

estimate on the following conditions: (1) That on an average the patron draws milk two and a-half miles, the return trip of five miles taking at least two hours daily. At ten cents per hour for the driver, and five cents per trip for horse and wagon, this becomes twenty-five cents a day. In an average herd of ten cows, this means 2½c. per cow per day, which we think must be esteemed a very moderate estimate. In many cases the milk of a number of patrons is drawn by one man; even then the above estimate is but moderate. These items, then, total six (6) cents per day, which for six months—181 days—equals \$11.04 per cow. Of course we must not forget when calculating cost of milk production, that the cow is idle—in this case—three months of the year, and the cost of the food during this period must be added to the cost of food during the milking period. On a ration of ensilage (corn), straw and grain, the cost during idleness need not exceed about (6½) six and two-thirds cents per head per day, or six dollars (\$6.00) for the 90 days. Six-ninths (⅔) of this (\$4.00) must be saddled upon the factory season. The cost of production and of delivery to the factory now stands on this wise:

Feed.....	\$ 9 67	Total, \$24.71.
Labor.....	11 04	
Food of idleness.....	4 00	

Three thousand six hundred and fifty pounds of milk cost \$24.71; what is the cost of 100 lbs.? "Simply the old problem, gentlemen. If seven sheep cost \$63.00, what will nine cost?"—(O. A. C., '87.) A little calculation will show that 67 5/7c. is the cost of 100 lbs. of milk. But if our estimate of returns is reasonably accurate, 100 pounds of milk only nets the patron 57c. under present conditions—a loss of ten (10) cents on every hundred pounds produced. The cost price of cheese in this case is approximately seven and four-fifths (7 4/5) cents, and the net return six and two-thirds (6 2/3) cents.

It is, of course, unwise to draw conclusions hastily. Numbers of animals in this Province produce more largely than is counted upon here, and some farmers are able to feed and handle their cows in such a way as reduces the cost of milk naturally below these estimates. This, however, does not affect our article. Again, while in some parts of Ontario, where lands are very cheap or otherwise valueless for aught else but pasture, cows may be fed for less than here indicated; the fact that but few herds reach the limit of production here set, and that many of our cheap lands are more or less swampy or full of wild grasses, resulting in an inferior milk, butter and cheese, will offset any advantages that might thus accrue. We disclaim any desire to mould opinion upon this point, further than to set men thinking and to draw to the front the overlooked fact that for moneyed returns we must look first to the source of the product and secondly to the product itself. Indeed, we esteem it matter for national lament that, in our haste after good markets for dairy products, we have by our actions assigned to a second place the source of the same. The golden eggs are not worth more than the hen that laid them.

POULTRY.

Marketing Poultry.

BY R. C. ALLAN.

This being the general season for marketing poultry rather than raising it, perhaps it would not be an importune time to address a few remarks to those who have chickens, large or small, to dispose of. The prevailing prices for poultry are ruinously low, and I am certain that if the average poultry raiser had to buy directly all that his fowls consume very many would soon drop out of the business. But part of the food is home-grown, and something is picked up on the range that is usually rated at much more than it is really worth, and thus the few dollars obtained from the sale of the scraggy, ill-kept cockerels is counted as so much clear gain. Perhaps it is, but I doubt it. "If a thing is worth doing at all it is worth doing well," is a true saying, and is especially applicable to the poultry keeping. The inferior quality of the dressed poultry offered upon our local markets is the chief cause of the low prices at present obtained. As an illustration of this: I was on the market of one of our country towns last week, and upon one of the tables I saw about fifty pairs of chickens that had been purchased by the owner of a refreshment room. They were the most disreputable lot I ever beheld. Not one redeeming pair. Ill-fed, black with pinfeathers, half-skinned, feet incrustured with barnyard filth, crops protruding and flesh blue with putrefaction. Add to all this, that heads, wings and legs hung limply in all directions, and you still lack the almost overpowering stench to convince you that you would not want to eat any of that lot. This is not a fancy sketch; it is a plain, unvarnished statement of facts. And, moreover, a similar display may be seen any Saturday from September till Christmas.

That lot of chickens, I was told, averaged 30 cents per pair. How much may be reasonably supposed the producers had for their labor after the food was paid for that was consumed? Now, had

they been deprived of food until their crops and intestines were empty, carefully plucked, feet cleaned from filth, and their heads, wings and feet neatly disposed of, I feel certain that ten cents per pair could have been obtained more than the price they brought in the above condition. And had the owners fattened them properly before killing them, and presented them to purchasers plump and attractive, who can doubt that they would have been well worth double the prices obtained for them? Thousands of chicks are thus offered for sale upon the markets of our cities and towns that are a disgrace to the vendors, and it is only because people are so accustomed to seeing such poultry and very little that is really good that they will purchase what in many cases should be condemned as unfit for consumption.

There is really too little discrimination shown by the country vendors between their good and poor poultry. A certain price is put upon the chicks in their baskets; the first customer who comesturns them all upsidedown, chooses the largest and best, and pays, say 50 cents for pairs really worth 60 cents, and that would in all probability have brought 60 cents had the owner put that price upon them and 35 cents upon the scrubs. But to him they are all chickens, and he does not dream of selling them on their merit, so he gets scrub prices for the whole lot. It is poor policy to offer the inferior article at all, but it is still worse to sell all at the poor prices. But he goes home a poorer and, alas, not a wiser man, for he goeth straightway and doeth likewise next time. I wonder what merchant would sell his goods upon that principle.

Now, what should the market fowl be, whether broiler or roaster? In the first place, the chicken who lives upon stable pickings and what it can glean from the offensive barnyard supply, with an occasional feed of potato bugs, when especially hard up, is not and cannot be made so delicately-flavored as one that gets clean, wholesome food from the time it is hatched, and is barred from gleaning the barnyard filth. Take, for instance, the brooder chick. His food consists of oatmeal, cornmeal, bread crumbs, green bone, and any little varieties you may supply him with. He runs about and scratches in clean sand, and, when old enough, gets good wheat in addition to his other rations. He does not feel called upon to wander in questionable localities for stray morsels, because he never gets very hungry. He feels very sure that the man who runs the brooder won't forget him; and if the man knows his business, he doesn't. Consequently, at 8 or 10 weeks old he has outstripped his barnyard brother by two weeks. He is plump, and has a delicate layer of fat beneath his fine skin. Properly dressed, he will make "a dainty dish" fit to "set before a king." Kept till he is five months old and he will be a large, handsome bird; but unless you have eaten one raised this way, you cannot appreciate the difference between him and the average roaster of the market. But once accustomed to that class of poultry, the discerning purchaser will have no other, and counts it cheap at double the price of the inferior article.

Chicks for market should not require any special fattening, but should be ready for the knife at any time. And let me impress it upon the reader that time is essential. Do not wring the neck and bleed it an unsightly purple, disgusting to the eye, if nothing else. After killing, no time should be lost in plucking. Upon the expediency of this operation depends the appearance of the bird. Great care should be taken not to break the skin, and with a little practice any one can pluck a chicken without tearing it. Do not put in a skewer to hold feet and wings in position. It is an objection if the fowl must be kept, as putrefaction always begins at the broken place, and the juices of the fowl also escape from such holes in cooking. No water should be allowed to touch the fowl after it is plucked. It will remain fresh longer if kept perfectly dry. Many dip them in weak brine, but it is a mistake to do so. Almost all country markets demand that the fowl be drawn (I do not refer to shipping poultry), and at all events no food should be allowed for at least one night before killing. If kept hungry too long the crop becomes distended with air and detracts from the general appearance. If you are fortunate enough to be able to dispose of your stock to private customers, find out what suits each one and give him his poultry as he wants it, even if you think some other way better. In the same way it is easy to see what suits the general customer best, and that method the enterprising poultryman will not be slow to adopt, thereby contributing alike to the want of his customers and his own credit and profit.

Fowls Roosting Outdoors.

Fowls that have been roosting in trees and other outdoor locations should be induced to sleep inside before the cold weather sets in. There is very little use in carrying them after night to their new quarters, as that will only have to be repeated after their first chance to wander back to their old haunts. It is a much better plan to feed them against the place they are intended to roost in, for a few nights, then throw a little grain inside until they all willingly enter to receive their food, when the door can be closed for the night. If this be repeated a few evenings the old roosts will soon be forgotten. It is well to have a wire or slat door so as not to shut them up in too warm quarters all at once, or the sudden change may cause colds among the fowls.

GARDEN AND ORCHARD.

October Work in the Fruit Garden.

In order to get the best results from a blackberry or raspberry patch, in a northern climate, the bushes should be laid down in the autumn and covered slightly with earth. Anything like weak, new growth and all old, done wood should be cut away. Straw mulch can be used to some extent along with the earth. M. A. Thayer, in his Berry Bulletin for October, recommends the following method: "In laying plants down—the rows running north and south—commence at the north end, removing the dirt from the north side of the hill about four inches deep; gather the branches in close form with a wide fork, raising it toward the top of the bush and press gently to the north, at the same time placing the foot firmly on the base of the hill and press hard towards the north. If the ground is hard or bushes old, a second man may use a potato fork instead of the foot, inserting same deeply close to the south side of the hill and press over slowly, bending the bush in the root until nearly flat on the ground. The bush can be held down by a wide fork until properly covered. This process is an important one, but is easily acquired with a little practice. In the spring, remove the dirt carefully with a fork, and slowly raise the bushes and stake them up." Strawberry runners should be removed, allowing four or five inches for each plant in rich land.

APIARY.

Hives.

BY JOHN MYERS.

There has been a great deal written of late in the bee journals about the right size of a hive—one that suits the requirements of the bees at all times of the year. I have been greatly interested in this discussion, and am persuaded that it will result in a great deal of good. When I first commenced keeping bees, about fifteen years ago, I used what is known as the eight-frame Quinby hive, which contains about one-fourth more comb space than the eight-frame Langstroth. While using this hive I had splendid success with my bees. They always seemed to winter well and built up well in the spring, and were ready for the honey harvest in time, and oh! such rousing big swarms they used to send out. Well, the bee-keepers, through the Bee Journal, commenced to agitate the necessity of a smaller hive. (I might say here that the ten-framed hive seemed to be the standard at that time.) The advocates of a smaller hive pointed out that the ten-frame Langstroth was too large for the queen to keep filled with brood, and that they would fill the two outside combs with honey, and that this honey might be in the sections; also that the ten-frame hive was too heavy to handle, and too large for the bees to keep up the necessary heat in the spring for breeding, and I don't know what they did not say against the large hive. The result was that the supply manufacturers commenced making only the smaller hives, and bee-keepers all over the country commenced to use them; some even going so far as to argue that if an eight-frame hive was better than a ten-frame, would not a still smaller one be better yet; and they commenced to advocate a hive with eight frames, only that these frames were five inches deep. Of course, I, along with the rest, turned over my eighty colonies from those Quinby hives into the eight-frame Langstroth. But I always kept a few of the larger sized ones in my yard, and while the smaller hives were much better to handle and seemed to suit my taste better than the others, yet the bees always seemed to be stronger and gave more surplus than those in my favorite Langstroth hive. One thing I particularly noticed was that larger swarms than the Quinby hives sent out larger swarms into the others, and that when I put those swarms into the smaller hives, how they used to lay up the surplus! These great big swarms used to fill the brood chambers and surplus boxes so full of bees that they could not help but work in the sections. But, of course, I had the small-hive fever, and the only way I had to get around it was to credit the surplus taken from such colonies to the small-hive list, although the large hives produced the bees that did the work. I will first state here that, in referring to the hives above, the brood chamber only, and not the upper or surplus apartment, is referred to. After ten years' use of the eight-frame hive by the side of those of larger dimensions in the same yard, I am free to confess that although the eight-frame Langstroth hive is the easiest and nicest to handle, yet a hive of somewhat larger dimensions is more suitable to the necessities of the bees, both in winter and summer, and more profitable to the apiarist. Of course, I know that if the apiarist is very particular and sees that the colony in the smaller hive is in the very best normal condition, with an abundance of stores, he may be fairly successful; but to get these smaller colonies into this condition means that they must be well fed in the fall and stimulated in the spring, which means a lot of work, thus raising the cost of the production of the honey crop, which I contend is not so necessary in the larger hive, the bees being better able to look after themselves, because of more space in which to deposit winter stores, and more bees to do the work of putting it there. I also think the Langstroth frame is not deep enough for the bees to get into the best position for forming a compact cluster for wintering.