

have fallen, or in spring before normal growth begins. They are often first seen upon the ends of watersprouts. This tip growth is sometimes little pronounced, and then only a practiced eye will detect it.

"The third mark of the disease is the pushing-out of slender, stiff-leaved, yellowish shoots from the body of the tree or the sides of the large limbs. In pronounced cases, or when the tree is about to die, these shoots may branch into close, bunchy tufts. These symptoms are frequently wholly absent in New York State throughout the entire course of the disease.

"In its final stage the disease is marked by small and slender growth of all new wood; small narrow yellow or reddish foliage, and occasionally by a great profusion of slender and branchy growths in the center of the tree.

"As a rule, yellows trees die in five or six years from the first visible attack.

"The yellow and stunted condition following neglect or the work of borers (both of the common borer and the pinhole borer) is often mistaken for yellows.

"Extirpation of all affected trees—root and branch—is the only means of keeping the disease at bay. This work should be prosecuted vigorously and systematically, and with the full support of the whole community.

"Trees may be set in the very places from which yellows trees have just been removed, with entire safety. The disease is readily communicated to nursery stock by affected buds, even by buds from those branches of affected trees which do not show any signs of the yellows.

"Pits from affected trees, when viable, may be expected to propagate the disease."

W. T. MACOUN, Horticulturist.
Central Experimental Farm, Ottawa.]

PRACTICAL POINTERS ABOUT BEE FRAMES.

G. L. L., Prescott Co., Ont.:—"I hived a swarm of bees, and in about nine or ten days examined them and found that they had connected the frames by building their combs 'zigzagging' from end to end of the same, and that, when attempting to separate them with a knife, the combs full of honey, pollen and larvæ, fell to the bottom of the hive in a heap, and the following day the colony left for the woods. It was again caught and hived in a new hive, and in two days examined and found that the frames could not be removed, owing to pieces of comb having fallen across their bottom bars, and that while the bees were building comb from the top downward, they were also building it from the bottom upwards.

"1. What is the matter with my frames?

"2. Is it absolutely necessary to put in foundation sheets?

"3. Do you suppose they were nearly swarming and that the disturbance only hurried them off?

"4. My super frames are four inches high, with an upright in the middle. Will I require foundation for these spaces, which are about 4 x 8 inches?

"5. How soon should the super be put on after the swarm was caught?

"6. Where can supplies be procured, and what is the probable cost of a small extractor, a smoker and foundation?"

[1. As far as the circumstances stated are concerned, there is nothing the matter with your frames. The combs dropped in the first instance because, when you attempted to separate the frames, you had to do considerable cutting and breaking of the combs, which must have partially destroyed their support, and being tender, because new and heavy with honey, pollen and brood, they fell. In the second case, I am not sure what made the combs fall, but I am guessing they had become overheated. However, if you had used good brood foundation, running 5 or 6 sq. ft. to the pound, wired into the brood frames, and well fastened to their top bars, and had your hive been painted white, protected from the sun and had an entrance clear across the front $\frac{1}{2}$ to $\frac{3}{4}$ inch deep, your combs would not have fallen, as stated; and if, in addition to the above, your hive had stood level, the bees would have built their combs straight and even in the frames.

2. It is absolutely necessary for the frames to hang plumb, and to use some kind of a foundation guide if you wish your bees to build their combs straight and even in the frames. A beginner should use full sheets in all his frames, both brood and surplus. A success can, in many cases, be made by using strips of foundation, about $\frac{3}{4}$ inch wide, and fastened to the center of the top bars of the brood frames; but only persons of some considerable experience should attempt this.

3. No. A swarm, for various reasons, will often leave its hive a day or so after being put into it, and especially if disturbed by the breaking down of its combs, as described. It is not often, however, that they will leave it as late as ten days after being hived, but such cases are by no means exceptional under such circumstances as mentioned.

4. Yes.

5. The same day, as soon as hived.

6. Beekeepers' supplies can be had of W. A. Chrysler, Chatham, Ont.; Goold, Shapley & Muir Co., Brantford, Ont.; R. H. Smith, St. Thomas, Ont.; and for the Heddon or case system of handling bees, of A. E. Hoshal, Beamsville, Ont. An extractor, such as you mention, would cost from about \$7 to \$9; a smoker, \$1 to \$1.60; brood foundation, 45c. to 50c. per lb., and section foundation, 55c. to 60c. per lb.

Lincoln, Co., Ont.]

FITTING A BULL FOR SHOW.

E. B. PARSONS, Stanstead Co., Que.:—"What would be the best ration for my twenty-months Ayrshire bull to fit him for showing this fall?"

[Regarding the fitting of the Ayrshire bull for the fall shows, unless he is in fairly good shape now there is little enough time to put a showing bloom on him. The idea is not so much to get him fat as to have him fresh and thrifty, with the brightness of eye and mellowness of hair and skin of a horse ready for a race. To this end he should not have heavy grain-feeding, nor such as corn meal at all. While a number of suitable combinations of foods could be made, we would recommend as grain one part each of pea chop and oil cake, and two parts each of oat chop and wheat bran. This is a safe food, and can be fed liberally after he has become accustomed to it. Aftermath clover, large enough to mow, and allowed to wilt a couple of hours in the sun, then run it through a straw-cutter, would do well to mix the chop with, or bright clover hay would do well. He should get from six to eight quarts of the chop per day after a couple of weeks' feeding. He should be kept in during the day in a cool, darkened place, and allowed out in a paddock or field at night, away from other stock, so that he will remain quiet and contented. Fresh water and salt should be kept before him constantly, and he should have liberal daily grooming with brush and flannel, so as to put his skin right. His hoofs should be trimmed into natural shape and his horns cleaned up before the show. If the bull is of typical Ayrshire form and has never been stunted, he should with the above treatment be made a probable winner in good company.]

CULTIVATION AND PRUNING OF RASPBERRIES.

E. S., Oxford Co., Ont.:—"Will you kindly give me some information on the cultivation and pruning of the raspberry?"

[A raspberry plantation should be set in spring as early as there is warmth in the land. The stock set out should be vigorous suckers of the previous year's growth, taken from productive plots of good variety. The land to receive the plants should be prepared in the previous autumn by deep and thorough cultivation and liberal manuring. The plants should be set in rows six feet apart and four feet apart in the rows. The plants should be trimmed back to about one foot in length at planting. The ground between the plants should be kept cultivated on the surface during the fore part of the season, and then mulched with damp straw to keep down the weeds and preserve moisture. The following spring the canes may be tied up to stakes loosely with soft string or strips of cotton, but this is not generally considered necessary. The ground should be cultivated as during the previous season, or a mulch may be applied soon after the fruit is set on the canes. After the fruit has been harvested, the old wood may be removed and burned, or left till the fall or following spring, and the latter is probably the better course. The tops of the canes should be cut back in the spring, leaving them about three feet high. They will thus grow stronger, and will be less liable to fall down with their own weight. It is wise to thin out the canes each spring to four or five vigorous canes in a hill or group. The soil should be kept in rich condition, and when the plantation shows an inclination to run out, a new one should be set out and some other crop grown on the ground for a few years. By renewing the plot in this way every five or six years, good results should be realized, if general, intelligent care is given to all the details of the work.]

VIRGIN HEIFER GIVING MILK.

C. A. M., York Co., Ont.:—"In my herd is a heifer about eighteen months old, which has not been suckled by self or other cattle. Nobody has ever milked at her, and she is not in calf, yet she is making bag. Her milk is rich-looking and good color. What would cause the above, and what would you advise me to do?"

[It is no uncommon circumstance in good dairy herds for heifers to develop udders and give milk for months before calving. A number of such cases have come beneath our personal notice, but we cannot determine the cause of the premature lactation period. We have it on good authority that a heifer belonging to one of the FARMER'S ADVOCATE subscribers gave milk that produced 200 pounds of butter before having her first calf. We would advise milking the heifer, and breeding her when the proper time comes. She will likely develop into a good breeder and a good milker.]

STRAYED LICE.

On a recent date a small glass vial was received at the FARMER'S ADVOCATE, containing a number of very minute vermin. No letter has yet been received concerning the consignment, but we judge they were taken from the bodies of live stock, of which class we cannot determine. If our surmise is correct, we would recommend that the infested animal be given repeated washings with one or other of the commercial dips advertised in our columns. The consignor would confer a favor by writing us of the prey of the lice.

HORN FLY TREATMENT WANTED.

A. MCL., Renfrew Co., Ont.:—"As you are supposed to know everything, can you tell me what will be best to spray the cows with to keep the horn fly off them?"

[See FARMER'S ADVOCATE, July 15th issue, page 403.]

LEAKING WATER TANK—OX-EYED DAISY.

J. S. MCG., Hastings Co., Ont.:—"1. I built a large elevated tank of 2-inch pine plank last summer, and it leaks ever since. I put in shorts, and failed; then lime, and failed. Now, I hope the ADVOCATE will be so good as to help me out of the difficulty. 2. What is the best means of exterminating wild daisy?"

[1. If the planks of the sides and bottom of the tank were properly sized and put together, with paint at the joints and firmly hooped, no water should get through, especially after the wood became saturated. It is not an easy matter to prescribe in such a case without some knowledge of the cause of the leak. We would recommend, however, that the water be let out, the tank allowed to dry for a time, tighten the hoops, and then fill and cover all the cracks and seams with hot pitch. It may be necessary to stuff tarred oakum into the larger crevices.

2. The wild daisy, or ox-eyed daisy (*Leucanthemum vulgare*), is a simple perennial which grows from one to two feet high, bearing large yellow-centered flowers with white rays. It infests all kinds of crops, and it also grows where the land is not cultivated, as in permanent pastures and in by-places generally. It is most difficult to eradicate in permanent pastures and meadows, and especially as they grow older, since the roots of the daisies then become much interlaced with those of the crops. It is propagated by means of its seeds, and is frequently distributed among the seeds of timothy and clover. As it infests more particularly grass land, it is well to drop meadows out of the rotation, as far as possible, until infested fields have been dealt with. In the case of meadow land infested with the weed, pasture it until the middle of June, then plow it deeply, and sow with rape in drills, taking pains to cultivate the rape carefully, so as to make it a cleaning crop, and the rape will come in for fall pasture for cattle or sheep. It may be necessary to follow the rape crop with a crop of corn or roots that would be cultivated during the summer. In dealing with a grain field, plow the infested field lightly after harvest, and again deeply just before winter. In the interval give the soil two or more harrowings to induce the daisy seed to germinate. In the spring follow this preparation with a hoed crop or summer-fallow, and if necessary with another hoed crop. During the time of farming without meadow, corn, millet and early-cut rye or oats may be used for fodder. It should be the aim to facilitate the germination of the weed seeds in the soil, and then destroy the young plants before they produce seed. The plans we have mentioned are such as will surely destroy the weeds if they can be carried out thoroughly, but they may not suit certain men as well as some others that may be quite as effective. We invite those of our readers who have cleared fields of ox-eyed daisies to write us fully how they did it, for the benefit of many anxious readers.]

OPEN WOUND.

H. D., Northumberland Co., Ont.:—"1. I have a horse that was cut by overreaching last spring, and it has not healed up yet, and is some lame on it. It still discharges a little at the back of the hoof. What would be best to apply to it?"

"2. There is a small blue fly on the elm trees, that collects on the leaves, causing them to turn in, and by appearances will kill the tree. What would be best to destroy them?"

[1. We presume the wound cannot discharge freely on account of its situation, which is making it slow to heal. It should be thoroughly syringed out with warm, boiled, soft water and a little castile soap or a few drops of carbolic acid in the water, and then given a mild blister with cantharides, 1 part to 12 parts of lard. When on twenty-four hours, wash off and commence using white lotion made of one-half ounce each of sulphate of zinc, sugar of lead, and pulverized alum, dissolved in one quart of water. The wound should be kept clean and the lotion applied two or three times daily until healed. The horse should be fed on laxative food, such as grass and a little bran, so as to keep his blood right.

2. Without specimens of the insect, I can only say that it is probably a plant-louse which injures the leaves by sucking the sap by means of a slender beak inserted in the epidermis. The remedies against plant-lice are kerosene emulsion, whale-oil soap solution, and tobacco and soap wash, the receipts for which are given in the spraying calendar published in the FARMER'S ADVOCATE for April 1st. Either of these mixtures should be applied with a spraying pump and nozzle well under the leaves. The best time for the application is early in the spring, as soon as the plant-lice begin to appear.

J. FLETCHER,
Central Exp. Farm, Ottawa. Entomologist.]

SHOWS AND SHOWING.

Fairs of 1899.

CANADA.

Stanstead Live Stock, Stanstead, Que.	Aug. 23 and 24.
Industrial Exhibition, Toronto	Aug. 28 to Sept. 9.
Dundas County, Morrisburg	Aug. 29 to 31.
Eastern Exhibition, Sherbrooke, Que.	Sept. 4 to 9.
East Elgin, St. Thomas, Ont.	" 6 " 8.
Western Fair, London, Ont.	" 7 to 16.
South Lanark, Perth, Ont.	" 11 " 13.
Kingston District, Kingston	" 11 " 14.
Quebec Exposition	" 11 " 16.
New Brunswick Provincial, St. John	" 11 " 20.