

Soils and Crops

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A Live Stock Scheme.

Co-operation is not yet complete—the foothills are not all dead. There is a matter which has been brought to my attention from time to time in the past, but more vividly of recent date, which I feel calls for some publicity, says a writer in the "Michigan Farmer." Just what to say and what to leave unsaid is a question, but we will do the best we can and abide by the results. I refer to the practice of selling the services of purebred sires and collecting in advance, fees that represent several times the value of the sire. Let me explain it thus: A smooth salesman comes to you with a proposition to place a purebred registered sire in your neighborhood free of cost to you, providing you and your neighbors will pledge a sufficient number of cows to his services.

Now, you have purebred sires preached to you through the farm press, the agricultural college, and have not seen your way clear to take care of the first cost. So this new proposition looks good to you at first sight and you fall for it and spend a day or so helping the salesman to interest your neighbors. The result is, he very soon gets away with the cash or its equivalent to pay for the services of fifty, sixty, or seventy cows at \$3 each for three years, or \$9 each. The next job for the salesman is to shift his responsibility, so he very kindly offers to sell you the bull outright for a merely nominal sum, or perhaps without paying anything extra, if you will simply care for the bull and fulfill his guarantees. Ownership is sweet, so you get a bill of sale for the bull you haven't seen, at a cost apparently of only a few service fees paid in advance, and a lot of responsibility.

You may not know it, but the salesman's next move is to find the bull he has sold you so much about, so he

hunts up the man who has him to sell and buys him for the bottom dollar. He is buying him to sell again, so cannot afford any but very conservative prices, \$100, \$125, \$150, delivered. Of course, he buys the best bulls he can for the money, but the profits are of first consideration, and in this respect the sky is the limit. I recently sold a bull for \$150 and learned upon delivery that he had been sold on the above plan and that the salesman had walked out of the community with \$450 for him. A friend of mine sold a bull some months ago for \$200 and he was placed in a community only a few miles away at a cost of \$600. I saw a bull last fall, a poorer individual than either one of these. He came from Canada and I do not know what he cost the buyer, but he cost the community in which he was placed \$800. So much for the facts, now for the comments.

Any method that encourages the use of purebred sires will mean much to the community in which it is applied. These bulls will do a lot of good in their respective communities. The plan used in financing the deal is admirable and makes it easy for any community to own a good sire. But the deplorable thing about it is that any community of farmers should allow themselves to be thus duped into paying three prices—one for the bull and two to the salesman. A little community co-operation would secure the same results and save the community two-thirds of the cash. But for lack of a little initiative, a little local leadership, a little community co-operation, it pays an enormous toll and allows itself to be exploited outlandishly. Oh, will we farmers ever come out of the wilderness? Will we ever get our eyes open, or will we forever be content to hold the bag? Verily, co-operation is still an infant. The fools in our own pack are not all dead.

Poultry

On hens and chickens there are found seven species of lice, on ducks, geese and turkeys, three.

These lice stay on the fowls practically all the time. Therefore, the only effective treatments are those which are applied directly to the fowl. At present, the most economical and the most effective remedy is sodium fluoride, a white powder which can be purchased at any drug store. A little of this powder held between the thumb and forefinger and dusted among the feathers next to the skin on the head, neck, back, breast, under the wings and below the vent will keep these various kinds of lice under control. One pound of sodium fluoride is considered enough to treat one hundred fowls.

Mites are those insects which infest poultry only at night, and hide in the crevices of the roosts and nests during the day. They can best be controlled by keeping the poultry houses and roosts clean, and by spraying the roosts and nests thoroughly with crude oil, kerosene, or some heavy coal tar preparation.

McDairy

Whenever there is a variation in the butter-fat tests, the tester is usually to blame. There are, however, a number of other things which will cause a variation in the test. One of them is the Babcock test itself, which will sometimes give readings that vary one-fifth of one per cent. on the same sample of milk tested and duplicated at the same time.

The fat percentage will also change when the milk is milked out of the strappings, the richest part of the milk. Dogs chasing the cows, or the milkers using the milk stool on his cows, or permitting loud talking in the stable at milking time will also cause variations in the fat test.

Cows in heat, those that hold up part of their milk, and others that are underfed or slack in their water supply will show a variation from their normal test.

How to Use a Hoe.

Someone has said that a gardener is no better than his tools. Even if the tools themselves are all right, ignorance of their care and use may cause the loss of much time and effort. In small gardens the hoe is the principal tool. Buy a large, strong one; good width in the blade will save many strokes that are necessary when the blade is narrow and cuts but two-thirds as much at a stroke. Naturally too, a heavy head (less cleaner, more effective work because of the greater momentum of its fall).

I have used the terms "stroke" and "fall," but properly, there should be little of the chopping motion in a hoe's manipulation. The expert's style could better be called dragging—with just enough pressure to uproot the weeds, yet impose no fatiguing strain on the worker's arms. A hoe should not hump over; it is not only tiresome but unnecessary. Most novices bend far over when they have to work close around plants, but after some practice,

accuracy of stroke will cure this. One farmer tells me that a man who understands hoeing will do fifty per cent. more work in a given time than a beginner.

Much depends on the hoe's sharpness. The American factory mechanic is reputed to spend three times as much time as the European workman sharpening his tools, but he produces nearly twice as much finished product thereby. The same principle applies to the use of garden tools; keep them sharp and in good working order.

A good, fine file is the best sharpener for your hoe—and also for the spade, grass shears and lawn-mower. Hold the hoe firmly, preferably in a vice, and aim to keep the bevel flat and at an angle of about forty-five degrees. Though the hoe wears faster, it pays (in better, easier work) to have the square edge inside. Keep the points of the blade square by carefully shaping them with the file. Learn to hoe both right and left-handed, as it is better for the tool as well as economical of strength.

Don't use one file forever. Particularly if it is used on a number of tools and for various purposes, a file gets dull, and wastes time for its user. Clean it out occasionally with the point of an awl, and use a little machine oil when filing the hoe.

I think every garden worker should have his own hoe, particularly if the workers are of greatly different height. I have said that a hoe should not stoop too much, but he will have to if the angle of hoe-blade with the handle is too acute. The blade should set at just enough less than a right angle to give the desired cutting effect when the gardener stands comfortably erect—the exact angle will depend on his height.

Handy Stoneboat.

The following gives details for the construction of a handy boat which will save much work in removing large stones from fields.

Bill of materials—Two hardwood planks two inches by twelve inches by six feet; one hardwood plank two inches by six inches by twenty-eight inches; two three-quarter inch by five-inch bolts with washers.

This stone boat is very handy in moving stones which are one to three feet in diameter. The best asset of the machine is that it requires no labor or "back work" in loading or unloading. It costs practically nothing and can be made from materials on every farm.

It is made by rounding off an end of each plank and boring a two-inch hole in that end for the chain to which the team can be attached. The planks are placed side by side four inches apart. The inside edges are bevelled. The short plank is bolted across the end opposite the round points, one bolt in each plank.

With a stone to be moved the planks are spread so that one goes on each side of the stone. A chain to which the team is attached is fastened to the hole in each plank. As the team goes ahead the planks close together and the stone is lifted and moved to a desired point. To unload, the chain is removed from one plank so the team can spread the boat, allowing the stone to rest on the ground.

Edible and Poisonous Mushrooms.

Mushrooms and toadstools are included under the collective term "fungi." There is a widespread misapprehension concerning the character of the fleshy fungi. The public generally classifies them under two main divisions—edible and poisonous—the latter only being considered edible, and embracing the several varieties of the mushroom commonly exposed for sale, and found in fields during the late summer and fall. All varieties outside of these are popularly called toadstools and avoided as being poisonous. The question is frequently asked how can one distinguish a "mushroom" from a "toadstool." There are hundreds of kinds of mushrooms most of which are edible, and but a few are poisonous. It is then a question how to distinguish the edible from the poisonous species. All so-called "tests" such as peeling, discoloration of a spoon, etc., are mythical, and afford no guarantee. The best method of knowing them is to study their characteristics one by one, starting with a common variety; have this identified by one who knows it, and then continue one's studies as opportunity offers. It is strongly advised to leave severely alone all kinds about which there is any uncertainty. Many mushrooms are nauseating to some persons but prove harmless to others, while many are edible but of poor flavor, or too small to be of any use.

Unfortunately, popular works on fungi are not common, but several reliable works are available to the student who wishes to acquaint himself with the subject, as for instance: "One Thousand American Fungi," McIlwaine, Bobbs Merrill Co.; "Mushrooms—edible and otherwise," Hard, Ohio Library Co.; "Mushrooms," Atkinson, Henry Holt & Co.; "The Agaricaceae of Michigan," C. H. Kauffman, Wynkoop, Hallenbeck, Crawford Co.

In a short article it is not possible even to describe the commonest edible varieties such as Fairy Ring (Marasmius oreades), Shaggy Mane (Coprinus comatus), Ink Cap (Coprinus atramentarius), and the ordinary field mushroom (Agaricus campestris). The two following deadly poisonous ones are described, and should be thoroughly known before anyone ever takes to eating wild mushrooms.

The Fly Agaric (Amanita muscaria). This is a very conspicuous mushroom, not resembling any other variety in the whole range of mushrooms. The cap is large, from 4 to 6 inches, rounded at first, then nearly plane; surface, when fresh, slightly viscid. Its color is subject to great variations, ranging from orange-red to yellow or almost white, the yellow color being more common. The margin of cap in mature plants is marked with radiating lines or markings. The surface is covered with thick, angular, persistent scales, and easily removed; flesh white. The gills are free, but reaching the stem. Color white rarely becoming yellow. Stem 4 to 8 inches long, shining white or pale yellowish, becoming hollow, enlarged at the base into a conspicuous bulb, marked by prominent, concentric, irregular rings. There is a ring or collar on the stem, very soft, large, white. The Fly Agaric is easily identified on account of its scaly cap, brilliantly colored; large ring, and bulbous base. It occurs along roadsides, wood-margins

Egg Laying Contests and Their Value to the Poultry Industry

The Federal Department of Agriculture through the Experimental Farm's Branch is operating ten Egg Laying Contests at the present time. A laying contest is located in each province and the competition is restricted to residents within the province itself. The Canadian Contest is conducted on the Central Experimental Farm at Ottawa and is open to the world.

Each contest begins November 1st and continues for 52 weeks. Ten birds constitute a pen.

Egg laying contests are valuable in that they show the relative value of different breeds of poultry to produce eggs and also show where the best strains of these breeds can be found. As the birds are all given the same care and attention and a careful record kept of the number of eggs laid by each individual in every pen one can tell the value of the strain as well as that of the individual bird within the pen. The pen that is composed of ten good producers is much more valuable from the breeding standpoint, than one that has one or two outstanding birds, some good producers and three or four poor producers.

High production coupled with uniformity throughout the pen is the ultimate object of the breeder of bred-to-lay birds and the only way to attain this end is to practice the breeding of high producers. Certificates of production are issued to birds according to merit, and by breeding these females to males of desirable breeding the egg production of the flocks should be very materially increased.

The securing of the high producing female is but the first step in this breeding work. Realizing the need of more advanced work along the line of poultry breeding the Department of Agriculture is about to undertake the work of issuing Registration certificates to birds of high production. The egg laying contests serve as a medium

and open woods, generally from June till frost.

The other deadly plant Amanita phalloides, or Death Cup, is 3 to 4 inches broad, commonly shining white or yellowish, but may be grey or brown, olive to amber. It is viscid when moist, smooth, oval, and finally extended, the margin is even, not marked; flesh white, not objectionable to taste, gills free from stem, largest at the middle, white. The stem is 3 to 5 inches long, generally hollow, white. The base of the stem is inserted in a semi-free white cup-shaped covering called a volva. It is of common occurrence from July to October, in woods, groves, and along borders of woods. It resembles something the common field mushroom, but a slight examination will disclose in the field mushroom the dark colored gills and the absence of the cup at the base of the stem. A. Phalloides is the most dangerous of all fungi and is responsible for most of the deaths resulting from eating mushrooms. Ten to fifteen hours may elapse before symptoms of poisoning may appear. No antidote has been found. A safe rule is to avoid eating all mushrooms having white gills, a ring on the stem, and a volva at the base of stem, combined in the same plant.—W. S. Odell, Division of Botany, Central Experimental Farm.

Tuberculosis in Cattle.

Every farmer and cattle breeder can have, and keep, his herd free of the commonest of all live stock complaints—tuberculosis. How this can be done is described in Pamphlet No. 16 of the Dominion Department of Agriculture, entitled "Bovine Tuberculosis," prepared by the Health of Animals branch under the direct supervision of the Veterinary Director General. The pamphlet conveys the knowledge in the form of questions and answers. These cover particulars regarding the Accredited Herd plan, its benefits and cost, the compensation paid by the Dominion Government for animals slaughtered, an explanation of the Bang system, sanitation, the tests required, and so on; also municipal testing requirements, the object and nature of pasteurization, the Supervised Plan of Testing, testing by private practitioner with departmentally supplied tuberculin, and how swine and poultry become infected. The one great truth to be learnt from the pamphlet is that to have healthy live stock of any kind, strict regard must be paid to cleanliness, to sanitation, to ventilation, and to light.

The first thing that a government inspector will do is to look around to see that the buildings are clean and can be kept sanitary, and to locate the manure pile and ascertain where the drainage goes to. Satisfied on these points he will commence the test.

To keep cabbage from bursting, pull each head just enough to break a large number of the small rootlets, but not enough to let the head fall or lean to one side. This will lessen the amount of moisture and plant-food taken into the plant and the development of the head will be slower, consequently the bursting will cease. In such cases the cabbage will remain perfect and uninjured, and this gives the gardener an extra amount of time to use the cabbage or dispose of it. Heads of cabbage about to burst, or even those showing the first split, can be kept for several weeks, without damage, by this method.

Parents as Educators

Inculcating Truth in the Child—By Mary F. Scott

First! Be truthful yourself! Do not cherish the delusion that you can tell the child anything, and be believed. For you cannot!

At first the child will believe, but—after repeated misrepresentations, one will find that the thing told will be taken with a grain of salt.

As an illustration: If you have promised the child a visit to the park on a certain day, and then feel too tired, after a hard morning's work, how are you going to make him understand?

"Why, mother, you said you'd take me this afternoon," cried surprised Bobbie.

"Yes, I know," impatiently, "but you will have to amuse yourself at home to-day. I'm too tired to walk that far."

A very grieved and disappointed child is left to his own devices, with a prodigious problem to be worked out

as to why his playtime hour has not been realized.

If a promise be made to a child, keep it. If, as sometimes happens, it is impossible to carry out that promise, explain carefully just why it cannot be fulfilled at that time.

Be truthful! To questions asked, "I know they are legion," answer truthfully, explain carefully. It may take time away from other duties, but one will be well repaid by the contented happy spirit born in the child when the information sought is gladly given.

Trust will be fostered, also,—trust in the one who enlightens ignorance with knowledge; then will come trust in the world at large. The fountain-head of knowledge for the children is centred in you who have the shaping of these young lives in your hands. Let truthfulness be the basic test of your capability.

The Farmer and Poultry.

The average farmer knows how much seed he sows to the acre and the value of the crop he harvests; the daily milk production of each cow and the cash returns for the milk sold to the factory; or the number of barrels of apples harvested from each tree and the different varieties in the orchard. How many farmers in Canada know how many eggs they are getting from their poultry flock, how many hens have actually laid during the year, or whether their poultry is pure-bred?

It has been said that the farmer has neither the time nor the inclination to give poultry the attention it deserves. The hen has cackled but not laid eggs, just as a horse would continue to graze and roam about if not broken to harness. The poultry has been left to the women and the children on the farm and as long as there have been sufficient eggs to take to the village store during the periods of high production to trade for merchandise, the poultry has been voted as useful but never as something to be developed as a farm asset. During the last few years the prices ruling for eggs and poultry have attracted the attention of some farmers and as a result we find in a report recently issued by the Ontario Department of Agriculture the phrase most commonly used in the reports from the various counties on crop and stock production "poultry is one of the best paying things on the farm."

The mere keeping of poultry is not sufficient, however; the business must be undertaken with the same thorough and efficient management as is applied to other farming activities. It is an easy matter to produce eggs but it is not such an easy matter to produce these eggs economically. By this we mean getting maximum production from each individual hen at a minimum cost for feed. This can only be done through the systematic breeding of birds from good laying strains and the keeping of an accurate record of production, cost and revenue. There are farmers entering their flocks in the Canadian Record of Performance increasing every year.

The average production per hen on the farms in Canada is between seven and seven dozen eggs. No hen should be kept over and fed a second season that does not lay well in its pullet year. It does not pay to keep hens merely for the purpose of cleaning up what would otherwise be wasted, unless that waste is being converted into a marketable food product.

The interesting of some of the young people around the farm in such a thing as intelligent poultry breeding will be an influence towards keeping them on the farm, and will help in the building of character.—Dominion Live Stock Branch.

Make the Fairs a Success.

It would seem that the importance and helpful possibilities of the agricultural fairs are not properly appreciated by the average farmer, else the space for exhibits would have to be enlarged and the capacity of the grounds would have to be increased in most cases. Under present conditions the good fairs are successful largely because of good management in the stimulation of exhibits as well as attendance. But if we all took the interest in these fairs which their importance and possibilities warrant, there would be no lack of either exhibits or attendance at either community, county, district or state events.

The factor which makes for the highest success of any agricultural fair is a big attendance of farmers, who study the exhibits carefully and gather a knowledge from such study and comparison which makes them better farmers, since the highest success of any fair is measured by its educational value to its patrons. Every farmer in Ontario who can possibly arrange to do so should attend at least one of the fall fairs in his district. It is an expenditure of a little time and money in a manner which can be made to return profitable cash dividends, and at the same time afford the family an enjoyable outing.

"The moon has practically no air or water," says Dr. Crommelin, of Greenwich Royal Observatory, who states that, for this reason, there can be no form of animal life there.

THE CHILDREN'S HOUR

How a Little Boy Rose to Musical Fame.

'Way back about the year 1770 a country blacksmith in a little place near Exeter, England, began to miss his horseshoes, which were mysteriously disappearing one or two at a time. Keeping watch, he at last discovered the guilty culprit to be a harmless little boy about six years old. Following him home, his parents were duly informed and the boy was commanded to tell what he had done with the stolen horseshoes. Leading the way to an upper room, he showed them. From the twenty or thirty he had taken he had selected eight and hung them up by strings, and these when struck lightly by a piece of iron, gave out the notes of the musical scale—the largest one gave the deepest tone, the smallest one the highest. On this crude instrument the boy had taught himself to play tunes.

The minister, Rev. Mr. Eastcott, was appealed to in the matter. No doubt he gave the little chap serious admonition on the sin of stealing, but after that he had the good sense to advise the boy's parents to give him a musical education, and so they apprenticed him to an organist in Exeter named Jackson, the same Jackson, by the way, who composed the "Te Deum in F," which has long been a favorite with many church choirs. When the boy had grown older and his apprenticeship was finished he went to London, where he wrote a great deal of music for the theatre, that is, incidental music for various plays new and old. He also wrote a great many songs which were very popular in their day. One of them, "The Boy of Biscay," is not yet quite forgotten. The boy's name was John Davy.

Better Livestock Market Prospects.

The Dominion Live Stock Commissioner has directed attention to the disastrous effect the rushing of unfinished grass cattle to market has upon prices and the trade generally. Many recent reports have shown this. Market conditions in Canada show up favorably when compared with those prevailing elsewhere, and the tendency of prices downwards toward the usual autumn levels might be checked, if not completely arrested, were unfinished cattle kept either wholly or partially off the market at that season. When the situation has been particularly active, that is in April and May, a supply of unfinished grass cattle has invariably had depressing results.

Another ill-advised feature is the rushing of 75 per cent. of the lamb crop to market in September, October and November. Reference is also made to the unlimited dumping of chilled and frozen Argentine stocks on the British market. This has practically cut off the only outlet that Australia and New Zealand have, and prices have been brought to wretchedly low levels. In proof of which the comparative prices that prevailed per hundredweight on June 1, this year, are quoted as follows: Choice steers, Canada \$8, Australia \$5.30, New Zealand \$3.41. Good steers, Canada \$7.50, Australia \$4.32, New Zealand \$2.39. Choice lambs, Canada \$12 to \$19.25, Australia \$6.14, New Zealand \$5.49. Recently Queensland, Australia, sold a thousand cows of the range at \$2.09 per head, prime bullocks at \$3.89 per hundredweight and good bullocks at \$2 per hundredweight. The Branch is decidedly optimistic as to the outlook, and indicates that United States buyers are busy in Western Canada.

The hardest part of having a tooth pulled is the anticipation.

Let's not forget that petting produces more milk than milk stool manipulation.

The old pedestrian who puts on new shoes at sunrise never boasts how many miles he will go before sunset.

Farming and mining are two different things. It is all right for a miner to be a farmer if he wants to, but it is bad business for a farmer to be a miner.

Happiness the Keynote of School Music.

That school music has made greater progress than any other school subject in the past few years as far as this continent is concerned is the carefully formed opinion of a prominent educationalist who lately made this assertion in public. While there are various reasons for this, he attributes the encouraging results largely to the introduction of music appreciation as a definite study for the boys and girls in both public and high schools. The systematic teaching of music appreciation has, of course, been made comparatively easy by the use of the phonograph and the player piano.

Mr. George H. Gartlan, Director of Music in the public schools of New York, has been contributing a series of articles on "Music and Public Education" to the Musical Courier. In one of the latest of these contributions Mr. Gartlan says this: "The mission of school music is no longer to teach only the cold side, known as sight reading, but to make the whole being respond to the warmth of music as a contribution of better living. To accomplish this, music appreciation has been introduced as a part of many of our courses of study. Extra music time may have to be added to carry out this program, but educators are willing to concede that the time is well spent. A further development in music appreciation has been the carrying on of the music memory contest. The actual contest idea has been carefully subordinated to the greater instruction of the masses, and every year millions of school children all over the continent are being trained to recognize and name the melodies from the great masters. At present this development is being confined to the upper grades of the elementary school, but the time is not far distant when the plan will be generally extended to all the grades, and even the kindergarten will have its share of listening lessons. It is true that in many school systems appreciation is part of the kindergarten and primary curriculum, but no definite plans have as yet been formulated to make the subject a nation-wide accomplishment."

"The most positive change has taken place in this branch of school music. A generation ago the emphasis was placed here to make pupils expert readers. The plan fell by its own weight, because only the few ever reached the point of proficiency which warranted the strong insistence. To-day the approach to music reading is accomplished through the channel of interest. The child is first trained to do the thing as a whole before he is asked to analyze the music from a technical standpoint. Formalism still exists and will exist as long as we have educators who can only think along such lines. Music is not merely the learning of sound combinations through intervals, but it must be a complete understanding of the content of music as a whole.

"The reaction to the change in instruction has been a finer response by the pupils and teachers, a broader understanding of the subject and a greater joy in the actual school life in music. So many children left school not only unfamiliar with music but with almost an abhorrence of the subject. Happiness is the keynote, and it can be accomplished only through the great joy of doing."

School Days Ahead.

These hot, busy days are not conducive to meditation about school, neither on the part of the boys and girls who in a few weeks will be back at their books, nor on the part of the parents who pay the bills. But the days go on and if not already arranged for it is time that teachers be selected to carry on this very important work for the coming season.

In a good many districts the same teacher will be invited back for another year. We are wondering in this connection, if it would not add much to the school work of 1922-1923, and to the spirit of co-operation between parents, teacher and students, if the families making up the school district should get together and have a real surprise party for the one who is to have the supervision of the children in charge the next ten months?

Somewhat we have a feeling that such a celebration would make the school tax money go much further and would help materially in building up a community spirit. With that developed, the district will be in a position to undertake other worthwhile things.

Acting without thinking is like shooting without aiming.

Talk may sell stock in air castles, but it does not produce crops.

The farm is fortunate which has intelligent management.

We may talk about the beauty of the green fields out yonder, but somehow we are always glad to get back home.

Ever since vitamins were discovered it has been thought that of animal tissue the heart, liver and kidneys contained most of them. Recent tests show that vitamins also exist in the muscle fibre of beef, veal, mutton, lamb and pork, and that pork contains a good supply of them.