

the planting in summer that too much water cannot be used, because of the warmth of the soil. After the soil and water have well settled, say in four or five hours, fill in the remainder of the soil required, place a mulching of cut grass or something similar around the roots, and probably nothing more will be required. Should the tree be larger than about six feet in height, a sprinkling of water at night for a few nights would be of benefit to it, but generally this is not required.

The character of the season has much to do with the success of August planting. The latter part of the month here, which is the time preferred for the work, is usually warm and moist. Should it be excessively hot and dry, with a likelihood of its continuance, it is better to wait a week or two, or until the great heat abates, as evaporation from the foliage of a transplanted tree is very great at such times.

A great deal of planting could be satisfactorily done in summer and fall, and with more pleasure than it brings in spring, when every one about a place has more to do than can be well accomplished. —Joseph Meehan, in *Country Gentleman*.

ENTOMOLOGY.

Another Warning re the San Jose Scale.

To the Editor FARMER'S ADVOCATE:

SIR.—After a visit to another orchard infested with San José scale in Lincoln Co., Ont., and noting the astonishing rapidity with which this insect has multiplied and is breeding in infested areas, I feel compelled to again call the attention of farmers and fruit-growers through the columns of your paper to the gravity of the situation. Some two or three years ago there was doubt expressed by entomologists that the San José scale would endure the rigors of the Canadian climate, even in the southernmost portions of Ontario. There is now undoubted evidence that the insect has been in the Province for three and possibly four years. That it has adapted itself to our conditions and is apparently enjoying the situation is fully evidenced by the fact that it is now breeding so freely in infested localities. In an orchard which I examined last week I found multitudes of scales of the first brood firmly set on fruit, young wood and leaves of plum trees. A single half-grown plum carried 400 young scales. One leaf, by careful estimate, had on its upper surface fully 4,000 scales, and the examination of a female scale with a high-power microscope showed her to be carrying and ready to give birth to from 40 to 50 young. It is probable with favorable conditions this year that there will be three or possibly four broods in Southern Ontario. At the rate which they are now multiplying one infested tree would be sufficient to stock a whole county. The situation is indeed a serious one, and no effort should be spared to impress upon fruit-growers and farmers the necessity of inspecting their orchards and fruit trees immediately. Although the insect is somewhat inconspicuous, yet if present in considerable numbers its injurious effects are readily noted in the abnormally gnarled and stunted appearance of the infested trees and the incrustated condition of the bark. Growers should examine with care all stock received from the United States during the past three years, and particularly stock which has come from New Jersey nurseries, notably the Parry and Lovett nurseries of that State. The best advice is, undoubtedly, to cut down and burn all infested trees. Growers may think this a great hardship, but it is certainly practising the wise maxim of "a stitch in time," and they are acting not only in their own interests, but in the best interests of their neighbors and of the community in following this course. All trees adjacent to others which are infested, but upon which the scale has not been found, should be sprayed with kerosene emulsion immediately, and this fall after the leaves drop should be treated with a strong mixture of whale oil soap and water. Suspected specimens should be sent in for identification. A bulletin recently issued by Prof. Pantan, of Guelph College, will be of much assistance in guiding fruit-growers in their search for this minute and dangerous pest.

JOHN CRAIG, Horticulturist.

[NOTE.—The above subject was also very fully dealt with by Prof. Pantan in the FARMER'S ADVOCATE for July 1st, page 297.—EDITOR.]

APIARY.

No 7.—Cessation of Honey Flow—Surplus Bees as Consumers—Robbing Moth, etc.

BY A. E. HOSHAL, LINCOLN CO., ONT.

With the third or fourth week in July ended the honey harvest, which began about the second week in June, and those who failed to obtain a honey crop then must now wait another year before the opportunity for obtaining such is presented again. In the few exceptional localities where buckwheat and fall flowers are abundant, bees will continue to work, but it is best that the product from these sources should be allowed the bees themselves for breeding purposes and winter stores, so that they may be in the best of condition for wintering and consequently to catch the honey flow from clover and basswood the season following, rather than taken from them and placed on the market as a second grade honey.

During August there is but little work to be done in the apiary, and it is but little that the bees do themselves; in fact, they do not generally gather sufficient to supply their present needs, and hence have become in reality consumers instead of gatherers.

There are two ways in which the apiarist can have his bees spend their working energy: (1) In brood rearing, (2) in honey gathering. To force the working energy of our bees into brood rearing while the honey flow is on in June and July, by allowing the queen all the comb she can fill with brood, is but to waste the working energy of our bees in brood rearing at a time when it should be spent in honey gathering, to bring into existence a large force of bees when they can only be consumers in August instead of honey gatherers in June and July. From the time the queen lays the egg until the young bee is ready to go to the field is nearly five weeks. Now, the practical part I wish the beginner to take from all this, is that he should never expand the brood chamber of a hive in order to give the queen more room to lay after five or six weeks previous to the close of his honey flow in July. Whatever space in the hive is occupied with brood on the first week in June, confine the queen to that throughout the whole of the clover and basswood honey flow following.

All surplus honey which has not previously been removed must be taken off the hive as soon after the close of the honey flow as it is ready, but because of the honey dearth which follows, if there is not sufficient honey in the brood chamber of the hive (and if a colony has been properly worked there will not be) to supply the requirements of the colony, then sufficient of the surplus honey should be allowed to remain on the hive to supply the colony's needs until it is fed for winter, about the twentieth of September.

Do not attempt to increase the number of your colonies in August, but rather move the weak and queenless ones together and unite them, destroying the inferior queens. Reduce as soon as possible your apiary to the number of colonies which you intend to carry through the winter, so that they will not have to be disturbed, especially their brood chambers, late in the season, and the bees will have plenty of time to get their stores and combs arranged to their liking for winter.

When there is no honey to be gathered the disposition of the bees is to rob whenever an opportunity is presented, and August is one of the worst months for this. The best cure for robbing is never to allow it to get started; truly "an ounce of prevention is worth a pound of cure." In order to do this never leave any honey about where the bees may gain access to it. In handling the bees be scrupulously careful not to leave uncovered for a moment any combs or hives which are not protected with smoke. Because of the disposition of the bees to rob in time of scarcity, and the consequent difficulty in handling them at such times, we should plan as far as possible to have everything requiring handling done while the honey flow is on and it can be done with ease. Colonies which are queenless, and those which are weak, are the most liable to be robbed. All such should have their entrances contracted at once, and soon as possible be united with each other or some other colonies. If when working among the bees the robbers become bad and follow about the yard it is best to quit work for a while. If, however, a colony must be opened for some purpose, then carry it inside where robbers cannot get, and do so, closing it up again before replacing it on its stand. Some place a movable tent over the hive where it stands before opening it, but this I do not recommend, especially if a hive is light and readily movable, as it should be.

The moth is to some who are inexperienced, and have black bees, quite a menace. It usually begins its work early in August, sometimes ending with the destruction of the colony in the fall. The remedy for this is to keep nothing but Italian bees or those which are crossed with them. Those who recommend moth traps, or some form of hive as moth proof, either do not understand what they are talking about or are trying to deceive.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Legal.

THE RIGHT OF A PATENTEE.

C. F., Halton Co., Ont.:—"Would you kindly inform me in next number what are the legal rights of those holding patents. Could they prevent one from making a machine from their pattern and running it for their own benefit?"

[The gist of the Canadian patent law is contained in the following clause, which is a plain negative to the question of our enquirer: "Every person who, without the consent in writing of the patentee, makes, constructs, or put in practice any invention for which a patent has been obtained under this Act or any previous Act, or who procures such invention from any person not authorized by the patentee or his legal representatives to make

or use it, and who uses it, shall be liable to the patentee or his legal representatives in an action of damages for so doing; and the judgment shall be enforced and the damages and costs that are adjudged shall be recoverable in like manner as in other cases in the court in which the action is brought."—35 V., C. 26, S. 23.]

Veterinary.

WAS IT TUBERCULOSIS?

F. M., Frontenac, Ont.:—"I lost a cow this spring with some of the symptoms of tuberculosis. She had no cough or wheezing, began to fail very gradually, appetite fair for about two weeks but failed in flesh and milk. After about two weeks longer died suddenly. A large amount of brownish water filled the cavity about the lungs. What would you call it?"

[The identity of the disease could only have been established by a post-mortem examination conducted by a competent professional veterinarian. The symptoms were not unlike those of some forms of tuberculosis, which is not always confined to the lungs nor accompanied by a cough, but may be found affecting the bowels, liver, kidneys, uterus, or udder. It would have been well to have tried some simple treatment, such as that prescribed in FARMER'S ADVOCATE for July 15th, page 318.]

DIARRHOEA IN CALVES—LAMB AILING.

J. W. C., Brant Co., Ont.:—"I have a calf six months old which has had diarrhoea and indigestion for some time. It bloats up quite often. I got some powders from a V. S., but they did not cure it. Have given it salts and linseed oil. It will take the bloat down, but in a few days it will return. Have stopped diarrhoea with essence of rennet, but it will bloat every few days in spite of all I can do. Is getting very thin. It had milk up to three weeks ago. Have changed to water now, but can see no difference in what I feed. It runs on pasture all the time.

"2. I have a lamb which seems to be stiffened up so it can hardly walk. When you try to catch it it will start to run, and tumble on its side with its legs straight out, and will lie for a moment and get up. Eats and chews its cud all right. What is the cause, and what can I do for it?"

[1. Diarrhoea in calves is generally the result of indigestion brought on by feeding too much milk at a feed when young or by giving the milk cold. The milk should always be warm when given to the calf, and it is much better to err on the side of giving it too little than too much milk. When the first indications of diarrhoea are noticed the quantity of milk should be reduced, and a dose of castor oil administered. This will generally stop the trouble. In this case it has become chronic, and is difficult to deal with. We would give castor oil first, say 1½ oz. or 6 tablespoonfuls; then give warm milk or warm water and milk in small quantities. After this give common soda, 1 teaspoonful in water once a day for three days, and lime water, 1 ounce or 4 tablespoonfuls, for a few days. Keep the calf in a dark, cool, dry box stall; give a little dry bran and whole oats, and a little good clover hay. Keep box clean and well bedded.

2. Give the lamb a dose of raw linseed oil, or castor oil, say 4 tablespoonfuls. If you have rape turn it in there. Rape often has a good effect on such cases.]

BLIND STAGGERS.

P. J.:—"I have a valuable mare in good condition. Some five years ago she had an attack of blind staggers, and had no signs of it again until this spring, about a month ago, when she had quite a bad turn. Would you kindly let me know, at your earliest convenience, if there is any cure, and what is the cause?"

[There is no cure for confirmed megrims, or blind staggers. It is due in most cases to a badly-fitting collar, which obstructs the circulation of the blood to the head, and so produces vertigo. For immediate treatment give a dose of purgative medicine, and have the collar fitted to the shoulder by fresh padding, and be sure that there is sufficient room to pass your hand down between the channel of the neck and collar. In confirmed cases the disease may arise from the presence of tumors within the brain cavity. DR. WM. MOLE, M. R. C. V. S.]

NOTE.—Such cases are also frequently due to indigestion, the result of overfeeding, and for such a less generous diet should be given, and one tending to relax the bowels by frequent mashes, and a general tonic treatment such as bicarbonate soda, 1 oz.; pulv. gentian, 1 oz.; and pulv. nux vomica, 2 drams. Divide into 12 doses, and give one night and morning. Three times weekly give one dram potassium iodide and 2 drams bromide in feed.—EDITOR.]

POLYPUS IN COW'S TEAT.

G. A. H., Grey Co., Ont.:—"I have a valuable young cow. Soon after calving there got something wrong with one of her teats; the milk did not come down right when milking. I can get it with a tube. She has failed some in her milk. Please let me know what is best to do for her, and oblige."

[Apply the following ointment to the teat once a day, and use great care in passing the tube, which must be kept very clean: Potassium iodide, 1 dram; iodine crystals, ½ dram; lard, 2 ounces. A polypus has formed in the teat, and must be absorbed.]