

butter? But the beef man says, "Oh, you have not given us any profits from the steers we can grow and fatten." Bang your steers; why would I raise a steer three years and chance to sell him for \$60, while I could keep a Jersey in his place two of the years with \$80 profit? How much profit out of your steer? Cost! no profit! T. PORTER.
York Co., Ont.

POULTRY.

Poultry Judges.

Following are the judges appointed for poultry and pet stock at Toronto Exhibition, August 29th to September 10th:

Wyandottes and Javas—J. H. Drevenstedt, Johnston, N. Y.
Andalusians, Spanish and Minorcas—G. H. Northrop, Roseville, N. Y.
Asiatics, Ornamental, Bantams, Orpingtons and Dorkings—S. Butterfield, Windsor, Ont.
Plymouth Rocks—J. Bennett, Toronto.
Polands, Geese, Ducks, French Redcaps—L. G. Jarvis, Montreal.
Leghorns—Geo. H. Burgotte, Lawton, N. Y.
Sultans, Silky, A. O. V., Redcaps—Thomas H. Smelt, Hamburg, Ont.
Game and Game Bantams—R. Oke, London, Ont.
Canaries—A. Boulton, Toronto, Ont.
Pet Stock—I. B. Johnston, Toronto, Ont.
Turkeys—James Anderson, Guelph, Ont.
Pigeons—Geo. G. Asam, Detroit, Mich.; Robert Scott, Toronto; W. Tregwin, Toronto; C. F. Wagner, Toronto.
Dressed Poultry—W. R. Graham, Guelph.

Poultry Meeting at Winnipeg.

Mr. A. G. Gilbert, manager of the Poultry Department of the Ottawa Experimental Farm, was an interested visitor at the Dominion Exhibition. He was surprised to find such a small exhibit, but when it was explained that breeders did not care to have their birds cooped for two weeks, was again surprised that the exhibit was so good. The right type of birds were on exhibition, and the few ornamental just sufficient to destroy any monotony.

An effort was made to hold three meetings during his visit, but only one could be held.

Mr. Gilbert spoke of the advance in poultry culture in Ontario during the last few years, from a few hens, widely scattered, to its present position, the second largest agricultural production in Ontario.

Speaking of the type of birds for the farmer, he said they should get a strain that would lay well in the winter, when the price of eggs was highest, and that would lay eggs in the spring, from which could be hatched a chick capable of making good growth, and of making flesh and fat when called upon—eggs in winter, flesh in summer. The fowls most suitable for this purpose are the Plymouth Rocks, Wyandottes, and Orpingtons. There are other birds, but these are specified because they are cheapest and more easily obtained by the farmer.

Eggs for hatching from the two former can be obtained from \$1.50 to \$2.50 per setting. The Orpington is a newer bird, and a little more expensive. Young birds from all of the breeds can be bought soon for: cockerels, \$2.50 upwards; pullets, \$1.50 upwards.

In purchasing either eggs or birds, Mr. Gilbert lays stress upon the purchaser knowing something of the "strain." By "strain" is known the object the bird was bred for. Heavy egg-laying large meat production, beautiful feathers and fine shape, may each be in different birds accidentally, but will be obtained more surely by selection of the breeders for the object desired, and bred for that object. Continuous selection for a time will give the "strain." If a heavy egg-laying strain is wanted, the best layers must be selected, mated with a male from a heavy egg-laying hen, the progeny from this mating again selected. The increase in egg-production by a little care in selection will astonish the breeder.

If the number of birds to be hatched is less than one hundred, Mr. Gilbert advises the use of hens, as being the handiest and cheapest, although if equality of age and size, even with this number, is desired, and certainly for a larger number, the incubator and brooder becomes a necessity. To the farmer making poultry-raising a considerable part of his operations, it is as necessary as the seeder and binder is to the wheat farmer.

To raise the chicks, the most critical time is the first six weeks. Keep them growing. A chick stunted during the earlier period of life never makes the same proportionate growth later. Table waste can be used here to great advantage. Meat scrap chopped fine, stale bread, oatmeal porridge mixed with shorts, vegetables of all kinds, etc., etc., return a better profit fed to chicks than in any other direction, but don't use fat, or food in which is an excess of salt. With reasonable care and feed the youngsters should weigh four to four and a half pounds in four months or less.

The profits upon a hen were declared to be in the neighborhood of two hundred per cent., or two dollars per bird. Mr. Gilbert went into a calculation, with eggs and meat at their very lowest price (even for Ontario), and cost of keep, etc., at their highest, and produced a profit per hen of \$1.05. He quoted Mr. Rankin, an Eastern poultry expert, who declared the profit of a hen to be from \$2.00 to \$45.00, according to the knowledge of the owner.

Moulting in midsummer was recommended, while eggs were so cheap, so that they might get over this period and down to egg-laying before the winter set in. To induce this, remove all males from the flock; confine the hens to runs, reduce their food fifty per cent., or just one-half, for two or three weeks. This stops the egg laying. Now start full feeding again, and add about ten to fifteen per cent. of flaxseed. The hens will start to moult almost at once. There is some necessity to watch them carefully just now, as the flaxseed may induce diarrhoea; if it does, stop the flaxseed for a time.

"What is a new-laid egg?" Mr. Gilbert laid it down, fundamentally, that a strictly new-laid egg must be an unfertilized egg. A fertilized egg under favorable conditions starts germinating within eight hours after being laid, and either continues to develop the chick or to go bad—eight hours after being laid. A fresh egg can never be found behind a barn door, or in a nest. Proper nest, regularity in collecting eggs, and the absence of males from the flock, can be the only guarantee of a strictly-fresh egg.

Results of Co-operation.

The egg trade in Denmark is a very flourishing one, and constitutes one of the principal sources of revenue in that kingdom, increasing from year to year. In 1900 the exports were 332 millions of eggs, representing a value of over a million sterling, which shows an increase of 50 per cent. since 1898; while in 1870 the value of the eggs exported was little more than a thousand pounds. The increase in the production, as well as the high prices realized abroad, is due to the co-operative societies for the sale of eggs, principally to the Danish Society for the export of eggs, founded in 1895, which numbered, in 1901, 30,000 members, and exported more than 60,000,000 eggs. The principle of this society is to export only eggs that are guaranteed fresh, each egg destined for export being marked with the number of the member and bearing the date of laying. Any member who commits a fraud is severely punished. In this way the society has gained a very good reputation, so that the Danish eggs are sometimes sold in England for a higher price than the English eggs.—[Exchange.]

APIARY.

Steer a Straight Course.

It requires a level head and an even disposition to steer a straight course in business. Everything has its ups and downs, its periods of prosperity and of depression. The same may be said of the average man who has not perfect control of his intellect and emotions. Then put a changeable business into the hands of a man who is merely human, and steady management is needed to keep the business running evenly.

Every detail of a business must be made an object of careful study to insure success. Especially must failures be looked upon not as losses to be brooded over and mourned, but as experiences which have been paid for and must be turned to future profit. Wherever there is a failure there are conditions which have worked together to bring it about. The question in every case is, "What are those conditions? Can I control them? If so, how?"

To take a concrete example: Many beekeepers this year have very little honey to show for the year's work. Here is a failure which is felt severely. What is the cause of the failure? The conditions of a honey crop are the condition of the bees, of the blossoms and the weather. The two latter are practically beyond control, but we are almost entirely responsible for the former.

Then, were the bees in good condition? If not, why not? We say it was a very hard winter and spring. Yes, but what mistakes did we make with our bees in preparing for that winter and spring? Had they good queens and good stores? Were they well protected from frost and sheltered from winds without being smothered? These and many other questions must be asked and answered before the apiarist can get the full benefit of the experience for which he has paid.

Besides the accumulation of lessons derived from successes and failures, which we call experience, it is the ability to stick to one thing which makes a man successful in business. To take a further example: There are periods when dairying is very profitable, and everyone buys cows, or pork is high, and breeding hogs are in great demand. Reverses come, when herds are broken up and hogs sold at a sacrifice. Many men continually shift from one thing to another, becoming established in each just after it has passed its prime; while the one who calmly chooses that to which he is best adapted and stays with it will ultimately win success.

MORLEY PETTIT.

Honey Prospects.

The committee, composed of Messrs. H. Sibbald, Claude; C. W. Post, Trenton; W. A. Chrysler, Chatham; John Newton, Thamesford; W. Couse, Streetsville, appointed by the Beekeepers' Association to secure information in reference to this season's crop, have made their report. Compared with that of 1903 this year's crop of comb and extracted honey will only be about 60 per cent. of that of last year. In the west and south districts the crop is poor, and in the north and east fair to good. The severe winter had a very bad effect on the bees. The committee have recommended a scale of prices, which they think represent fair values, viz., for honey in barrels, 7½c. per pound; in 60-pound tins, 8c.; small cans, 8½c. and 9c.; comb, \$1.65 to \$2.25 per dozen.

The committee also gathered some information about the fruit crop. With the exception of apples, which will be fair, the committee believe the fruit crop will be poor.

GARDEN AND ORCHARD.

Grape-growing in the North.

By Mrs. Anna L. Jack.

The late Dr. Hoskins, of Vermont, once remarked to the writer that he had never eaten a ripe Concord grape grown in the Province of Quebec. I assured him at the time that our vineyard of two or three acres had only failed to ripen its fruit one year in ten or twelve, and satisfied purchasers as to ripeness and sweetness.

Many farmers imagine they have no time to devote to the cultivation of the grape, and of late years the profit has been small from a commercial standpoint, but every garden should have its vines, and in the north it is well to select early ripening varieties. Perhaps, of the many sorts, it might be safest to select Duchess (white), Campbell's Early (black), and Brighton (red), as the best varieties for family use. Morden is a good black grape, earlier than Concord, with its good qualities of productiveness and hardiness, and Niagara has about the same qualities, but a foxiness of flavor that is not always pleasant.

In regard to planting the grape in the north, it is best to get two-year-old vines, and they must be cut back to two or three eyes. Set the vines in a slanting position, as it renders them less liable to injury; set them be eight feet apart in the row, and each row eight feet apart. The planting should be from north to south when practicable, as it is best for getting sunshine among them, and the soil best suited is a clay loam that has been worked to a good depth and well pulverized.

Care must be taken that manure does not come in contact with the roots, as it is apt to injure them. Grapevines are gross feeders, and the soil must be rich to give the best results. The ground must be kept clean and free from weeds during the summer and in autumn, after the leaves have fallen, the vines are cut back to two or three eyes.

Summer pruning consists in pinching off the tips of the young shoots after they have grown about four leaves beyond the last bunch of fruit. This must be done as soon as the shoot is long enough, because if the vine is left to grow to a considerable length, and then cut back it checks growth too much at once. This pruning makes the vine stocky, and it ripens the wood better for next season. It is not wise to trim off the leaves in order to have the sun shine on the fruit, as it is often an injury instead of an advantage, and retards the ripening.

Winter protection is very important, and a covering of earth the best material. A shallow trench may be dug, so near as not to injure the roots, and each vine bent down into it, which is not difficult if the vines have been set slanting. It is especially necessary to cover the lower part of the vine next to the roots, as in bending it the bark may become strained, especially in old vines, and the parts exposed to drying winds and hot sunshine are liable to injury.

It is well to keep the earth on the vines in spring as long as there is danger of frost. The best thing to do in case of mildew is to dig out the vines affected and plant others that will not be liable to the disease. Of course it is as well to prevent the trouble as far as possible, by giving free access of air, as closeness and want of air circulation breeds mildew in hot moist weather.

The profits of grape culture vary with the season's crop, as in every other product, and since labor is so scarce, and the price of grapes so low the last few years, it does not seem to be a crop to depend on to get rich quickly. It is work that can be picked up at odd times—more than many others that rush the grower—and there is no occupation more wholesome or interesting than the summer care of a vineyard.

Picking the fruit can be done by girls, and even children soon become adepts in this pleasant work.

In the household the grape is a useful dessert fruit, and can be used freely for several months, if kept in a cool place after picking. Agawam, Duchess and Moore's Early keep well during the autumn, and are of good quality.

Grape juice carefully prepared according to acknowledged recipes, is a strengthening cordial, and there are many ways of preparing the fruit, but none better than to eat it fresh from the vines while the season lasts, and in every farmer's garden there can be planted a few grapevines that will amply repay for care and cultivation.