

It will be seen that the fuel value of most fresh fruits is relatively small compared with bread and butter, but dried fruit compares favorably with them. The carbohydrates—compounds containing sugar—are the food constituents most abundant in fresh fruits, which are low in protein; the nut fruits, however, supplying this in considerable quantities. It is not only the actual food value of fruit which makes it a necessary part of the diet, but it has a place as an appetizing agency, making more palatable richer food. Canned, preserved and pickled fruits, jams and jellies, have all this effect.

DIGESTIBILITY OF FRUITS.

Experiments have been tried to determine the digestibility of fruits. Chemical analyses were made of fruits at various degrees of ripeness, and green fruit was caused to be eaten in considerable quantities to note its effect on both men and animals. It appears from the results of the experiments that although unripe fruit is undoubtedly often harmful, particularly for children, the danger from such fruit, especially green gooseberries, plums, pears and apples, when eaten raw, is less than is commonly thought, and the effects depend in a marked degree upon individual peculiarities. The green fruit was found to contain the same chemical compounds as the ripe fruit, though in different proportions. The injurious effects of raw unripe fruit, therefore, it appears do not depend upon chemical constituents, but rather the unusual proportions in which the constituents occur, and especially the larger percentage of hard cell tissue, which, if imperfectly masticated, it will readily be seen might be a source of digestive derangement. Possibly the excess of acid in the green fruit is also a cause of digestive disturbance. Cooked green fruit was found to be practically harmless, being especially palatable and wholesome when cooked with sugar.

Bananas should be eaten raw when quite ripe, as then the starch in them has largely changed to sugar, and they are more digestible. As a class, ripe fruits are, as a rule, easy of digestion, and should be used in large quantities by everyone.

PREPARING FOR THE APPLE TRADE.

Mr. R. J. Graham writes us, on his return to Eastern Ontario from the Maritime Provinces, that he expects the chain of six or more evaporating plants on the Dominion Atlantic Railway line, with warehouse at St. John, N. B., to be completed and ready for apples in October. He adds: "We are building this to protect Ontario fruit from damage by frost in winter shipments. We have lost, ourselves, very heavily this past two winters by having apples frozen in transit to seaboard. We are building the most modern, up-to-date cold-storage that money will secure. This plant, we expect, will cost us \$135,000, and we will have capacity for storing 85,000 barrels of apples. We propose to not only store apples for dealers, but also for growers, acting as sales agents for their account, if desired. We will also supply the barrels, repacking the apples, and making advances on same, if required by the grower. We have excellent rooms built on purpose for repacking. We have direct connection with Allan Line of steamers, by which we can convey apples by cable wire direct from the storage to the steamer, so that apples may be packed right up till the steamer sails, and put on board in excellent condition. We have practically fireproof building and low insurance rates.

"The evaporating plants referred to are an experiment in the Annapolis Valley. We hope the growers will patronize them. It is our intention to co-operate with the producers of apples and assist them in finding profitable market for their fruit, and it is our business to see that this fruit reaches destination in first-class condition."

A PARASITIC FRIEND.

Editor "The Farmer's Advocate":

The specimens sent by Mr. J. M. Smith, of Kent County, which were found on barley sheaves a couple of days after cutting, and which were supposed to be the eggs of some insect, are the cocoons of a minute parasite. It is an Ichneumon fly, of the genus called *Microgaster*. These insects are amongst our best friends. The grubs feed upon caterpillars of various kinds, and, when mature, leave the body of the worm whose death they have caused, and form little silken cocoons in a mass upon the grain where the worm has been feeding, or oftentimes on fences or weeds in the immediate neighborhood. These cocoons are now empty, the minute four-winged bees having escaped and gone elsewhere to lay their eggs. Mr. Smith need have no fears regarding these things, and the more he hears of them the better assured he may be that they have been performing a good work.

CHARLES J. S. BETHUNE,
Ontario Agricultural College.

The New York Experiment Station, Geneva, N. Y., will celebrate its 25th anniversary on August 29th.

APIARY.

PREPARING AND SELLING HONEY.

Time and again—and again—have I noticed the slipshod methods of preparing comb honey for market in vogue among ordinary farm beekeepers. A few days since I entered an ordinary grocery store, and spied honey in a showcase that was anything but inviting in appearance to the purchaser. The fact that it sold at all was due to the same quality of honey being on sale in every other store in that town. In other words, better honey could not be had elsewhere in this city.

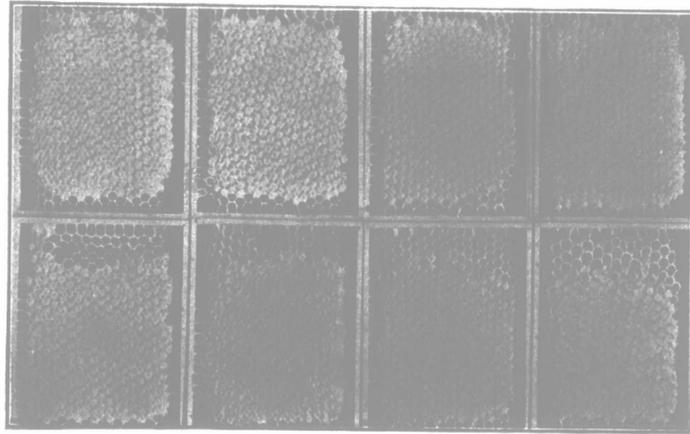
If one asks those that produced and put up such honey why they do not take more pains to have it of inviting appearance, the answer is that it does not pay or that they have no time for the extra labor necessary.

Now, I am a "farm" beekeeper too, yet find time to scrape the sections clean of propolis, grade the honey, etc. But does it pay? Of course, or I would not do it every year. But listen: It would not pay if I would sell the honey to those storekeepers that purchase such poorly put-up honey. They make no distinction in price between properly graded and prepared and improperly put-up honey.

To make clear what I have said, I will cite a case: To my question as to how much he was paying for honey, a storekeeper answered twelve cents. "Cash?" I asked. "No, in trade. I couldn't pay more than ten cents per pound cash," was his answer. I afterwards sold the honey for fifteen cents per pound in a distant market. The transportation charges did not amount to quite three-fourths cent per pound of honey. I therefore had over four cents per pound as compensation for the labor of putting up the honey properly.

Thinking the foregoing will be an incentive to others to prepare honey properly for distant markets, I will give grading rules and general directions for doing the work.

The best grade is known as "fancy." All sections that are well filled have straight combs, which are well



Top row, fancy grade honey; lower row, number one.

fastened to all four sides of the wood, and the comb surface of which is unsoiled by "travel-stain" or otherwise, and that have all the cells sealed except the row of cells next the wood, and an occasional cell, belong to this grade.

The second grade is designated as number one honey. To go into this grade, the comb must be fairly straight and the sections fairly well filled too. One-eighth part of the total surface can be unsealed or soiled, or the entire surface slightly soiled.

Number two honey must have three-fourths of the total surface filled and sealed.

Any sections below the number two grade should not be sent to a distant market. The comb had better be cut out and sold as "chunk honey" around home. Yes, even number two honey does not sell well in a distant market, so one should see first whether this grade cannot be sold in the home market for as much, or more, before sending it away.

In addition to grading honey, it must also be classified according to color, using the terms white, amber and dark. To illustrate, there will be fancy white, number one white, fancy amber, etc. The wood of the sections must also be well scraped of propolis. If it's not done, a fancy price will not be secured for fancy honey.

The scraping can be done with an ordinary butcher knife, if the cutting edge is fairly straight. I have even used sandpaper to clean the wood, so it had a fine inviting appearance.

The twenty-four section cases are most used, and honey dealers generally prefer honey in them to having it in odd-sized, homemade cases. They say that retailers buy standard-sized cases more readily than odd-sized ones. The weight of the empty case and the weight and the grade of the honey should be put on each case; but honey dealers do not want the producer's name on cases. Only one grade should be put in a case.

The cases must be crated when sending to a distant market. A crate may be made to hold from four to

nine cases. I put old paper, or straw, or coarse hay on the bottom of the crates. Paper is also stuffed between the cases and the insides of the outsides of the crates.

Comb honey must be handled very roughly by the trainmen to break when crated in the described manner. To facilitate the handling of the crates, handles should be nailed on their sides. A caution card should be put on each crate.

Now, here is something that is of importance: If the cases are so packed in the crates that the glass is exposed, railroads charge one and one-half first-class rates; if it is not exposed, the honey will go at first-class rates. I pack the cases so the glass sides are in the center of the crates.

The rating of a firm with which one intends to deal should always be ascertained before entrusting them with the honey. One's banker will look up the rating of any firm, generally without charging anything for it.

Wisconsin, U. S.

F. A. STROHSCHEN.

THE FARM BULLETIN.

EIGHT THOUSAND LIVE ANIMALS.

There are annually on view at the one time at the Canadian National Exhibition, Toronto, upwards of eight thousand live animals, to wit: horses, 1,200; cattle, 900; sheep, 700; swine, 600; dogs, 1,500; poultry and pet stock, 3,500. At all other exhibitions the live stock is divided into classes, one particular class having certain days. Thus it is impossible, even at the biggest shows, to see so many animals at the one time. In fact, Toronto is almost unique in including among its features dog and cat shows. Even at the famous Royal Show in England, more than 2,000 animals were never known to be on exhibition simultaneously.

FARMERS' TENT AT TORONTO EXHIBITION.

The Department of Agriculture will, as usual, have a

tent on the Exhibition grounds in the vicinity of the Women's building—the same location as for several years past—for the use of those who wish to consult representatives of the Department regarding either Institutes, Live Stock, Agricultural Societies, or other matters under the direction of the Department. Representatives of the different branches will be in attendance throughout the second week of the Fair, and it is hoped that all farmers and others interested in agricultural work will make it a point to call at the tent and consult with these representatives.

This notice is not only for the officers, but for the general membership of the Institutes. Information as to the needs of the different localities, and subjects which should be taken up at the meetings to be held next winter, will be much appreciated.

The tent will be open for the convenience of all interested in agriculture, and it is to be hoped that many will take advantage of the accommodation afforded by the Department. GEO. A. PUTNAM, Superintendent.

FAIR DATES FOR 1907.

Aug. 23-30—Iowa State, Des Moines.
Aug. 26 to Sept. 9—Canadian National, Toronto.
Aug. 29 to Sept. 6—Detroit, Mich.
Sept. 2-14—Dominion Exhibition, Sherbrooke, Que.
Sept. 6-14—Western Fair, London.
Sept. 9-13—Indianapolis, Ind.
Sept. 9-14—New York State Fair, Syracuse.
Sept. 13-21—Canada Central, Ottawa.
Sept. 14-21—Fredericton, N. B.
Sept. 17-19—Guelph.
Sept. 18-20—Woodstock.
Sept. 19-20—Brampton.
Sept. 25 to Oct. 3—Halifax, N. S.
Sept. 27 to Oct. 5—Springfield, Ill.
Oct. 8-11—Charlottetown, P. E. I.

J. B. Thomas, Covent Garden Market, London, Eng., writing us re the apple season, 1907-1908, says: "The home crop, which in the early spring promised to be so favorable, is likely to prove disappointing, and the same may be said of the crops in the different fruit growing centers on the continent. American and Canadian apples are an indispensable necessity of our trade, and prices depend more on the quality and importance of the shipments which reach our markets from your side than on the state of the crop here. Reports from the United States and Canada indicate that this year there will only be a fair crop of apples available for shipment—probably not equal to that of last season—and shippers may, therefore, reckon on a good average season, always providing that the fruit is good, and that the right varieties are sent."