

that they will not be crowded as they grow larger. It must be well fitted together, so as to be perfectly rat-proof and the roof water-tight, as dryness is as essential for a chicken's health and comfort as man's. Ventilation is also necessary, and sliding windows, with fine poultry netting on the outside, are the simplest arrangement.

When different kinds of poultry are to be housed, partitions should be put in to keep them apart. The convenience of a place like this cannot be realized until one has tried it, and in most cases the value of the poultry lost in one season will defray the cost.

Roosting in the same filthy coops night after night is not only a source of disease, but greatly retards the growth of young fowls, for if they are covered up closely enough to keep out prowlers, then the air becomes so laden with poison that in breathing it into their lungs a healthy action of these and the other organs is impossible; and lice being the companion of filth, from these two sources most of the diseases of poultry spring. There is a cause for everything, and when a sick fowl is noticed, destroy it and look for the cause. Examine the perches—they will be found covered with the little mites that attack the fowls at night and render them weak and debilitated and an easy prey to disease. Attend to these quickly with coal oil and brush, and have the henhouse cleaned. Remove all the old truck not required. Perches, nests and water vessels are all the furniture required in a henhouse, and these need to be kept scrupulously clean.

I should have emphasized the fact that the roosting shed for the chickens must be entirely separate from the henhouse, as nothing is more injurious for them than to be mixed up with the old fowls. Have it placed in a situation convenient to their runs, and it affords them a shelter during heavy rain storms.

If chickens have the run of a good large orchard they usually thrive well. It is better for them than staying around the barns, as it is cool and shady and they have better shelter from hawks and crows, and they can pick up quantities of insects that are so injurious to the trees. Evergreens also form excellent shelter for them when the hawks are on the watch, as they can run under cover of the thick branches and are safe. People who keep white fowls usually lose more chickens than those who have the dark ones, as they are so easily seen by their enemies hovering overhead.

Keep the chickens steadily growing up to maturity. A stunted chicken never makes a good fowl. Feed regularly, house them carefully, and keep them clean, and success will be the result. Close observation and prompt action—no put-off—are what is needed to help towards success in raising poultry. P. J. C.
Huron, Ont.

GARDEN AND ORCHARD.

The Ontario San Jose Scale Commission.

(Continued.)

Beginning on the 3rd of July, the San José Scale Commission held two sessions daily at points taken in the following order: St. Thomas, Chatham, Blenheim, Guild's, Leamington, Kingsville, Amherstburg, and Windsor.

Except at Chatham, Blenheim, Guild's, Kingsville, and one farmer at Leamington, the witnesses had not had any personal experience in combating the insect, but valuable information was obtained relating to valuation, compensation and inspection at all these places.

Mr. A. W. Graham, a nurseryman at St. Thomas, thought the regulations pertaining to fumigation injurious to owners of small nurseries who sell direct to farmers. His customers, who preferred to have the trees taken out of the rows and immediately hauled home to be planted, were inconvenienced and delayed. He thought the San José scale could be held in check by washes and spraying. The other witnesses approved of going on discovering and burning affected trees.

At Chatham, interesting evidence was given by Mr. John Van Horn, who in 1893 had bought some affected nursery stock from Parry, New Jersey. In 1895, Parry notified him to be on the outlook for San José scale. He found it, and began treating it with a California mixture of lime, sulphur and salt, and later with whale-oil soap. One Simoni plum tree was cured, but the scale was not eradicated from the others. When the Act came into effect, his treatment experiments were stopped, and the affected trees were burned. Mr. G. Marshall, a neighbor of Mr. Van Horn's, produced a map of his orchard to support his theory that the wind had carried the scale through blanks in a row of pine trees into his orchard out of Mr. Van Horn's. Mr. Frank Wilson, who has about 200 acres in orchard and nursery, has had some experience with the scale. He never saw trees killed by it. The friction with the farmers has been caused by the brusqueness of the officials and the low compensation for destroyed trees. Mr. J. C. McMullin estimated his loss at \$150, whereas he received only \$15.75. He would not replant until he saw what the result of the present disturbance is likely to be. A number of other witnesses favored the continuance of the effort to "stamp it out," with increased compensation for destroyed trees.

At Blenheim, a large number of witnesses, with various opinions, were examined. Details of the method of inspection occupied a good deal of attention here. It came out that the first examination had missed it in orchards where it was subsequently discovered, and vice versa; that one set of inspectors had reported it in an orchard (Geo. Mallory's) and blazed 96 trees where the next set of inspectors said they could not find it. The majority of the Blenheim witnesses were in favor of going on with the Act, but increasing compensation. Here, as well as at Chatham, the witnesses were cross-examined by Mr. Laird and Mr. John Gordon, of Guild's, who tried to get them to give opinions on two points—whether, if it can be proven that the insect is on forest trees and on weeds, it is possible to "stamp it out," and whether the Government should guarantee future immunity to owners who cut down and burn their orchards.

On the 6th July the Commission held sessions in the large public school house at Guild's. At the evening session, men, women and children crowded every foot of sitting and standing room. The opposition to the Act is very fierce in this neighborhood. In 1892, Mr. Warner had introduced scale into his orchard on some young nursery stock. He noticed the effects of it in 1897, and sent specimens to Ottawa for identification. It is not known whether all the infestations in the district have spread from his orchard or not, but the scale has been found in a number of orchards, which have been cut down and burned. Mr. Gordon produced willows, wild hemp, and several other herbaceous plants, upon which the insect had settled, and inoculations of various forest trees, to prove that the insect can live on them. He described his resistance to the cutting of his trees by locking gates and otherwise, vainly hoping that he would be taken to jail and his orchard spared in the meantime. Mr. Glendenning, a heavy loser, held that they might as well try to stop the wind as to exterminate the scale. Mr. Laird emphasized the value of a farmer's orchard for ornament, shade and protection, aside from its commercial value. If they burned his barn to kill the rats, he is not too old to build another, but he could not hope to enjoy another orchard. He favored the continuance of inspection. He thanked the Government for helping to discover the scale, and held that its next duty was to conduct experiments to find out how to control it without destroying the orchards.

At Leamington, Kingsville (where two or three orchards have been burned), Amherstburg, and Windsor, the witnesses were divided in their opinion, some favoring procedure on the present lines, with increased compensation, and about as many others favoring remedial treatment. Valuation is now made by the Government Inspector, and compensation given to the extent of one-eighth for infested trees and one-quarter for suspected ones. Nearly all the witnesses advocated valuation by some kind of arbitration in which the owner would have a voice, and that he should be compensated at one-half to three-fourths of the arbitrated value.

At the close of the Windsor session the Commissioners went to Catawba to observe the effects of remedial treatment for San José scale there. They expected to meet Prof. Webster, the State Entomologist of Ohio, at that place.

In the report of the visit of the Ontario Commission to Catawba Island, Ohio, published by an American exchange, it is stated that the Commissioners were shown infested trees from which the San José scale had been eradicated by the use of strong whale-oil soap properly applied. The insect, it seems, can be controlled by applications of weaker grades of soap; that is, soap with a lower percentage of caustic potash. The report refers to other benefits the trees derive from the soap-spraying besides the reduction or eradication of the scale insects. May not some of these benefits arise from the destruction of borers and the fertilizing effects of the drenching which the trees receive and which runs to the ground?

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.]

Veterinary.

PIGS WITH SKIN ERUPTION.

SUBSCRIBER, Simcoe Co., Ont.:—"Would you please answer the following question: I have an acre of tares and an acre of rape in the same field. When the pigs had been feeding on them for a week I noticed them getting very itchy. Some of them are very bad—the skin is all cracked along their backs. I think it must be the rape that is causing the trouble. Will it do them any harm? Some of the pigs are white, some black. It is only the white ones that are affected yet. All the grain they get is corn meal. 1. Is there anything that could be done to relieve them? 2. Could you tell me how to mix fish oil and coal oil for keeping flies off cattle?"

[1. In answer to yours of the 14th inst. re pigs, I would say that the trouble certainly is not due to the rape. I cannot speak so confidently about the tares, as I cannot call to mind instances of pigs

pasturing on such. Still, I do not think it would cause a skin eruption, especially in such a short time. The condition is probably due to high feed and confinement before being turned out, though the heat of the sun hastened its development. White hogs are liable to sunburn when first turned out in hot weather. I would advise the following treatment: Feed once daily, in sloppy food, equal parts Epsom salts and sulphur, say from one to two tablespoonfuls for each pig, according to size. Dress the affected parts with raw linseed oil, forty parts; carbolic acid, one part. Dress twice daily.

J. H. REED, V. S.

Ontario Agricultural College.

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

Miscellaneous.

NOTICE.

We have decided to discontinue giving answers to legal questions, many of which we find are not of general interest. It is really no part of the legitimate work of an agricultural paper, and is not, as a rule, adopted by the best papers of this class; besides, our space has been pretty heavily taxed with questions upon agricultural and live stock, and we desire to encourage this feature by giving more prompt answers than we have been able to do in the past on account of the large amount of matter which at times accumulates in this department. Our friends, we trust, will take kindly this announcement, and not refer any more legal questions to us. SICK DUCKS.

SUBSCRIBER, Oxford Co., Ont.:—"I had twenty ducks about half grown. They were healthy until a few days ago, when some of them would stagger around and in a few hours die. They were fed two quarts corn meal and bran, equal parts, three times a day. They had plenty of water, though not extra clean. Give cause and cure, and if feeding is correct?"

[I think the trouble is caused from a lack of grit or gravel and shade. Ducks require shade from the sun, for if it is not supplied they will sometimes stagger about and in a few hours die. They will sometimes die from lack of grit. We put a handful of grit into every two quarts of feed. Whenever we have undertaken to raise ducks without the grit, some always died as above. I would prefer one part shorts in the place of two parts bran. If the ducks are for breeding purposes, less corn meal would be advisable, as this food is very fattening. We are feeding our ducks as follows: Equal parts by measure of bran, middlings and corn meal, which is mixed dry, then moistened with skim milk. We add one handful of grit to every two quarts of food. We also give them all the green feed they will eat. Fresh water is given at every feed, which is five times daily. No water is allowed for the ducks to swim in. I would prefer clean water to a filthy stream or pond. W. R. GRAHAM,
Manager Poultry Dept.
Ontario Agricultural College.]

UNHEALTHY PEACH TREES—YELLOW.

G. R. H., Wentworth Co., Ont.:—"I write to ask for a little information regarding peach trees. They have been planted three years and have made very rapid growth, but I notice this spring they are not as healthy as should be. In working around them I notice at the surface of the ground a jellylike substance has oozed out of the trunk, in some cases to the amount of a small teacupful or so. Is it the yellows? Please describe fully the yellows. There is a good showing of fruit on these trees at this date. Very little curl leaf. An answer to the above through your valuable paper, the ADVOCATE, will be prized."

[In reply to your correspondent's question regarding his peach trees, I may say it is difficult to tell from the information he has given just what is the matter, but there are several things which would cause the gumming which he speaks of. Partial winter-killing or injury to the bark would have this effect. If the gumming occurred higher up on the tree it might be due to peach rot (*Monilia fructigena*). However, if the gumming occurs near the ground it is more likely to be due to injury to the bark. In a bulletin on "Peach Culture," by Prof. Craig, issued by the Experimental Farms, the author gives Bailey's description of yellows as follows:—

"Yellows is a distinct disease. It attacks peach trees of all ages and in all conditions of vigor, seeming to have a preference for those which are thrifty. It is incurable, and its termination is always fatal.

"It is communicable from tree to tree. The means of communication is unknown, but it is not spread through the soil, it does not originate in the roots, it is evidently not conveyed from flower to flower, and it is probably not transferred by means of pruning tools.

"The one unmistakable symptom of yellows is the red-spotted character of the fruit. The flesh is commonly marked by red lines or splashes beneath the spots. These peaches generally ripen prematurely, and in the second year they are usually smaller and often more fuzzy than the normal fruit. The second symptom to appear, or the first in trees not in fruit, is the tip growth. This is a short growth starting from the upper or terminal buds, usually late in the season, and is characterized by narrow stiff yellowish small leaves, which stand at nearly right angles to the shoot. Sometimes these tips appear late in autumn, after the leaves