Official Tests of Cows.

The Illinois Agricultural Experiment Station has arranged to supervise tests of dairy herds, and in exceptional cases, of individual cows, owned or exhibited in Illinois. The Station, through its representative, shall receive full information as to breeding, age, time of calving, date when bred, and treatment of the cows prior to the test; also have full opportunity to determine the quantity and kinds of food used, and the methods of feeding and treatment during the tests, with privilege of taking samples of food for inspection or analysis, as well as the quantity and quality of the milk or butter product. The results of the tests, duly certified by the Station, will be furnished as soon as determined to the owners of the cows, or to the associations under whose auspices the tests are made. The Station shall have the right to make publication of the results obtained, but no publication will be made without the consent of owners or associations until the completion of any public competition in which cows have been entered. This enterprise looks like a move in the right direction, as many private tests recorded appears to many unreasonably high, therefore, inaccurate, while tests conducted by the State will leave no room for doubt as to a cow's or herd's abilities. Similar tests are being conducted in other States by Experimental Station authorities.

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.]

Miscellaneous.

POTATO BUGS.

G. G. ROBB, Kazubazna:—"What amount of pure Paris Green is necessary to mix with a barrel of plaster to kill potato bugs?"

[About 1 part to 100 gives good results, or about 3 pounds to a barrel of plaster.]

FARM VETERINARY PRACTICE.

S. COOPER, Medicine Hat:—"Will you please answer, in the next issue of the FARMER'S ADVOCATE, what, in your opinion, is the most suitable book as a doctor book for cattle, horses, pigs, sheep, etc., and the address and price, and where it can be had? I want a good one at any price."

["Law's Farmers' Veterinary Adviser" we would recommend, and it may be obtained through this office at the publishers' price, $3.]

ENQUIRY FOR BROWN SWISS CATTLE.

JAMES C. COOPER:—"Please inform me, through the ADVOCATE, if there are any of the Brown Swiss breed of cattle in Canada, or how could a person get one from the United States? Would they be permitted to be brought over without much trouble?"

[We do not know that there are any Brown Swiss cattle in Canada. They can be brought into Canada for breeding purposes, duty free, but would require to spend 90 days in quarantine, cost of keep there being charged. As to breeders, write Mr. N. S. Fish, Groton, Conn., Secretary of the U. S. Brown Swiss Cattle Breeders' Association.]

WORLD'S FAIR DAIRY TRIALS.

D. M.:—"What breeds competed in the World's Fair milking trials, and what was the result?"

[Jerseys, Guernseys and Shorthorns, the first named taking first honors, both in the butter and cheesemaking competitions. Our space is too limited to give the statistical results.]

RAPE AS A FOOD FOR MILK.

DAIRYMAN:—"I am thinking of sowing rape as a supplementary fall food for cows. Will it spoil the flavor of milk? I heard it stated at a dairy association meeting that it was worse than turnips."

[At the Experiment Station, at Guelph, an experiment to ascertain the value of rape for feeding milch cows was conducted; commenced October 20, 1892, and lasted 53 days. Four cows were chosen and divided into two groups. The test was divided into 4 periods. During the second and fourth rape was given, and during the first and third no rape was fed. The cows each received 5 pounds of meal per day throughout the experiment. This, along with pasture, formed the ration of the first period; and the meal, along with hay and ensilage, formed the ration of the third period. Group I. was allowed 40 pounds of green rape per day and all the hay they would eat, and group II. received all the rape they would eat, but no hay. The average daily amount of rape eaten by each animal in group II. was 75.7 pounds. The following was the average daily amount of milk obtained from each animal in each group:

Group I. Ration with rape—19.13 pounds of milk.
Group I. Without rape—17.25 pounds of milk.
Group II. With rape—18.20 pounds of milk.
Group II. Without rape—17.74 pounds of milk.

The rape was fed both before and after milking, and the milk, after being tested in several families, was reported to be perfectly good, with no perceptible taint of any kind. The Babcock test showed the butterfat slightly higher in milk from the rape ration.

VETERINARY.

Dentition and Dental Diseases of Farm Animals.

BY DR. MOLE, M. R. C. V. S., TORONTO.

(Continued from page 264.)

PART III.—SHEEP.

Anyone who has read the previous chapter on the teeth of the ox will very readily understand that the terms made use of for the purpose of description will be again used. In regard to the teeth of the sheep, they correspond in all general points, excepting in regard to size.

At birth, the arrangement of incisors of the lamb is peculiar; the whole of the temporary or milk-teeth may be seen in outline beneath the gum.

By the end of the fourth week the central incisors are most advanced.

Next in order come the laterals, leaving the middle and corner teeth much below them; very often the cutting edges of the molars are quite through the gum. We have no means, so far as we can judge, that will guide the expert to a correct opinion of the age between the eruption of the temporary teeth, at one month, and cutting the permanent broad teeth, at one year old.

At three months, the fourth permanent molar is just through; at nine months, the fifth.

At one year old the teeth will present the following appearance: The incisors are worn on their upper surface, especially the central and middle, but the corners are not worn unless feeding on roots; then some of the incisors may be broken off, and the central permanent incisors cut, but they are never perfectly level at this age.

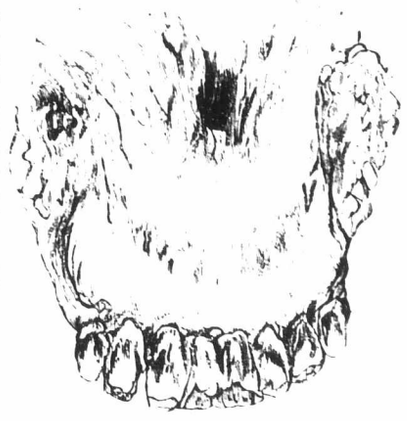
[Figure 20—Incisors of sheep at 1 year.]

Figure No. 20 shows the average state of the temporary teeth at one year, if not broken by eating turnips, etc. The first broad teeth, or central pair, are usually cut and well up at fifteen months; at eighteen months the sixth permanent molar is cut, and the second pair of incisors about one year and ten months. Soon after the sheep reaches one year and six months, the sixth molar begins to protrude through the gums.

When sheep are exhibited as under two years of age, and are found to have six broad permanent teeth, further evidence should be sought in the condition of the molars, for it is a pretty well known fact among sheep breeders that six broad

[Figure 21—Shows the appearance of the teeth at two years old.]

permanent teeth will indicate the animal to be above two years and three months old, but they may be present at twenty-two months without doubt. See figure 21.



[Figure 22—Incisors of sheep at 3 years.]

At 3 years old the corner incisor teeth are usually up, or about this age, although in some rare cases they do not appear until the sheep is nearly four years old, and the central pair worn, as may be seen in figure 22.

No difficulty should be experienced in deciding whether an animal is three or four years old, if the state of the incisors is taken into account and the marks of wear observed.

[Figure 23—Incisors of sheep at 4 years.]

At four years of age the six broad teeth will show marks of wear; the central incisors especially will be worn hollow. These appearances of the mouth of a sheep at that age may be seen in figure 23.

After the age of four years very little evidence can be gained from the inspection of the teeth.

There is one disease, or rather complaint, that may be said to be due to the teeth, known locally in the few districts of Lincoln (Eng.) as stretches, due to indigestion. It is more prevalent during the spring than at any other season, although cases are sometimes met with at any time when the flock is fed on hay or straw. A sheep attacked by this complaint suffers intense pain, and stretches every few minutes—hence the name.

The simplest and most effective remedy is to take the sheep by the hind legs and hold them, head downwards, for a few minutes. This may not appear a very humane method; but it will often be the means of saving life, and is therefore justifiable.

POULTRY.

Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

While planning to go away and present the poultry subject at some May and June institutes, I simply hastened those home operations which were demanded anyway. My old, fat and mischievous hens must go to market before the bulk of farm chickens come on, when adult fowls fall in demand and price. At selling time, the larger carcasses of the larger breeds help to make up for the less number of eggs laid. I am here reminded of an institute question, namely, how tell the older fowls? We decided that faded and rougher legs, longer necks, and, above all, intimate acquaintance with our own fowls would guide us aright. Hence, I have never bought any of the punches, from 25 cents up, advertised in the poultry papers, and which many use to make a hole or holes in the web of one or both feet. It is called comparatively painless, and necessary for large flocks, so that no mistakes be made in selling. It is not always the longest life which has most in it, because pullets are our best layers; but old hens, as they moult tardily, can be trusted for our late summer laying, and after they moult again, being well seasoned and toughened, often prove our best January layers. Neither people nor animals should die before their proper time; hence I always save some of the best hens, and pyretheum them thoroughly before the next step of progress, which is graduating my chickens, or early introducing them in the house where their days are mainly to be spent. Train up chicky in the way she should go, and when she is old she will not depart from it. But there is more preparation for the reception of those chickens. This year, as usual, my movable nests and platforms were taken outdoors, and both houses had their walls swept down. Two of my neighbors have hinged covers over their stationary nests, but even that is far inferior to movable nest-boxes in point of thorough cleaning. My perches and nest-boxes were kerosened, and the latter refilled. I have had young fowls made lame when kerosene was applied to their legs, and many poulterers fear the oil; but, put on perches several hours before night, I am sure no such results follow. While I was turning kerosene into every crack of my nest-boxes, I noticed the extra seams and the pieces which had been set into my once perforated, or sort of slatted, nest-bottoms, that someone told me were needed for ventilation. When that old hen, from a horse collar on a bare board, brought off eighteen, and another from the hay-mow brought off sixteen chicks, I had a "revelation" on the subject of ventilation. Who ventilated their nests, and who bothered as I have done to keep nest-fillings from sifting out? My nests were not hard to clean this year, because few or no eggs had been broken therein, and I do find, after repeated trials, that crushed shell and bone help to put better coverings on biddy's eggs. Strong shells are what a sitter needs to start with, too, as she herself gradually rubs them thin. Tired of hand-picking bark and chunks, I tried first a perforated pan, then an old steamer, and, at my father's suggestion, finally a coarse sieve from the fanning mill, which last plan satisfactorily sorted my sawdust for nests. While I prepared my nests, a man coated the first house with hot whitewash. I put one-half ounce carbolic acid in a candy pail of the wash, cautiously turning away my face as I stirred in the strong acid. I also kept hot water on hand to renew heat of mixture. I got other nests done in time to be fumigated with second house. We forgot to provide for live coals, but a charcoal fire, after started, burned much brighter—so fiercely, in fact, that we watched it carefully through the window. Since calling dust a better application than lime on manure, my attention has been directed to plaster, which holds elements in-