

Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto.

J. S. R., Essex Co.:—I should like to be advised how to treat my collie which has fleas.

Answer:—Fleas multiply in the dust and dirt of kennels and even in hen houses when conditions are favorable. It is therefore important that all loose dust and dirt be removed from the box or stall in which the dog is housed. It is well then to thoroughly disinfect the space with a one per cent. solution of creolin. Unless the quarters are thus disinfected it will be useless to treat the infested dog. Bulletin No. 12 of the Dominion Department of Agriculture entitled "Fox Ranching in Canada" describes the treatment for ridding foxes of fleas. The instructions are equally applicable to dogs. After the premises have been cleaned up, it is recommended that the animal be dipped in a one per cent. solution of creolin, which should be immediately washed out. Other treatments recommended in the bulletin are as follows:

One pound of soap, two gallons of kerosene, one gallon of water; make into an emulsion by heating and stirring. The strength of the mixture is reduced by adding nine parts of water to one part of the mixture.

When it is impossible to dip the animals, much benefit may be derived by spraying the fur with spirits of camphor, and rubbing it in well, especially in the vicinity of the long fur around the neck.

Several kinds of insect powders are also used, but some of these only stun the fleas and do not kill them. While in some cases pyrethrum or dalmatian insect powder may be used to advantage, it must be employed only on healthy animals, and should be dusted off within ten or fifteen minutes after its use.

Cattle Raiser, Bruce Co.:—In dehorning two-year-old or three-year-old cattle, do losses ever occur?

Answer:—Cattle have been known to die as a result of dehorning, but only in very exceptional cases. In the experience of the Dominion Experimental Farms, where thousands of head have been dehorned, two steers died in the dehorning chute. In both cases the steers were very wild and died of shock. The animals were promptly bled, dressed and disposed of as best without loss. An occasional animal, with very strong horns, will suffer for a few days from inflammation in the case of this sort where inflammation and pus formation results, the horn cavities should be sprayed out daily with hydrogen peroxide and water. In treating cases of this sort the Experimental Farms also used iodine as a dressing. The soreness does not, however, seriously affect the animals. In one case a steer put in at 1,250 pounds finished at 1,550. Another, which suffered for nearly a week after dehorning, gained from 1,150 to 1,350 pounds during the winter feeding.

R. H.:—Please tell me how much hay it requires to feed one two-year-old sheep three months in winter, at a time when it cannot get any other feed?

Answer:—Much depends on the heartiness of the sheep and the character and quality of the hay. A vigorous, two-year-old sheep will consume

from five to six pounds of hay daily. When no other feed is used it is preferable that this be more than fifty per cent. clover. In feeding hay to sheep it is very important to give not more than is eaten up in an hour. If given three times a day at this rate, in a rack, the amount of 500 pounds of such hay as described should be ample.

B. T. M.:—I have on hand a quantity of bran and middlings mixed, carrying 15.30 protein. I feed silage containing a good supply of dented corn, and cut stover from which the corn has been husked in the morning, and silage and alfalfa or clover at night. Can I get as good results by using the bran and middlings in place of oats?

Answer:—It is inferred that cattle are to be fed. The bran and middlings mixture named would make very satisfactory concentrated feed. Oats, which are about equal in nutritive qualities, by some mysterious process have a greater feeding value inasmuch as they seem to give greater thrift in the animals being fed. If the feeds are the same price, oats, if crushed, are preferable to the bran and middlings mixture.

R. H.:—What are the characteristics of the Ruby variety of wheat, which I understand ripens along with six-rowed barley; that is to say, earlier than most other varieties of wheat?

Answer:—Ruby wheat, otherwise designated as Ottawa 623, comes from a cross made at the Experimental Farm, Ottawa, in 1905, between Downy Riga G and a selection of Red Fife. The heads of Ruby are rather short and carry a few short awns toward the tip. The kernels are hard and red and rather below average size. It is a heavy wheat, the measured kernel weighing usually more than sixty pounds. The kernels of Ruby are not tightly held in the chaff and are liable to shell unless the crop is cut on the green side. Compared with Marquis, Ruby ripens about a week earlier, but gives a lower yield. The straw is of moderate length and stands well in the field. The milling and baking qualities of Ruby are of a high order.

Enquirer, Lennox Co.:—What temperature should be maintained in a cellar where bees are being wintered?

Answer:—The range of temperature in the bee cellar should be fairly constant. It should not fall below 45 nor go above 50 degrees. Forty-six or forty-seven deg. F. in fairly dry quarters seems to ensure the bees coming through with little wasted energy and without undue consumption of stores. To secure these conditions two important principles in cellar construction should be observed. The cellar should be so low in the ground that it is very little affected by changes in the outside temperature, and the ground should be well drained. In a large house cellar the bee storage may be better controlled by boarding off a portion of the space, which should be as far from the furnace, if such is used, as possible. It is well to keep a thermometer in the room and to observe it from time to time. Towards spring, as the temperature rises, it is well to carefully admit air by opening the window a little.

alfalfa and red and alsike clover. Liberal allowances of these feeds will go a long way towards supplying the demand. Where an extra supply of mineral matter is considered necessary, this may take the form of steamed, edible bone meal and ground rock phosphate, one pound of each to every 100 pounds of meal. At the same time, in fact, at all times, a liberal allowance of common salt must be given, as it is from this that a good portion of the mineral requirement comes. As indicated, supplementary mineral feeding is to be recommended during the final stages of the lactation period and during the rest period following, so that lime and phosphorus may be stored up for the heavy call which is made upon them during the subsequent heavy flow of milk. It may well be continued throughout the whole lactation period where production is abnormally heavy.

Dairy Product Values.

A table appearing in the Agricultural Gazette of Canada for November and December, dealing with the yearly production of dairy factories, shows that while there was an increase in the production of creamery butter in this country of nearly eleven million pounds in 1921 over 1920, there was a decrease in the total value of between seventeen and eighteen million dollars. The cheese manufacturers increased upwards of eleven million pounds while the total value decreased more than ten million dollars. Nevertheless the total value of dairy products in the whole country in 1921, although considerably less than for the two preceding years, was about sixteen million dollars greater than in 1917. Ontario and the Western provinces were the chief contributors to the increase.

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Parents as Educators

Imagination and Untruth—By Mary E. Underwood

One day last winter my six-year-old boy ran to me and said, "Come out and see a bird's nest with four blue eggs in it."

In surprise I took his hand and walked beside him through the garden to a leafless wintry rosebush to which he pointed triumphantly. "But where is the nest?" I asked.

"Right there," he insisted, indicating a black branch with not so much as a straw on it.

"But there is no nest," I insisted. Then he withdrew his hand and looked up into my face with utmost scorn. "Can't you make-believe anything?" he said.

What was my response? What should have been my response to you think? Well, I believe the words that rushed to my lips were the right and true words. I said, "Why, darling, I beg your pardon for being so stupid! Of course I can make-believe and I'll never be so dull again."

The next week, however, there occurred in my household a very different kind of falsehood. A little girl of whom I had temporary charge had found purse with a good deal of money in it. We had talked about this among our neighbors and in the child's presence until she felt proud of herself. One day she came to me with a dollar bill in her hand.

"I certainly will make you rich sometime," she exclaimed quoting a remark which we had frequently made among ourselves. "Here is a dollar I found under a rock."

I can not tell just why I did not believe her, but after accepting the dollar of which she made me a present, I went to my purse. It had been taken out of that. I called her in from her play and very quietly told her I felt sure she had taken the dollar from me and asked her why she had done so.

She denied it—she even protested piously that she could not be so base as to steal from one to whom she owed so much kindness. I did not argue or raise my voice; I simply kept saying, "Why did you take it?"

feel sure you took it." "Tell me why you took it?"

Suddenly she broke down and admitted her guilt. Of course her reason was clear: She wanted to be talked about more, to hear people say, "Mabel has found more money." She had no desire for the money itself; she had given it back to me.

The first of these cases, that of the bird's nest story was an act of harmless and beautiful imagination; the second was a lie. The spirit of the first should be encouraged; the second required a punishment which would make clear to the child's conscience the baseness of her deed.

It is seldom hard to know the difference between flights of a child's imagination and his untruths. To sympathize with the former, however, we must pause for a few minutes and try really to understand children's natures.

It is very unjust to confuse this beautiful gift of childhood with the spirit of cowardice and vanity which is at the root of most lying. To be good mothers we must realize that our little children up to ten years of age are like poets and artists and musicians—to a great extent they live in their busy imaginations.

The Care of Farm Implements

The annual loss due to ignorance or negligence in the care of farm implements is appalling. Figures have been published from time to time showing depreciation on implements from lack of shelter and care, still many farmers winter their implements in the field where they were last used, or scattered about the farm yard. A manufacturer, if he is to prosper, must keep his production cost at the lowest possible figure. The same applies to the farmer, who is no less a manufacturer, and one of the ways in which he can materially cut down his expenses is in the proper care of his implements and tools.

All implements when not in use should be under cover, and not left exposed to the influence of the weather.

ing regulations at hand, showed an improvement. At Calgary the stocker trade was well sustained by the activity of United States buyers, who absorbed 2,583 head, while easterners took 533. Calves were weak, but prices for sheep and lambs were well maintained. At the end of the month hog grading was in effect and the market felt the benefit. At Edmonton trading in cattle was steady, United States and eastern buyers being in evidence. Dehorned cattle were most in demand. Shipments out were made under both the Dominion Live Stock ear lot policy and free freight policy. Sheep sold steadily throughout the month. Hog prices varied, but at the end prices were advancing.

The total sales of cattle, calves and hogs in the Dominion were greater last October than in the corresponding month of 1921, and of sheep considerably less.

There is more in life than work, but there would not be much life without work. Most anyone can get along on the level, but it takes extra determination and energy to climb hills.

Hospital for Sick Children
COLLEGE ST., TORONTO.

Mr. Editor:—Allying that the trend of public opinion is swinging more and more towards the equalization of the burdens which each citizen of Canada must bear, that the helping of those who are unable to help themselves occupies a much larger place in our minds, may I draw your attention to the fact that this Hospital is accomplishing great things in a field that is untouched by any other organization.

Little children from all parts of the Province, irrespective of class or creed, children who are sickly and maimed, come here and are made strong and healthy. Is not this in itself a wonderful work?

The service and the duty of the Hospital is far-reaching. As well as personal attention, both surgical and medical, for all the tiny patients, doctors and nurses are also trained to extend the mission of healing to the uttermost parts of the Province. The entire function of the Hospital must commend itself to you and your readers. It is a CHILD WELFARE work well deserving of the support of your subscribers.

Ontario Live Stock branch comments regarding trade in October are to the effect that at Toronto the cattle market was depressed by Western consignments and by a surplus of unfinished local cattle, which even a strong store cattle movement could not absorb, and that October had been the best month of the year to date for store cattle with 10,700 head, or almost a third of the total run, reshipped to the country. The veal calf trade suffered from increased beef consumption, and heavy calves, which were numerous, generally found an outlet as stockers. Although the run of lambs at times was liberal, prices were down at first, but were moving up at the close of the month.

Regarding the Montreal market, prices for cattle were generally steady during the month, although a remark among the comments is that, due to heavy shipments of Western cattle direct to packers' sidings, packer buyers were not keen bidders for butcher cattle and trading was slow. Although really good veal calves were scarce, prices for that kind were firm, but heavies were weak. The lamb market was rather erratic but the tendency was upward. Hogs were generally lower, although hogs of select weights brought \$12 to \$12.25.

At Winnipeg heavy liquidation of cattle and poorness of general quality had a depressing effect and the market in October tended to dullness. Calves were down a bit, but the sheep and lamb market as a whole continued generally active, with prices maintaining a steady tone. Hogs were a trifle lower in the middle of the month, but at the close, with the new grad-

October's Live Stock Trade.
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A Poultry Province

The report of the establishment of a large poultry community north of Toronto is in keeping with the aggressive policy inaugurated by the Provincial Department of Agriculture and the Ontario Agricultural College for greater poultry production. This farm, some 500 acres in extent, will be subdivided into 75 poultry plants, each owned independently, but worked on a semi-co-operative basis. Upward of 100,000 layers will be accommodated, and it is estimated that 100 cases or more of eggs a day will be produced when the community is fully developed. This product will be graded in accordance with the Government standard, and sold under the community trade mark direct to the consumers.

It is the intention of the promoters to develop this community along the lines used in establishing the famous "Egg City" of Petaluma, in the state of California. Organized and built entirely on the production of White Leghorns, this city has blossomed out into a model town with all modern civic improvements, and with a population of over 6,000 people. There are more than 6,000,000 hens in the district, and annually over 400 cars of eggs are shipped therefrom.

Ontario is the leading poultry province in the Dominion, closely followed by the western Province of Saskatchewan. During 1921 the number of poultry in the province was 11,458,206, which compares with 9,554,009 in the Province of Saskatchewan. At the Provincial Winter Fair at Geoph, each December, there is one of the greatest poultry shows on the continent, with an entry list that averages around 5,000 birds. In competition with poultry producers in other parts of the Dominion and the United States, Ontario has held her own, and for many years has been a consistent winner of the principal prizes.

Active Government Encouragement.

The Provincial Government has not been laggard in promoting interest in poultry raising. Poultry instructors are employed by the province, who visit all sections, giving lectures and demonstrations on the best breeds, as well as advising farmers regarding markets, etc. Sixty poultry associations have been organized in Ontario for the general advancement of this industry. In addition the Government annually distributes to the rural schools a great many purchased eggs for hatching, in an endeavor to foster an interest in poultry raising among the school children. Fifty egg circles have been established for the handling of eggs, which has resulted in the poultry raiser securing a better price for his eggs than heretofore. According to the last census there were 100 specialized farms with 500 or more birds.

There has been some talk lately of establishing at a centrally-located point in the province, a community chick hatchery and brooding station. The Provincial Department of Agriculture which is behind the scheme, claims that the hatching and brooding season comes at a time when the farmer is busy with other work and can ill afford to spare the time to give the birds careful attention, with the result that poultry is neglected—and the number of birds materially lessened. It is also claimed that by working on a co-operative basis the cost of hatching would be materially reduced. The farmer, whether he has a great or small number of eggs to hatch, could put them into the community incubator, and the incubating of eggs on a wholesale scale would considerably reduce the individual cost per eggs for hatching. This plan has been tried out with success in Saskatchewan.

Canada imports approximately five and a half million dozen eggs per annum, and exports a slightly larger number. There is an active demand for Canadian eggs both at home and abroad, and the market is as yet not fully developed. There is a great opportunity for poultry raising and egg marketing in Ontario, and the manner in which Ontario farmers are taking up this profitable industry as a sideline to agriculture augurs well for the future.

Feeding Poultry in the Winter.

The Dominion Poultry Husbandman recommends the following system of feeding: In the morning a light feed of scratch grain scattered in the litter, fresh water and, where possible, milk; at noon, a light moist mash of table scraps dried off with the dry mash mixture, or the dry mash mixture moistened with milk. Noon is also a good time to give the green feed, such as sprouted oats, mangels, cabbage, etc., the more of which the birds can be induced to eat the better. In the evening a full feed of grain scattered in the litter early enough for the birds to be able to get a full feed before time for roosting. In addition, keep a hopper of dry mash before the birds at all times. Grit, shell, charcoal and beef scraps should also be constantly before them. The necessity for a liberal supply of green food in some form, and also of animal food, which may be conveniently given in the form of milk or beef scrap, cannot be emphasized too strongly, states this authority. Careful feeding will tend to prevent egg eating and feather-pulling.



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A German cartoonist's significant view of the situation in Germany. —From the Lustige Illustrier, Berlin.