

wanted to make any progress I would see that there was some correspondence between the birds thus mated. If possible have a couple of breeding pens and let the fowls run alternate days, but when kept for laying only, male birds are not needed.

The principal hindrances in raising fowls are neglect of proper shelter and provision for a change of food. They need variety as well as abundance. Again, they are often overfed, and with food that does not tend to egg-production. Corn, especially in the summer, is not good food for laying hens. If fed this once a day in winter it will answer a good purpose. A hen is like a cow in this respect—you cannot get from her what she has not received. Farther, as in the case of a working horse, it isn't to-day's feed of grain that gives the horse strength of muscle and endurance to labor: it is the weeks of proper care preceding the day of effort. So with the hen, you can't get eggs to-day from to-day's feed. She must have had time to elaborate the hidden store of nutriment supplied by a careful hand weeks before.

Next and equally important is a supply of pure water winter and summer. The almost universal neglect of cleanliness in the hen-house causes the fowls to become infected with lice. Nine-tenths of the chickens that die or are stunted early in life suffer from lice. Movable roosts and nests in the hen-house, whitewash, and sulphur, and Persian insect powder are the means to be employed to keep down these insect pests. The price of liberty in this as in everything else, is eternal vigilance.

The profits lost from lack of a proper care of the droppings are often overlooked. I cannot give much from personal knowledge on this subject, but am credibly informed that a barrel of this material is worth a ton of stable manure. Don't use ashes in the hen house. Dry dust or plaster absorbs instead of scattering the ammonia.

As this is the day of specialties, I believe that poultry-keeping must now take rank as one of the profitable employments for either men or women, and as one of the adjuncts of the farm, which in its aggregate results is productive of very great benefit to the community as a whole.

### *The Apiary.*

In the issue of the *Canadian Bee Journal* of June 22d, the following question was discussed: Does apiculture at this time contain any special attractions—that is, from the dollars and cents point of view, when compared with farming, mart, or other avocations? The tenor of the answers was mainly in the negative, although Prof. A. J. Cook, of Lansing, Mich., gave this answer—"I think it fully 'up with general agriculture, and have facts to 'sustain the opinion.'" We conclude from the answers, that it is not wise now to embark in the business expecting to make a fortune at it, still there is nothing seriously in the way of farmers keeping a few hives, partly to furnish honey supplies and partly for recreation where the inclination leads in that direction.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

### **The Season.**

BY R. F. HOLTERMANN, BRANTFORD, ONT.

Since writing last, the season for No. 1 honey has come and almost past. True, with showers followed by sunshine, thistle will sometimes yield quite a surplus, but present indications are not such, nor does thistle yield much of a surplus one year in five. It will be a matter of surprise to the average stockman that the bee-keeper can identify honey from clover, linden (basswood), thistle and other flowers. This can readily be explained. When clover is in blossom there are but few sources from which the honey may be gathered, and these few yield generally so limited a supply that they are no temptation to the bees alongside of white and alsike clover. Linden comes into blossom about the tenth of July—this year somewhat earlier, which is uncommon. Whilst it is in blossom, and

the atmosphere being favorable to the secretion of honey, bees cannot be induced to gather from other sources. Should these conditions not be favorable, bees will avail themselves of other sources for gathering honey, and the honey may be mixed somewhat. So with thistle, which latter is often blended in somewhat with the linden harvest. Buckwheat honey follows this, and can readily be detected. From the above, all can see by means of any device through which we know, that a certain honey has been gathered during the time a certain blossom yielded nectar in greatest profusion, and that this blossom was sufficiently plentiful to yield sufficient nectar to keep the bees occupied in gathering, we know that such honey is linden, clover, thistle or buckwheat honey, as the case may be. Clover is a clear, light honey, mild in flavor; generally preferred, but not always, as some object to its mildness. Linden is also a light honey, very distinct in flavor and aroma, thick in body, or, in other words, of a high specific gravity, and a honey noted as beneficial for consumptives and those having weak lungs. Thistle honey is medium in flavor and body, and generally mixed somewhat with other honey, therefore, has generally the distinctness of its flavor lost. Buckwheat is dark, of a strong flavor, and classed as an inferior honey; preferred by few in America, but liked more generally by the British.

If in extracting honey, a super is emptied or placed upon the hive at the commencement of clover harvest, and clover yields, we know it is clover honey. There may be an extracting where clover and linden will be mixed, but this will be followed, if the season be favorable for such, by an extracting of linden, and so on. Of course an experienced bee-keeper can distinguish each by the flavor, texture and color.

Our No. 1 clover season has almost passed. As stated in my last article, my bee-yard has been conducted to prevent increase and secure honey. The last month has been an extremely unfavorable one for the secretion of nectar, yet thus far an average yield of 78 lbs. per colony has been secured, with an increase of fifty per cent. True, this is not a high record, yet good when the crop throughout America is put at one-quarter or twenty to twenty five pounds. I expect some yield from buckwheat—last year it gave twenty-three pounds per colony—and to prepare for it have been extracting all the No. 1 honey from supers for the last two days, July 14th and 15th. This is done to prevent the darker and second-class honey from being stored in the same combs with the lighter, when all must be classed as second. Many bee-keepers lose part of the value of their crop by neglecting to do this.

August should again find us preparing for winter; in fact, such preparation should have been made earlier this season. During the honey flow every colony should be furnished with a vigorous laying queen. Any colony having a queen above three years of age should, unless the circumstance be a special one, have it replaced by a young queen. To many the thought will suggest itself, how shall we know this? In reply to this, it can only be known by keeping a careful record of each queen, and when the swarm issues, move such record with the queen. The easiest and best time to introduce a young queen is during the honey flow. If, therefore, there are any old queens, as described above, they should at once be replaced. There is no necessity for buying expensive queens, as good can often be purchased for less money; but be sure you are purchasing from a party who has no foul brood in his apiary. If an apiarist frankly owns he has foul brood in his yard, we must praise his worth, and can, when he is free from it, patronize him with

all confidence. If your bees gather little or no honey this season, do not neglect them. Still give the ventilation and shade and keep them comfortable as before; this will have the effect of decreasing the consumption, which is an important factor between the present time and when they are placed in winter quarters. Be extremely careful not to expose combs of honey or anything with the least particle of honey, as it will attract the bees to rob, and have very damaging and injurious effects upon the bees. It is impossible to see that bees have sufficient stores for winter in August, as there is too much brood in the hive to permit of storage room for honey. Then, too, the needs of the colony before winter vary, and we cannot estimate their need. Hence September is the time to provide colonies with sufficient stores.

P. S.—I have been through parts of Ontario since writing the above, and by the perplexities and mistakes of beginners, one often receives fresh thoughts. The question often asked is, how long shall I endeavor to keep queens laying and brood rearing in the hive? Opinions vary, but generally bee-keepers of long experience do not desire to have brood reared after September 1st. Generally bees will gather enough to keep them laying moderately until that time; if feeding is resorted to at all, and we doubt its advantage, it should be honey diluted, in very small quantities, and at night. The bee-keeper should bear in mind, the good condition of a colony depends not so much upon its numbers, but the healthy and vigorous condition of its occupants, and I doubt if a colony does not wear out more than it gains ground by this stimulative feeding and excitation.

### *Horticultural.*

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

### **Drouth and Fruit.**

BY E. D. SMITH, WINONA.

It has been said, "Eternal vigilance is the price of good fruit." But there is something else wanted also, and that is water. It is true, good cultivation preserves the moisture in the soil to a very great extent, and on proper soil extra cultivation will even nullify the effect of the most prolonged drouth. But such soil is the exception, and not the rule by any means. My beau ideal of a suitable soil for small fruits is one that is springy and remains so all summer. Though underdraining will carry off surplus water, the water rising from below the drains will be carried to the surface by capillary attraction in sufficient abundance to supply the necessary moisture to insure a crop in the worst drouth, if there is good cultivation. What I mean by extra cultivation, is going through once every two or three days with the cultivator. Once a week I would call good cultivation. When we have a drouth like the one we have experienced this summer, lasting since the latter part of April, with only an occasional light shower since, those having suitable locations and giving extra cultivation make money faster than at any other time. The dry weather is a godsend to them, for it parches up the crop of the country at large, and causes high prices, while their crop is as good as at any time. Grapes stand the drouth best, as they have roots all through the subsoil to a great depth; but even grapes are now suffering except at the foot of the mountain or other places favored with constant supplies of water from below. What with short crop and low prices, strawberries did not pay here this year.

Another feature these dry seasons brings prominently to our notice is the need of the large varieties,