

requisite in most cases to consummate a sale is for each egg to have an intact shell. No more practical step can be taken in improving quality than to discard this system of buying and replace it by the one known to the trade as "loss-off."

Where the "loss-off" system is in use the eggs, as bought, are "candled"—that is, subjected to a test which shows quite definitely their condition and quality. By this test, it is possible to detect "rots," "spots," and other deteriorated eggs, such as shrunken, weak, watery, and heated eggs. In paying for eggs bought on this basis, the rots and usually the spots and blood-rings are thrown out entirely, so that they become a dead loss to the person responsible for them. Such a classification and method of payment is a distinct step forward, and results in a great improvement in the eggs.

Housing Poultry.

Perhaps no other branch of the poultry business requires and is deserving of more attention than the housing of poultry. A few years ago it was believed that, above all things, the poultry house must be warm, and buildings were built on the hothouse plan. As pointed out by Prof. W. R. Graham in his illustrated address to poultrymen recently gathered at Guelph, it is not heat that is essential to good results from poultry-keeping, but the essentials to a good poultry house are plenty of light, good ventilation, cleanliness, and freedom from drafts and dampness. Prof. Graham has made an extensive study of poultry houses in several districts, especially Norfolk County, and from the excellent number of slides which he showed there are many different styles of houses giving good results at the present time. Many of the houses illustrated in his lecture were very cheap, yet they were so built and so situated as to make them very useful. One house, in particular was a very common structure, yet it was so arranged as to admit the morning and afternoon sun, and the hens were permitted to run in a yard to the east of the building in the mornings, so as to insure the best use of the sun's light and heat, and in the afternoon they were allowed out through another opening in the pen into the barnyard, which gave them the benefit of the afternoon sun to scratch in the barnyard litter. There is no better place for laying hens to scratch than in a dry, well-littered barnyard, and, where possible, the poultry house should be situated close to it. Expensive houses are not absolutely necessary. The open-front house is still in favor, as it insures an abundance of fresh air, and the low-eaved type recommended by Prof. Graham is remarkably free from drafts, and is a well-lighted, dry house, which can be erected at reasonable cost, a house 20 feet square, with cement floor and all complete not costing over \$100.

Marketing Poultry.

Prof. F. C. Elford gave an interesting and instructive address at the Poultry Meeting in connection with the Winter Fair, recently held at Guelph. He stated that agricultural colleges have recently done considerable work in demonstrating how best to market poultry produce, and that there is nothing in marketing poultry that pays as well as the "Finishing Touch," but in a great many cases this part is overlooked. The reasons why they are not given the proper finishing, in a great many cases, are indifference, ignorance, and wilful neglect.

The poultry business has now grown to such proportions that it must be properly taken care of. There is \$50,000,000 worth of poultry produce marketed in Canada in one year, yet the great majority of people do not know what a fresh egg is. In calling on a produce merchant in Montreal not long ago, said Mr. Elford, he showed me a case of thirty dozen eggs which he had bought as strictly fresh. Out of the whole case, there were only eighteen dozen which candled as fresh eggs. The time will come—and the sooner the better—when people will get their desserts who market what really are stale eggs as strictly fresh. To keep up prices, there must be honesty all the way through. When low prices prevail, it is because we put on the market such a poor quality of produce. If one case of stale eggs is put on the market and sold as strictly fresh, it has a tendency to lower the market value of the produce. If a man has a bad egg for breakfast, the chances are he won't eat eggs again for some time.

Poultrymen must see that the trouble is remedied, and, to do this, a better system of marketing is necessary. Egg-peddlers going through the country get fresh eggs from one place, and from the next eggs that have probably been kept two or three months. The system of egg-peddling, or the country-store system, must be done away with to eliminate bad eggs from the market. There must be co-operation among the producers to get the eggs on the consumer's table as soon as possible.

The system just referred to causes too much expense in marketing. It now costs \$10,000,000 to market \$15,000,000 worth of eggs produced, or

10 cents to market a 15-cent article. If we can work out some system whereby middlemen can be done away with, then the producer will get better prices. At present, the people that handle the eggs from the time they leave the producer until they get to the consumer, receive a large share of the profits. The middlemen are also partly to blame for the bad eggs. Eggs kept in a store where the temperature is quite high are fresh for only a very short time.

The marketing of poultry ought to be spread over the whole twelve months to keep up good prices all the year round. At some seasons so much poultry is rushed on the market that the prices become very low. Poultry should be marketed at the right age to get best prices. Do not keep your chickens until they are old hens. In the spring they are worth 22 cents a pound, and at this season old hens only bring about 5 cents a pound.

"What we need in the poultry business is honesty, co-operation, and standardization, and, if necessary, legislation to enforce it," said Mr. Elford, in conclusion.

GARDEN & ORCHARD.

Topical Fruit Notes.

Another milestone is passed, and we are off to a good start in the race of 1912. With a good year behind us, we are in excellent condition, and there are many signs to indicate that the present year will be a successful one for the fruit-growers of Ontario.

At present the orchards are in excellent condition; the trees look fresh and healthy, and there is evidence, from the formation of fruit buds, that the next crop will be up to the average. This is not saying very much, but it means that we are at least hopeful, and willing to lay heavy stakes against the weather obstacles of 1912. Fruit-growing is at best very much of a gamble, and to have something at stake adds vim to the race.

The nurserymen are flooded with orders. In some lines, such as Elberta and St. John peaches, many of them are already sold out, and have to refuse to take further orders. This means heavy planting and rush work for the growers in the spring. It also means heavy shipments for the nurserymen, and great temptation for them to send out inferior stock, which in slacker years would be culled out and burned. The grower should get after his nurseryman early, and should see to it that he gets good healthy stock. Buy from a reliable nurseryman, and you will be most likely to get your stock true to name; but in a rush season use greater care, for the temptation is greater. Rather get a small, healthy tree that will grow than a big, shrivelled one that is dead before it is planted. This is particularly applicable to peaches and sweet cherries.

Does this heavy planting mean overproduction at some near time in the future? The district from Hamilton to Niagara Falls is becoming nearly one continuous orchard, but there are thousands of acres available for planting yet. Norfolk, Essex, Lambton claim to have large areas suitable for growing tender fruits. Nearly the whole of Old Ontario can grow apples. And all these districts are planting with a vengeance. A fruit boom is certainly around us. Now, overproduction is evidenced by shortage of markets and a consequent drop in prices. We have known this before, and may know it again, but it is not so probable as in the past. Why?

First.—Our markets are larger, and are increasing at a rapid rate annually, due to our wonderful growth in population; they are wider, due to increased facilities of distribution; they are coming to extend over a longer season, due to improvements and extension of cold-storage facilities, to which we hope soon to see added the pre-cooling of fruit.

Secondly.—Our fruit is being given better attention in growing and in preparing for market, due to cumulative teaching of Government officials and the more progressive growers; due to the efforts of co-operative societies, and also due in a great extent to the natural demands of the markets. Good fruit, put up in good style, will undoubtedly increase the consumption.

Thirdly.—and of most importance to growers in the Niagara Peninsula, at least, the wonderful impetus given to jam manufacturing in the last few years, has resulted in the erection of numerous jam factories, whose demands at present seem insatiable, especially for certain kinds of fruit. We have apparently taken the contagion from England and gone mad over jams and marmalade. And not a bad form of madness, either for the consumer or the producer, so long as the jam manufacturers are required by law to put up pure jams.

For these reasons, especially, I think the fruit industry is safe for a few years to come. When the vast areas of new orchards come into bearing, it will be time for us to consider the

changed conditions. It would show a poor spirit of sportsmanship to shake hands with the devil so early in the race. * * * W. R. D.

A special meeting of the Niagara District Fruit-growers' Association was called for December 20th at St. Catharines, and was well attended by representative growers from the whole district. The main topic of discussion was "Little Peach," that insidious disease of peach trees which has already caused the district serious loss, and bids fair to remain a menace of considerable proportion, unless the present system of inspection is adhered to and probably more rigorously enforced in some of the townships. All the growers present were convinced that drastic measures must be maintained to get the disease under control, and, if possible, to wipe it out of the peninsula altogether. The trend of opinion was that the inspection work should be thoroughly organized and placed under the charge of an officer of marked administrative ability. At the same time, a scientific investigation should be conducted, inquiring into the cause and nature of the disease. Prof. Caesar was suggested as the best man available for the position, and there seems not the least doubt but that the fruit-growers would do a very good stroke of business for themselves and the Province if they could secure Prof. Caesar's services to begin a systematic study of the diseases affecting fruit trees. Why not attach such a position to the Jordan Experimental Farm? We are certainly woefully lacking in such investigators at present, and but for the officer named would be unable to report the least progress. Wentworth Co., Ont.

Tolman Sweet Stocks for Spies and Kings.

In apple-growing, as in almost everything else, there are many ideas urged that look better in prospect than they pan out in practice. As a rule, it is best for the amateur not to rely upon plausible theories which do not accord with common practice. One should be sure that he understands all the ins and outs of a question before staking much upon his own or anyone else's judgment. There is nothing like discussion to expose the weaknesses of inexpedient plans, to bring out in bold relief the merits of a good idea, and to make for sane decision.

The planting of Tolman Sweet apple trees as stocks upon which to top-graft Spies and other varieties, is a suggestion which has merits and demerits. These are practically discussed by A. McNeill, Chief of the Dominion Fruit Division, in a letter to "The Farmer's Advocate," from which we quote:

"I have my doubts about the practicability of setting out an orchard of Tolman Sweets and grafting to Spies. The advantages are these: The Tolman Sweet crotch is much stronger and in better form than the Spy crotch. The process of grafting has a tendency to throw the scions into bearing somewhat sooner than the original growth. A third advantage is that you are enabled to select your scions from the more prolific trees. To counterbalance these advantages is the difficulty and uncertainty of getting the top-grafting done properly, and the almost absolute certainty of having a great many poor trees as the result of imperfect top-grafting, and as the result of the grafts not taking, and the original Tolman Sweet developing.

Again, the early-bearing qualities of the top-grafts may be offset by skillful pruning and management in the original tree. One could, too, if he gave his order two years ahead, offset the advantages of selecting scions from good stock. If he would select these scions and give them to a trustworthy nurseryman to use for his particular stock, he could then have his selected stock on their own root. The bad crotch of the Northern Spy can be improved, if not altogether corrected, by putting a bolt through the base of the limbs just before the tree comes into bearing. Probably 25 per cent., if not more, of all Spy trees go bad at the crotch. Under the circumstances, I have always recommended to the ordinary farmer not to depend upon top-grafting, but to plant the original trees. There is no doubt, however that, for the skilled fruitman and the careful fruitman, the top-grafting would in all probability be the better.

"As you will see, there is much to be said on both sides of the question. Personally, I am planting the original trees in every case, as I cannot feel sure that I will get the top-grafting done properly, and I know I will not be able to do it myself, or even give it daily personal supervision.

"There is an advantage in using Tolman Sweets as a stock for Kings that does not apply in the case of the Spy. The Spy has a splendid root system itself, but the King makes rather a weakly growth as a nursery tree, and really has not an extra good root-growth until it is an aged tree. By using the Tolman Sweet you get a good root system, and if the work is done carefully and promptly, you also get a good head."