

## APIARY.

## Lectures and Experiments on Bee-keeping.

Mr. R. F. Holterman, of Brantford, formerly an esteemed contributor to the FARMER'S ADVOCATE, on bee-keeping, has been appointed lecturer on that subject at the Ontario Agricultural College, where he began his duties on April 17th. Mr. Holterman graduated from the College in 1880, has been president or secretary of the Agricultural and Experimental Union for some eleven years, has been a Farmers' Institute lecturer on agriculture, and is president of the North American Bee-keepers' Association. Both first and second year students take the lectures (so that they will get the experience of two seasons), the most of which will be delivered during the spring term. A few colonies of bees will be kept at the College to make the instruction as practical as possible. Examinations will be conducted as in the other subjects, apiculture being now a regular department of College work.

Mr. Holterman will also carry on experimental work in bee-keeping with his own apiary at Brantford, which varies from 90 to 140 colonies. Tests will be made with various strains or breeds of bees, various systems of wintering, methods of management in the production of comb and extracted honey. Comparatively little work has been attempted by the experiment stations in apiculture, so that a very wide field for investigation is open. The following table shows the number of colonies kept in various European countries:—

	No. of Colonies Kept.	No. of Colonies per Square Mile.
Germany.....	1,910,000	8.00
Spain.....	1,690,000	8.45
Austria.....	1,550,000	13.37
France.....	950,000	4.65
Holland.....	240,000	18.09
Russia.....	110,000	1.00
Denmark.....	94,000	6.37
Belgium.....	200,000	17.49
Greece.....	30,000	1.20

Canada had only some 220,000 colonies when the census was last taken, out of which Ontario had some 160,000, and yet wherever Ontario honey has been shown it has taken the lead. At Chicago, Ontario took more than half as many awards as the whole of the United States put together, and then Ontario showed only one season extracted, and many States of the Union showed two seasons, and received a double set of diplomas. The keeping of bees has much to commend it. The honey crop takes nothing from the fertility of the farm, and displaces no other crop, as the bees avail themselves of the flora which already exist. An apiary may often give a profitable opening with a small capital to a young man on his father's farm, and so on; though let no one run away with the idea that it is a mere money-making pastime that can be successfully prosecuted without study, skill, and industry.

The Legislature appropriated \$300 towards the above lecture course, \$300 for the experiments, and also \$100 special grant to defray the expenses of the International Bee-keepers' Convention.

## The Queen Bee.

BY JOHN MYERS.

Remember, it is not all gold that glitters; and it is not always that the progeny of those golden Italians bring in the glittering honey when they should. I have thoroughly tested the five-banded Golden Italian queens from several different breeders, and while nearly every queen that I have tried has given me the most beautiful-looking bees that one would wish to see, yet in nearly all other qualities I have found them inferior to the ordinary Italians. With the same care in the fall, I have not been able to bring them through the winter in as good condition, showing that they are not a hardy bee; and they do not build up as quickly in the spring,—not because the queens do not lay as well as the others (I have found them to be very good layers), but because of the colonies being weaker. In the spring they have not the chance to build up as soon as they would if they were stronger in numbers. I have found them, as a rule, to be very irritable, and do not remain as quiet on the combs as the ordinary Italians; and sting—Oh, say! I have sometimes thought they would sting through an ordinary stove-pipe—nat, I mean. With the exception of the Cyprians, I think they are the worst stingers I ever saw. There is one other very annoying trait that they have, and that is their thieving propensity; they are most terribly wicked robbers. I have known them to be nosing around supers, and trying to get into the honey-house, when their decent Italian cousins would be working away and laying up surplus honey. Of course they have some good traits. One is—as I have said before—they are very beautiful to look at, and when they start to work they are very industrious. I also think they will draw out foundation and build comb a little faster than the Italians, and cap their honey over a little nicer. Now, I have tried to tell you the truth about these five-banded queens—just as I have found it to be after carefully testing them for three full seasons, and I do not wish it to be understood that I am prejudiced against them. I am not; but, on the other hand, I had fondly hoped that they would have proved to be the ideal bee—they are so beautiful; but in this I have so far been disappointed. I might say I have carefully tested all the races of bees that have been brought into this country, and I feel satisfied in saying that the pure three-banded Italians are the best bees—all things considered—that we have at the present time.

## What Hives to Use.

Before deciding what sort of hives to use, remember that no more room should be given the swarm than the queen can keep full of brood, so that during the honey flow the bees will be forced to the upper sections, which should be put in at least a week or ten days before the white clover flow begins. If this is done both the bees and queen will find that they have plenty of room, which will prevent them from being over-anxious to swarm, and they will begin to work in the sections earlier.

## 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.

## LIABILITY OF SURETY.

"A applied to B for a loan of money, and C agreed to become surety for the re-payment of the money by A, and C signed a document in which the amount was not then filled in (a blank being left for the purpose), the amount being afterwards written in by A, and the document then given to B to secure the loan. The debt is long past due, and A has since died. C thought the money was paid back to B some time ago. Can B now compel C to pay the debt?"

[The document being signed with the amount in blank, may be perfectly enforceable against C in law, even though A afterwards wrote in an amount greater than was intended by C, because C himself put it in the power of A to commit the fraud (if any); but if there was fraud on the part of B in the transaction, then he could not enforce C to pay, even if he took proceedings promptly upon the debt coming due. In any event, if B knew that C was only a surety, it was his duty to notify C promptly, if the debt was not paid at maturity, so as to enable C to take proceedings, if he so desired, to save himself from loss. And B could not extend the time for payment of the debt by A, and continue to hold C liable as a surety, unless C also agreed to the extension. It was the duty of B, when the debt became due, to collect from A, if he could. And if the debt is long past due, and C was not notified promptly, then it will be difficult to enforce the agreement now against the surety.]

## ABUSE OF CATTLE.

C. C. B. M., Muskoka:—"Can I prevent a neighbor or his boys from chasing and abusing my cattle with dogs and darts, either on the roads or on his lot, which is not fenced, or where there are bad fences?"

[No person, not even yourself, has the right to abuse your cattle. You probably know whether cattle are allowed to run at large on the roads in your district; if they are, of course no person can interfere with them to drive them off, and no person in any event has a right to chase or abuse them on the road. If your cattle are trespassers on your neighbor's farm, even if he has no fence, he has a right to drive them off, using reasonable means, but he must not wantonly abuse them. His remedy is (providing he has fences as required by law) to impound the cattle and claim damages. Your remedy is to prosecute him for cruelty to animals, if he wantonly and cruelly ill-treats them, and to sue for damages done to the animals, and, if necessary, an injunction would be granted to restrain him.]

## POSTAL.

MUSKOKA ENQUIRER:—"My brother and myself get our letters at the same post office. We are both married, and our wives each have the same Christian name, and, consequently, their letters frequently get into the wrong house. Is the elder brother's wife entitled to receive all the letters, the addresses on which apply equally to either wife? Are not widows the only women who are legally entitled to use their Christian name after the prefix 'Mrs.?'"

[This is a matter for post office regulations, and there is no fixed rule to cover it. We think the postmaster would have to give a letter to the party who called first and claimed it, providing the postmaster knew the party and knew the name was right, and had not good reason to think the letter was for another person of the same name. But why have letters been addressed in the way you indicate? Surely the better form in all cases is for the wife to use the prefix "Mrs." to the husband's Christian name instead of her own. Even in the case of widows, we think they have the same legal right as married women to use their maiden Christian name if they choose, and we know the custom in some places is adopted, but that does not make it right or good form.]

## Veterinary.

## BRUISED SHOULDERS.

H. L. M.:—"I have purchased a fine young mare that was badly used during the winter, and has had very sore shoulders. They are now quite healed, but as soon as I work her they swell just where the draft comes. Is it advisable to cut the swelling, so they will discharge, or what is the best remedy? I can only use her with a breast strap."

[When the edge of the shoulder blade becomes bruised, as in this case, it is advisable to give a long period of rest to the parts. Foment with hot water, and apply a lotion of arnica and camphor: one ounce of the former and half the quantity of the latter to a pint of water. This will remove the soreness and allow the parts to regain their natural condition. Have a new collar fitted, and before using the animal place the collar on to the neck for two or three days until it gets thoroughly set to the conformation of the parts. Wash and dry well before again putting the animal to work. A little attention to these details will prevent this cause of irritation.]

DR. WM. MOLE, Toronto.]

## NEEDS A REST.

I. J.:—"I have a mare five years old that, when driven or exercised, has a stiffness in hind legs and a trembling in the flank. She moves stiffly as if afraid to lift her feet; otherwise she is in good health, as her coat is sleek and appetite good. She had been driven hard the past winter. What is the cause and cure?"

[It is somewhat difficult to say what can be the cause of this mare's stiffness, as so many conditions may be present. It may arise from the animal being run down, and on the other hand it might be from sore hocks; either condition would present these symptoms. Provided either of these causes, the line of treatment would be a run on pasture for a couple of months; this would be the most safe method without an examination. Why not get a veterinary surgeon to examine her.]

DR. WM. MOLE.]

## Miscellaneous.

## FEEDING DAIRY COWS.

E. A. S., Weston, Ont.:—"In the case of a farmer entering a farm, and having to buy all the feed necessary to keep, say twenty-five cows in good milking condition, what feed would you recommend before grass time and after as being the cheapest and best? I have a silo, but of course will not be able to fill it before autumn."

[If the cows were milking before grass, the most profitable feed to buy would be clover hay, oat straw, brewer's grains, and oil-cake. If the hay and straw are cut up together, and the brewer's grains and oil-cake mixed with them, a palatable, nourishing and milk-producing ration should be obtained. As to quantity, about four or five quarts of the "grains," which should be obtained fresh, and one and a-half pounds of oil-cake, mixed with as much cut hay and straw as will be eaten clearly twice daily, with a little straw to pick at between feeding times, should give satisfaction. Should there be no breweries near enough for you to obtain "grains," oat and pea chop might be used instead. If the cows have not yet come into milking, a much less quantity of grain will suffice. As to what to use for summer feed in addition to grass, we would recommend sowing a patch of peas, oats and vetches, as soon as possible. A couple of weeks later sow another patch, and again at the end of the week or ten days. Just as soon as the ground warms up, put in drills, thirty-six inches apart, corn for fall feeding and silo. A patch of mangels, sown early in May, will serve a good purpose in the autumn.]

## THE PEA WEEVIL.

QUERIST:—"Kindly advise us on the following:—For some years the pea grub has been very bad; seventy-five per cent. of peas would be affected. Some people advise sowing peas very late—end of May or first of June—and we would have no grubs. 1. Can you tell if this is always true? If we sow peas so late, are we likely to raise a decent crop? 2. If they are going to be better sown late, what is the better way to prepare sod for peas; plough early and keep ground harrowed and cultivated till time to sow, or leave ground unploughed till late? It seems to be out of season to sow so late for a crop, some grain experiments giving less and less grain for each week they were sown after the regular time in early spring."

[1. We believe that late sowing is a remedial measure, because the female bug deposits her eggs about the same time each year, and should the pods not be formed by that time, the crop will escape the bug. This, however, is not an entire preventive, as there are apt to be a few late bugs, but the testimony of successful pea growers is that good results have been obtained by late sowing. The chances of getting a good crop when sown late depends upon the season. Were there no bugs to contend with, we would prefer early sowing. As the seed-bed for peas should be very loose and mellow, sod may be left unploughed until near the time of sowing, as the nicest sort of top can be gotten in that way. Other remedies are: 1. To sow uninfested seed. 2. To sow seed held over one year, when all the bugs will be dead. 3. Most effective is that adopted by the seedsmen to treat large quantities of infested seed at one time: Place the seed in a close box or bin; place on the top of the heap an open dish of bisulphide of carbon, then cover the whole up tightly. This chemical volatilizes into a heavy, poisonous, inflammable gas, which settles down through the heap, killing all manner of insect life. Leave them thus covered a couple of days. Never allow fire of any sort near the bin at this time, or an explosion may result.]

## CURE FOR RINGWORM AND LICE.

SUR. 1. For the public good I wish to tell you my experience with castor oil and spirits of turpentine. I had a ringworm on my hand; I tried several of the supposed cures, but all failed; it continued to get worse; I applied spirits of turpentine and then