and earning from $50 to $100 in from four to six weeks.

MARKETING.

Until recently, nearly all the berries grown about here were put upon the commission market, which frequently resulted in low prices for the producer. Now they are either sent out on orders, or sold outright at the shipping point, which is proving much more satisfactory. Then, too, as soon as they get down to canning factories prices, they are utilized at home and kept off the market, so that city people must expect to pay what they are worth in the future.

Lincoln Co., Ont. W. B. RITTENHOUSE.

POTATO SCAB.

Prepared for "The Farmer's Advocate" by W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Maine Agricultural Experiment Station, Orono, Maine. Bulletin No. 141, by W. J. Morse: This bulletin is a good treatise on the disease known as potato scab, which, under some conditions, disfigures potatoes very much in Canada. Not only is the potato affected with this disease, but, "In addition to the potato, beets, mangels, turnips and rutabagas are quite susceptible to the disease. It has also been found on cabbage and carrot roots, and possibly may develop in a slight degree on radishes, salsify and parnsips."

The potato scab is a disease which spreads by means of spores which are either in the ground or on the tuber when it is planted. It does not develop spontaneously, as is sometimes supposed, but must be carried to the soil in some way from somewhere. When the conditions of the soil are made more alkaline, as by the application of fresh manure, lime and ashes, the conditions are made more favorable for the development of scab. Some fertilizers, on the other hand, have the effect of making soil conditions less favorable to the development of scab. These are superphosphate, ammonia sulphate, kainit, sulphate and muriate of potash. Speaking generally, alkaline soils give favorable conditions, and acid soil conditions unfavorable to the potato-scab disease. The disease will remain active in the soil for a long time, which makes it very difficult to eradicate entirely. There has been a large amount of scab found on potatoes where none had been grown for from five to seven years, and where clean seed was used. A long rotation is, hence, advisable. Where the disease is bad, it is recommended to plow under a green crop just before the potato crop, which will help to make the land somewhat sour, and give least favorable conditions for the scab. Very good results have been obtained by the successive plowing under of green crops for a number of years on land which had been badly infested with scab. By the seventh year, when potatoes had been grown every year on the same land, a crop of 285 bushels per acre was raised by a man in Ohio, nearly free from scab. Scabby seed should not be planted without being treated to destroy the spores. Great care should be taken not to use baskets or bags which have had scabby potatoes. Even implements with dirt on them from an infested field should be well cleaned to make sure they do not reinfect clean land. The tubers are disinfected before planting with either formalin or corrosive sublimate.

"Soak uncut tubers for two hours in solution of one-half pint formalin to fifteen gallons of water, or one and one-half hours in two ounces of corrosive sublimate dissolved in 15 gallons of water. Spread out to dry on grass or clean floor. For large quantities of seed, formaldehyde gas, generated by the use of potassium permanganate, is the most practical disinfecting agent. Place seed tubers in bushel crates or shallow, slatwork bins in a tight room. For each 1,000 cubic feet of space spread 23 ounces of potassium permanganate evenly over the bottom of a large pan or pail in center of room. Pour over this 3 pints of formalin, leave room at once, and allow to remain tightly closed for 24 to 48 hours."

When formalin or corrosive sublimate is used, the same solution may be used over and over again, adding fresh solution when necessary to cover the potatoes.

Press Bulletin, New Series, No. 9, of the University of Idaho Experiment Station, Moscow, Idaho, by L. F. Henderson, also treats briefly of potato scab, and gives results of experiments tried in treating seed potatoes, which were, briefly, as follows:

1. Rolling seed potatoes in sulphur, as has been shown at other stations, will prevent scab little, if at all.

2. Treated potatoes, planted in soil scabby from last year's crop, will produce a scabby crop.

3. Well-treated potatoes, taken from treated sacks and planted in new ground, will produce comparatively scab-free tubers, whether the seed were clean or scabby before treating. As the new ground approached the scabby soil of the previous year, more and more scab could be observed, but in no case much.

4. Formalin gave in this experiment just as good results as corrosive sublimate. That being the case, I would advise all to use it, as it is much safer than the other fungicide.

In another experiment, where very scabby but well-treated potatoes were planted in clean soil, there was a crop with 99 per cent. of clean potatoes.

AMATEUR EXPERIENCE IN ONION CULTURE.

Having had, in 1906, a favorable experience with a strip on onions, I was last year encouraged to put in a rather larger area, though many growers would think it small indeed. Measured exactly, there was nine-sixteenths of an acre sown to onions. The land is loam, inclining to sand rather than to clay, and it had been in cultivated crops for several years, receiving each year a light dressing of manure, so that it was in good heart and fairly clean. Not having been plowed in the fall, it was plowed in the spring, and 12 or 15 loads of manure per acre turned under. The ground was worked and the seed sown about the end of April, the seed-bed being made fairly fine with harrows and clod-crusher. The seed was sown with a hand seeder in rows 19 inches apart, about 3 pounds of seed per acre being used. The rows would have been made closer had not the intention been to cultivate with a horse, but, after all, that was done but once. Last spring being cold, it was a month before the seed came up, but it came up well when it did come, the seed being good. As soon as the plants were well up, the ground was wheel-hoed, and all weeds within a half inch of the onion rows on each side destroyed. Then a man and some boys were impressed into the service one Saturday, and the rows were weeded. We used fingers principally, but also little implements made of table knives, with an inch of the end bent at right-angles. In about two weeks, when the onions were the size of pipe-stems, the wheel-hoe was used once more, and the plants thinned to an average of 1½ in. apart. Experiment the year previous pointed to that as being the proper distance to secure the largest yield. Where, as sometimes happened, there was a gap of six inches or more, two plants on each side of it were left close together, and they apparently grew as large as if they had been evenly distributed over the space. Thinning onions is slow work, and no great fun, either, but it was thought that it would save labor at harvesting, and assist in the selling process, the bulbs being a better and evener size. It did both, and, we think, paid. A man and some boys were again employed. The heavy end of the work was now past. The next working was done with a horse and spike-toothed cultivator, but it was not used again, as there was danger of injuring the plants, and the remaining two cultivations were done with the wheeled hoe. Some stray weeds in the rows were pulled by hand. The season last year was a late one all through, but the crop ripened fairly well, and was harvested in the latter half of September, though it was the middle of October before all were cured and taken in. The yield was 270 bushels, at the rate of 480 bush. per acre, and was sold, wholesale, before being harvested, at 80 to 90 cents per bushel. The returns from this little plot amounted to $215. The seed and hired help came to $15.

Middlesex Co., Ont. T. BATY.

APIARY.

A COMMON MISTAKE.

A mistake common with beginners in beekeeping is the idea that the honey season commences as soon as bees begin flying in spring. Consequently, the prospective beekeeper is in a big hurry to carry home the bees he has bought from a neighbor, or from somebody at a distance. He seems to think that every day he has not the bees at home after the first of April, or so, he is missing part of the revenue to be derived from that season. This is a mistake, and the beginner cannot do better than leave the bees in the possession of one who understands them, and will not go playing with them until they are able to stand it. While bees throughout most of Ontario fly pretty regularly after the middle of April, and usually get some honey and pollen, there is never anything to be gained by the mere having possession of the bees before May is pretty well advanced and fruit bloom is at its height. There is a great fascination in watching the bees work in the fine April days, and the beginner might learn familiarity by sitting beside his bees at that time, but the temptation to look inside would almost certainly become too strong to be resisted, and his bungling operations might prove disastrous, especially on a day which he would consider warm, but which an experienced beekeeper would tell him was altogether too cold to open a bee-hive. The middle of May is time enough for the amateur beekeeper to make the acquaintance of his new live stock. By that time the weather is fairly settled, the bees have passed the critical period of their spring brood-rearing, and are on the high road to prosperity. There is usually a good supply of honey from dandelions, fruit bloom, etc.—enough, at least, to supply the needs of the hive, and the new owner of the bees will have time to become fairly intimate with them before the rush of honey from clover is due. He can buy his supplies, of course, earlier in the season, and have them all ready for the busy time before it comes, or before the bees are brought home. It is advisable for the beginner, if he has never seen the inside of a bee-hive, or does not know exactly how it should be, to have one hive all put together at the factory, and then he can use it as a guide in setting up the other ones. There is a bewildering array of pieces in a hive when they are all separate, and the novice might find it puzzling to tell just what to do with each one, and in the end, perhaps, would not have everything exactly right. E. G. H.

POULTRY.

A YEAR'S EGG RECORD.

On page 295 of "The Farmer's Advocate" of February 20th, Mrs. Geo. Drewery, of Grey Co., Ont., told of the ten-months' egg record of their flock of 50 hens, and promised to send the results of the remaining two months. From April, 1907, to January, 1908, this flock laid 470 dozen and 10 eggs, making an average of 113 eggs per hen. Just to hand is a letter from Mrs. Drewery supplying these further particulars:

"The two last months of the egg record, 102 dozen and 4 eggs. Total number for the year, 573 dozen and 2 eggs, making the average of 137 eggs (with 28 over) for each hen. They laid 43 dozen and 6 eggs in February, and 58 dozen and 7 eggs in March."

Our correspondent is anxious to compare notes with anyone who has done better.

$60 FROM 65 HENS IN THREE MONTHS.

Having read many articles on poultry in your valuable paper, I wish to give our experience concerning production of winter eggs. We have a pen of 65 pure-bred Buff Orpingtons, and, having kept strict account of each day's laying from January 1st, 1908, to April 1st, they laid 2,595 eggs. In January, 463; February, 881, and March, 1,251. The above number of eggs were worth $60 at the market price, we having sold $55 worth, and kept the rest for our own use. The highest price sold for was 40 cents per dozen, and the lowest price 20 cents.

These hens have a free run in yard, and for feed they get, in morning, wheat scattered among straw; for noon, a warm feed of bran, shorts and oat provender, mixed with hot water and milk when we had it, with some table scraps, and in the evening we fed whole oats, and every day gave them a little clover hay to pick the leaves and blossoms from. They were given water twice a day, and always had grit and shell before them.

We find the Buff Orpington the best winter-egg producer that we have tried, and think them a good fowl for the farmer, both for laying and table fowl. They are very quiet, and are great foragers. MRS. A. W. ROSS.

Renfrew Co., Ont.

THE FARM BULLETIN.

AMENDMENTS TO THE ONTARIO SCHOOL ACT.

The amendments to the Provincial School Law of Ontario, which have just been passed by the Legislature, are important. They embody the Government's policy in relation to public-school education, and apparently Dr. Pyne, Minister of Education, has given heed to the demand that special attention be paid to the wants of an agricultural population.

TEACHER TRAINING.

The new legislation provides for a change in the training of teachers. Model schools will be retained only in those portions of the Province where financial conditions require a supply of teachers with the new third-class certificates. In future the cost of maintaining such Model Schools will be borne by the Department, which will also supervise the training and conduct the examinations. Except in the case of the districts and school sections in the counties which are permanently weak, the new third-class certificates will not be valid. The course of study in the Normal Schools has been revised. It now includes both professional and academic instruction. The teachers in training will be required to review and extend their knowledge of such subjects as reading, spelling, grammar, geography, writing, mathematics, etc., which are the basis of a good public-school education. Thus prepared, teachers will be better qualified to remedy the defects now complained of in the primary schools. The course of instruction in the new Model Schools will also be efficiently maintained, and the certificates obtainable there will be the former district certificates, improved in character and issued by the Minister, who will, henceforth, control the professional training of all the teachers in the Province, and will alone issue certificates. The fee of $5 for entrance to the Model