objections.—Black hair, very light or ginger hair; curly coat; coarse mane; black spots in skin; slouch or drooping ears; short or turned-up snout; heavy shoulders; wrinkled skin; infant knees; hollowiness at back of shoulder.

In my opinion points of superior excellence would be shown (and added to the above) by (a) a slightly prominent pelvic arch; (b) well-developed vertebrae; (c) strong navel development; (d) udder of long abdominal attachment from front to rear, and well balanced as to form; and (e) femininity and musculinity. My theory is that the special bacon hog must possess great nervous energy—indicated by the conformation—like that of the dairy cow and the race horse. Milk-giving is a nervous function; so is speed in the horse, growth of fine wool in the sheep, and red meat—bacon—in the hog. Judges at our fairs this fall would do well to study these points when judging Tamworths, and there is no reason why the Tamworth and all other breeds having a standard of excellence should not be scored by points.

P. E. I., July 18.

J. A. MACDONALD.

[NOTE.—The system of judging by score-card has been tried and found wanting. It is now discredited and discarded even by the leading poultry associations, where it had a fair trial, and where, if anywhere, it might have been expected to give satisfaction. There is just as much difference in the men's judgment of the comparative value of the various points as there is in their estimate of the comparative excellence of the animals as a whole judged by the senses of sight and feeling.—EDITOR.]