

Soils and Crops

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More Dollars From the Fall Calves.

The average dairy farmer has just passed through the period of most strenuous field activities and of heavy milking. Too many have been both raising crops and milking a string of cows at the same time, and now face the proposition of a barnful of feed and only a few cows to milk.

A better balance of work and greater profit to the farmer results where cows are bred to calve in the fall. As the work of caring for the crops draws to a close, the busy time in the barn begins. The cows will be coming fresh at that time. There will be plenty of time for giving them any needed attention, and for looking after the young.

Records have shown that under the system of having cows calve in the fall from fifteen to twenty per cent more milk is secured during the year. Then, too, the price received during the winter is higher. Taken altogether the greater yield and higher prices makes an inducement in dollars that is convincing.

Of course, the dairyman who retails his produce directly to the consumer must have his cows freshen at various times throughout the year in order to be sure of always having enough milk to supply his customers. But the average dairyman, who sells to the commercial market, is not under this handicap. However, too often most of his cows freshen in the early spring or late winter, milk well during the summer, and are nearly dry when cold weather comes again. As a rule, this is very noticeable because it is unnecessary.

Let's see if there really is a saving when the cows freshen between October and December. First of all, milk and other dairy products bring a better price during the winter. That being true it means more money for us to have the best producing herd during this season. In the second place, the average farmer is not so busy in the winter as in the spring and summer, so he can better afford to give more time to his dairy herd. If the cows freshen in late fall and early winter, milking requires less time during the busy season. Then, too, cattle which freshen in December keep up a good flow of milk longer, because they are turned out on spring pasture just when they ordinarily would begin to fall off. Nor is that all. Calves born in the winter will

get better care for the first two or three months when they need it the most. Then when they are turned out to pasture in the spring they are better able to take care of themselves. Milk and milk products are more easily cared for during winter, as less artificial refrigeration is needed.

Winter dairying helps to solve the hired man problem. It makes the working hours of summer shorter and more regular, and removes dairying from the slave class of a sixteen-hour day. It provides steady work during the winter, thus keeping some of the good men from drifting to the cities.

The first thing that the fall calf needs is a clean, dry, well-ventilated sunny pen. Young calves never do well in damp, dirty quarters, contrary to the belief of too many dairymen by the kind of pens that they keep their stock in. A good floor made of cement, or cork brick, well bedded with short straw, shavings or sawdust to absorb the liquid manure will facilitate cleaning and keep the calves warm. A wood floor does fairly well if the joints are laid closely and then treated to a coat of creosote to prevent the absorption of liquid manure, otherwise wood is very unsanitary. A floor of earth is practically useless as it "cannot be kept sanitary."

Good fresh air in the calf stable is of great importance with the young calf to give it a strong, vigorous constitution and strong vitality. The calf will be the dairy cow within two years, so if good, productive cows are expected the calf needs to be kept strong and thrifty from the start.

Sunshine is very necessary to the vigor of all young growing animals. It is an excellent germicide and, for that reason, serves to purify the surroundings and to keep the young calf healthy. It is always well to place the calf pens in a part of the stable where plenty of direct sunshine may enter.

The advantage of raising fall calves is that they are ready to put out to pasture and will continue to grow, and will not suffer from a setback, as do many spring stock.

Too often the spring calf is ready to wean in the fall about the time winter sets in, so that it is liable to go through the winter without making very much growth. The fall calf, by all means the best time for dairy calves to come, both from the standpoint of the calf and the profits of the farmer.



Three-Quarters of a Century on the Lakes

Marcus Aurelius Hitchcock, of Point Edward, Ontario, has fished and sailed the Great Lakes for seventy-three years, and has saved fourteen persons from drowning. He has just celebrated his eighty-second birthday, but is preparing to do fancy figure skating again this winter.

cer, "are all threatened with tuberculosis, mostly of bovine origin."

"What do you mean by bovine?" asked Mason.

"From cows," said the health officer. "By giving this fresh air treatment, plenty of rest, and lots of nourishing food we can usually arrest and cure the disease. Of course, it is expensive treatment. Naturally, though, we prefer to cut off the tuberculosis germs before they reach the children. It is the more sensible way."

John Mason was greatly impressed. The little wan faces burned themselves into his brain. He was silent on the way back to the municipal offices. On shaking hands with the health officer he said:

"Thank you for your consideration. This has been an interesting day to me. I didn't know about these things before. I didn't understand why you were doing them. I will follow any instructions you send me to the letter and you will never have another complaint about our milk if I can help it. Good day."

"Good day," said the health officer, as he turned to enter his office.

That evening John Mason was strangely silent. He had told his wife most of his experiences of the day but not all. After supper John Mason looked out of the window for a long while in silence. The moon was shining brilliantly over the fields.

"Mary," he asked, "what was it the doctor said our little Jack died of?" "Bovine tuberculosis," replied his wife.

"Bovine tuberculosis," repeated her husband mechanically. "My God!"

Sometimes there are mongrel hens that are great layers, but it is not often so. However, where a flock of mongrels is giving reasonably good returns, it will be well to use only purebred male hens in the flocks.

Some years ago a poultry expert made the discovery that high winter egg production is inherited by pullets only from their sires, and not from their dams. This is a tip to the farmer who wants to hold on to his mongrel stock, and still get more winter eggs. To purchase purebred males for breeding, that represent records of say 200, is a wise move, even though such birds may cost from \$10 to \$25 each.

Purebred hens lay eggs more uniform in size, shape and color than eggs from mongrels; that the meat of purebred fowls is superior, and the purebred fowls present a better appearance and are more profitable. The farmer should gradually get rid of the mongrel hens and replace them with some good purebred stock from a heavy-laying strain. There is no one best breed.

The flock should be composed of strong, vigorous stock—birds which have strong legs, set well apart. They should have long, broad backs, broad full chests and full abdomens. All of these indicate laying capacity.

Half the breweries in the world are in Germany.

"I never knew about that before," said Mason.

"Look here," said the health officer, glancing at his watch. "I am going up to the Preventorium now. Children threatened with tuberculosis are kept there. Would you like to drive there with me? You will find it interesting. I think, after this talk."

"All right," said Mason. "My train doesn't go till 4.30. I have lots of time."

Half an hour later the health officer and Mason entered the Preventorium. On open sheltered verandahs exposed to the air and sunshine were ten cots, each occupied by a child. The children were sitting up and a teacher garbed in out-door clothing was instructing them.

"These youngsters," said the offi-

Fall Preparation for the Vegetable Garden.

Probably no effort is so well repaid as that given to the development of a good vegetable garden. It is wise to make preparation for this in the fall, in order to realize the benefits accruing from the early sowing of many vegetable crops. There is really no good reason why the vegetable garden should not be prepared in the fall, except that the time necessary to do so is usually not given to it. It is assumed that a certain area is set aside for the vegetable garden, and this is not the case, by all means, set aside a certain plot now, locating it reasonably near the house so that vegetables may be conveniently gathered with a minimum loss of time to the housewife.

Apply twenty to twenty-five tons of stable manure per acre. Ten pounds to the square yard is equal to twenty-four tons per acre. Plow this six to eight inches deep. If it cannot be plowed, dig it in. The amount of manure to apply will vary according to the way the soil has been previously manured. It is not wise to over-fertilize, and if annual applications are made, probably five pounds per square yard will be quite sufficient.

It is desirable that certain areas should be ridged or mounded, to permit of ready drainings and early drying out of the soil. In these, carrots, beets and lettuce for very early use are seeded. Here also cabbage, cauliflower and celery are started for planting out later. There is very often difficulty in getting such plants in the spring. This may be overcome by giving a little thought now to the development of a spot where seed may be sown just as soon as the surface soil is dry to the depth of one or two inches. It is quite often possible to sow seeds outside on such a plot about the middle of April. The only reason why onions are so seldom a success in this country is that the seed in the soil the middle of May when they should have been planted a month earlier. For this early spring seeding surface working of the soil is all that is required, if the land has been fall prepared, and this can be done early if good drainage is provided by mounding up strips three to four feet wide as already indicated with a slight surface slope to give drainage.

It will be understood that, for spring growth, in addition to heat a readily available food supply is necessary. In old garden areas this is usually present, but if the garden plot is new, it may be necessary to use a little quick acting fertilizer to give the crops a start. One ounce per square yard of nitrate of soda or other active fertilizer is equal to three hundred pounds per acre; this amount is sufficient for any vegetable crop. If fertilizers are applied, it is wise not to make the mistake, so often made, of applying too large an amount without thoroughly mixing it with the soil.

Surface applications of fertilizers like nitrate of soda very often kill the young plant just as it germinates; and for that reason it is much better to depend upon an application of stable manure well worked into the soil the previous fall. Many good prospects have been blighted by not using good judgment in the application of commercial fertilizers to small areas, either through applying too much, or through not thoroughly mixing into the soil, before seeding, that which has been applied.

Five Bushels More Corn Per Acre.

If every farmer would pick seed-corn in the field from the best hills before frost, dry it well and store it in a safe place for the winter, the average yield would be boosted five bushels an acre. Tests show that this estimate is not too low.

In picking seed-corn, take ears that are well dent, and that hang down. Cobs should be well filled. Pick ears with tips nearly as large as the butts. The ears should not have more than sixteen or eighteen rows of kernels, and should not be high or low on the stalk. Don't pick from a weak or fallen stalk. Pick 100 ears for every acre to be planted next year.

The first step after picking good seed-corn is to dry it thoroughly. One seed-corn doesn't grow properly, is because of failure to dry it rapidly and thoroughly after it is gathered. When first gathered, corn often contains from 20 to 25 per cent of moisture and may be greatly injured within a day if allowed to heat or freeze.

Store the seed in a dry place where there is a free circulation of air. If the weather is very cool or damp it is best to put the ears in a room which is heated for at least a part of the day, so that they may dry out rapidly. They should never be piled together.

PREPARING FOR ANOTHER BIG CROP.

Canadian farmers throughout the west are now preparing their farms, by plowing and harrowing, so that they will repeat the bumper crop they yielded this year. The picture shows how some of the work is being done.



Parents as Educators

Teaching Efficiency in All Things.

BY EDITH LOCHRIDGE REID.

A business man not long ago was complaining seriously of his inefficient office help and he remarked, "The trouble is, these folks never learned to use their heads when they were small." Now this man was very close to one-hundred per cent. correct in his statement. Too many children are not trained at home to make decisions, take responsibility according to their age and strength, or meet emergencies without shrinking. Let us say that Bobbie's duty is to pick up his playthings. But he picks up two or three and leaves the rest scattered about. Right there he should be taught a lesson in thoroughness. Very young children can be taught to hang up their coats and hats if the books are placed within their reach, and thus they learn the lesson of order and of care of their clothes.

Let us suppose that Dorothy is asked to wipe the dishes. But she asks, "Mother, where's the towel?" and calls from upstairs "I can't find my apron!" and then she asks, "Where does this pitcher belong?" Some mothers expend as much energy getting a child ready to do a thing as they would use in doing it themselves. Let Dorothy look around until she finds the towel, there's a place for it and if she uses her head a little she will discover both the towel and her apron without calling to mother. If the daughter is dusting, see that she does well what she attempts and that it does not have to be gone over by mother afterwards. This is the most helpful method for mother, besides making little daughter competent, and a competent person acquires poise and confidence naturally.

"I want you to do an errand, son," says mother, and instantly she is besieged with a volley of questions—"Where's the basket?" "Where's my pocket book?" "I can't find my roller skates." And if this mother is not using the efficiency method, she will

but should be placed so that they do not touch one another.

A good way to arrange the ears is to string them with a binder twine, tying each ear around the middle and putting as many ears on a string as are convenient to handle. The strings of ears are then hung in a loft or shed.

Another way is to make wire hangers by cutting apart wire fencing. Bend up the cross stays and stick an ear on each one. Many special kinds of racks or frames are used, but these, while convenient, are not necessary. Any arrangement will be satisfactory, provided it dries the ears thoroughly and rapidly.

After the seed is thoroughly dried, it may either be left as it is then arranged, or be stored in bulk. However, it must not be allowed to freeze nor to absorb an excess of moisture during the winter. Corn, although dry, will absorb much moisture from damp air.

If destructive insects appear, they may be killed by placing carbon bisulphide in an open-dish and setting it above the corn in a practically airtight room, bin or box. A pound of this material is required for a room or bin that measures ten feet each way, or for 1,000 cubic feet of space.

The Storage of Vegetables.

The storage of vegetables is not satisfactory in a great many cellars, because the temperature is kept too high. There is a natural desire to keep the cellar warm, of course, because this materially aids in maintaining comfortable rooms above. The warm cellar, however, particularly if the floor is of cement, has a dry atmosphere, and vegetables will badly deteriorate. On the other hand, if the cellar is warm and moist, growth and rotting are more likely to take place. The dry, warm cellar is favorable to the storage of squash and pumpkins and only add suitable for vegetables other than these. Temperature is really the prime factor in the successful storage of vegetable crops. A temperature slightly above freezing will carry all vegetables in fresh condition for the longest period and with the minimum of loss.

It is wise to have the vegetable storage room separated from the main cellar. This room should have connections with the outside through which a free circulation of outside air may be maintained, probably an open cellar window screened with cotton would be quite satisfactory until cold weather sets in, when, of course, additional protection would be necessary. A glass window hinged on the inside

be tired out simply making preparation for the trip. "O I'd rather do things myself than get the children ready to help me," is often the excuse; but that is decidedly the wrong attitude for a mother to take, if she considers both herself and the child. Let the children find out by experience where things are and they'll soon be glad to take responsibility when they are trained to assume it. Even very young children will surprise you in making deductions and following out difficulties to a logical solution.

How often we see households where there is a panic from rising time until the last child is off to school. "Come, now, it's seven-thirty—you'll be late if you don't hurry. It's cold this morning and rainy, too. Wear your mittens and rubbers and be sure to get a handkerchief." Thus mother follows the boys and girls about, and they know she won't let them be late or forget anything, so they are utterly unconscious of any responsibility in the matter.

Now the wise mother whose household is built on methods of efficiency will let the children be late JUST ONCE if necessary. That will be enough. The disapproval of teacher and school-mates will do more than months of talking and urging on mother's part, and in addition the children will have been thrown on their own responsibility. The share of the burden thus lifted from mother in no way equals the great gain made by the children in self-reliance.

A child at five is forming most of the personal habits that he will use at twenty, and just so far as mother does things for him now, so much will his efficiency be reduced in later life.

Let's make the children see that to stand up under responsibility and to cultivate resources within themselves are praiseworthy achievements. Only thus do the boys and girls grasp the idea of TRUE SERVICE.

THE CHILDREN'S HOUR

The Story of "Polly Ann."

Whether you are a lover of birds or just an ordinary person with human interest, this story, related by Mrs. Clifton Lower, student and admirer of birds and fish, should appeal to you:

Polly Ann, a parrot, who for many years made her home in Lower's bird shoppe, was the children's friend, and although she has been in "bird heaven" two years, yet the children still ask Mrs. Lower for stories of Polly, the wonderful bird who talked and amused them. Polly Ann was only twenty-two years old, yet she was the "mother" and guardian of the bird shoppe. When "Toty," the finch, escaped through the wire of his cage, chirping tauntingly of his freedom to the other birds, Polly Ann called for help until someone came to capture the fly-away. She seemed to know that he would be helpless in the outside world with no one to give him his food and care.

The day that Big Billy, the canary, almost hung himself by catching his head between the brass bars of his home, the parrot called loudly, but the door of the shoppe was closed, and, unable to make anyone hear, in desperation she flew from her stand against the door, stunning herself, but bringing help for Billy.

Hour after hour she would whistle for the invisible pup, meow like a kitten, crow like a rooster, or imitate wild birds to amuse her audience of little tots, and the greater the number to admire her, the more she was pleased, for Ann was a vain little bird. Her spells of merry laughter were contagious, and she delighted in starting a good laugh among the "grown ups" as well as little ones. Polly Ann was very gentle with her young audience, and was never known to bite, although she would scold some of those who became too familiar.

It is said she had a vocabulary of more than eighty words, which is very remarkable for a parrot. She could say almost anything. A few days before Polly Ann passed on she saved the lives of many of her goldfish neighbors. Each night she called for help, and finally made her master understand. When the lights were suddenly snapped on, one evening, a huge rat was caught sitting on the edge of the goldfish tank, making his meal of the shiny little pets.

Polly Ann might have lived more than her score and two, for some parrots have attained the age of seventy-five years, but some person with no love for our feathered friend placed poison in her drinking cup. She knew that she was going to die and begged to be held until the last. Polly Ann is gone, but the children have not forgotten.

Value of Potato.

The potato is one of the most valuable plants we have. Besides being one of the most necessary articles of food, it has a variety of other uses. A great quantity of the starch used in our laundries is made from it, and after the starch has all been separated from the pulp, what is left is used in the manufacture of boxes. From the stems and leaves of the plant a fluid that produces sleep is made. In many places, bread, cake and puddings are made of potato flour.

A mulberry tree, still growing in the City of London and bearing a crop of fruit every year, is said to date back to before 1666.

About five per cent. of the weight of a plant comes from the soil and ninety-five per cent. comes from matter built out of thin air.

The Romans were acquainted with the principle of the rotation of crops, but the more common practice was to let wheat land lie fallow every year.—H. S. Jones, Roman History.

The great rural interests are human interests, and good crops are of little value to the farmer unless they open the door to a good kind of life on the farm.—Theodore Roosevelt.

Top dressing wheat with manure or straw, a ton or so to the acre, is the best insurance against winter-killing. This application should be made soon, after fall seeding, or early in winter, evenly and not too thick, with a fork or manure-spreader. Straw can be applied best with a straw-spreader. Most experiment station work supports the plan of top dressing. The loss from winter-killing under ordinary conditions sometimes amounts to one-third of a crop, hence the importance of top dressing to prevent this loss. Besides protecting the wheat, top dressing prevents blowing of the soil and evaporation of moisture.

The Plowman

Plowman,
As you turn sod,
You are worker
With mighty God.

Think not
Such task lowly;
Ground He made
Still is holy.
—Paisley Turner.

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