

Soils and Crops

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The Modern Silo and Farm Management.

The silo fits in well to our average farm management. This is assuming that the owner of a silo keeps sufficient stock on the farm to warrant such an equipment, let us say ten head or more. The silo is in keeping with economic farm practice as it stands ever ready to insure a crop of forage or fodder. In times of drought, early frost or hail, what has been grown can be saved. The best farm-grown forage and the best of a good and cheap ration are the principal values of the silo.

To best arrange the work of the farm so that each department can be made to turn a profit is one of the important questions of the average farmer. Where silos are added to the farm buildings a change of farm management must follow. Less hay is needed, less land is required for pasture, more land must be used for corn or at least sufficient corn must be planted to fill the silo. This corn can be planted thicker than where ears alone are desired. An early maturing variety is generally to be preferred.

The filling season requires planning and this should be done ahead of time in order to secure sufficient labor. If exchange of work is desired plan to exchange with farmers who also fill silos. If this cannot be arranged for, plan to exchange work with farmers who have other rush seasons coming at earlier or later periods. In grain growing sections the threshing is a similar kind of work and is generally done after silo filling. Special work like bean threshing, clover-hulling, alfalfa threshing, grass seed threshing, fruit picking, etc., as a rule re-

quires extra help and the man with the silo can arrange to exchange so that he can have his silo filled.

"The silo is the cheapest known source of digestible carbohydrates." This is a truth well proven by many of the experiment stations and practical feeders, therefore to keep live stock and to keep it economically means the use of a silo, is such is possible, and it means that the work of the farm must be planned to accommodate this arrangement. Sufficient stock should be kept on the farm to consume the rough forages and to give a steadiness to the income and furnish work throughout the year. Where silos are filled a rotation of crops can easily be arranged as the corn designed for the silo is entirely removed and the land can be plowed in the fall and put into winter wheat, rye, or alfalfa. Where alfalfa is desired an early variety of corn should be planted and should be cut before the first of September so that the land can be quickly put in condition and planted by the first. This will give sufficient growth of the plant to warrant its living through the winter.

Where land is high it is desirable to use both a winter and summer silo. It is difficult indeed to obtain a revenue or profit from high-priced land in pasture. It does not grow sufficient forage to warrant a profit and the silo can be much more economically used, providing at least six times more feed than pasture. Arrange to have fodder designed for the silo planted close to the farm buildings, thus preventing a long haul at filling time. It is always wise to grow the bulky forage ration on the farm. If extra feed must be purchased it is cheaper to buy concentrates than rough forage.

Paint Puts Profits Into Your Pockets

There is probably no one point more neglected in the average farm home than the judicious use of paint, not only on the house and outbuildings, but also on machinery and various agricultural implements.

It is the rule rather than the exception in some sections to see houses, farm buildings and farm implements sadly in need of paint. The idea seems to be prevalent that paint is used solely for ornamental purposes, and its use is often regarded as a luxury rather than a necessity. While paint does, of course, serve to improve the appearance of property, it is far more useful for protection than for ornament.

A small amount of money and work expended in keeping houses or other farm buildings, or machinery, properly painted will add greatly to the length of their life. Paint puts profit into your pockets. Another valuable thing accomplished by painting is the improved sanitary conditions of buildings and outhouses.

Much of the work of painting can be done by the owner of the place, provided he has the time. The following pointers will help:

Staining and Varnishing.

Staining and varnishing are easily done, but I do not advise an inexperienced man to try the graining part; only an expert can do that. Graining is simply rubbing some color very thinly on a suitably prepared ground color, a mere glaze of color, then combing and wiping out to imitate the natural grain of woods. Easily said but difficult to do, unless you will be satisfied with a poor imitation.

Staining will do very well in place of graining, and the stain may be either a thin oil and turpentine stain, a water stain, or an oil stain. Better get the stain from the store, ready to apply. Paint the wood with lead paint, colored to suit the color of the stain; for oak the ground color should be a straw or buff color; for walnut or other dark wood, make the ground drab or dark buff. Cherry stain looks best over a light reddish ground. The store stain can be had prepared in varnish, and a coat of this, put on liberally, will make a fine finish. After being sandpapered lightly it may have another coat.

To stain bare wood use water stain or oil stain. Soft woods take oil and water stains best. Hard woods need some turpentine with the oil; or water stain will do for them. When you have coated the surface with the stain, at once begin wiping off the surplus, leaving almost no stain on the surface; this will bring out the grain of the wood nicely. It is wonderful what a fine effect can be had on hard pine with oil stain, colored with burnt umber for walnut or dark oak, or with raw sienna and a little burnt umber for light or medium oak.

After applying the stain, rub it off with a cloth, leaving the surface quite dry; when the stain has become dry, say next day, rub on some wax finish, which is simply wax melted in turpentine. Paint stores sell it. One coat well rubbed in will do. Rub the wax well, to a polish.

If we had fireproofed the shingles on the large farmhouse we lived in some years ago we would have escaped a very bad fire which destroyed all the buildings except the huge walls. A neighbor burned a great bunch of dry hedge trimmings, and the wind carried a spark to our roof.

Any good mineral paint is more or less proof against such an accident. A very dry old shingle roof will blaze from a very tiny spark. A tiny spark, falling on a painted roof, will die out and do no harm.

Lime-water makes a good fire resistant; in fact, whitewash or water from slaked lime makes one of the most efficient fire resistants for a roof. Saturate the shingles with the lime-water or lime wash. The white color may be tempered by the addition of some dark mineral paint.

To make up a pot of white paint in oil, have ready two clean paint pots. Into one put seven pounds of white lead ground in oil, and about two tablespoonfuls of drying japan; mix these together, add a little raw linseed-oil and mix again; this should form a stiff paste. If outside paint is desired, add raw oil enough to form a paint of the usual consistency; strain into the other pot through cheesecloth. The paint is then ready for use, but will be better for standing a day longer. If the paint is wanted for inside use, thin the stiff paste with turpentine. If color is desired it may be added and mixed in while the mass is in the paste form.

To Paint Old Boarding.

If you have any old weather-boarding to paint, say the barn or other farm building, the first coat will soak in as into a sponge. The dry wood should be filled with some cheap but good paint. Take twenty pounds whitening and mix to a paste with a half and half mixture of water and benzine; then mix up with a little linseed-oil fifty pounds of white lead ground in oil. This will form a paste; mix with the whitening mass; use a paddle to mix to a stiff paste. Then mix equal parts of raw linseed-oil and sweet milk; add the milk to the oil a little at a time and mix well. Turn the paste into this mixture, thin the entire mass to the usual paint consistency, then apply. This works nicely under the brush and gives a very good surface. When dry you may apply a coat of any good paint, white or dark. These two coats will give as solid a job as three coats of the ordinary paints.

Before painting metal, such as roofs, spouts and machinery, make the surface perfectly clean. Never apply paint over rust. In removing rust, scrape down to the bare metal. Oil and grease on roofing and spouts must be removed by scrubbing with soap and water, or rubbing with rags dampened with benzine; otherwise paint will not stick.

Publications For Farmers.

The new list of publications of the Department of Agriculture at Ottawa contains titles of nearly three hundred and fifty bulletins, circulars and other pamphlets that deal with agricultural practices. These cover the whole range of agricultural and horticultural pursuits, including dairying, field crops, live stock, orchard and garden crops, poultry, insects and plant diseases, farm building construction, farm machinery and many other topics. The subjects are arranged alphabetically under general titles. Not only are the lists themselves available from the Publications Branch of the Department but any of the publications therein contained.

Buy Thrift Stamps.

Poultry

Limited feeding for young chicks during the first few days and weeks after hatching is advised by a poultry expert.

"Practice retarded or limited early feeding. Nature has provided the newly hatched chick with a 'bread basket' containing sufficient food to last from sixty to seventy-two hours. Before emerging from the shell the yolk is absorbed into the body of the chick for nourishment during the first three days of its existence. Do not feed too soon."

First day—Leave chicks in incubator and supply more pure air.

Second day—Provide sour milk in shallow pans; also feed some chick grit.

Third day—Give first solid food. This mash is suggested for one hundred chicks: One raw egg, three small handfuls of rolled oats and three small handfuls of bran. Thoroughly mix by rubbing and give four feeds three hours apart. A dash of fine charcoal and bone meal helps.

Fourth to fourteenth day—Keep chicks hungry and active. Give two feedings of commercial chick feed, two feedings of the egg, oat and bran mixture, and one feeding of green food, sprouted oats, lettuce, etc. Supply hourly skim-milk for at least two weeks.

After second week—Simplify and cheapen the ration. Substitute the following mash: Bran, middlings, cornmeal, ground oats, equal parts by weight, and ten per cent. meat scrap. Increase the size of grain feed as the chicks grow older.

These points also should be kept in mind:

A dry mash of bran, ground oats and meat scrap will prevent toe picking and other cannibalism.

Do not overfeed, prevent crowding, provide plenty of fresh water and keep them exercising.

Corn Smut.

The smut of corn is well known to farmers. The smut masses which usually appear as swollen outgrowths may be found on the ears, stem or leaves. These outgrowths are sometimes quite large and make the smut very conspicuous. They are at first covered by a thin membrane, which soon breaks away and exposes the black mass of spores. The mass soon becomes powdery and the myriads of

spores which each mass contains are readily blown about by the wind. It is these spores that spread the disease during the growing season and carry the smut over the winter to the next crop.

In many of the smuts, as the smut of oats and the stinking smut or bunt of wheat, the spores get on the seed and when the seed is planted begin growing with it and attack the young seedling. Treatment with a solution of formaldehyde is effective in killing the spores on the seed and preventing infection of the young plants. In the cases of the loose smut of wheat and the loose smut of barley the spores are blown about at blossoming time and grow into the very young seed. The hot water treatment of the seed is used to kill the smut inside the seed. In the case of corn smut seed treatment of any kind has been found to be of no use, as the smut spores live over in the soil or in manure rather than in or on the seed. So the only way to control the corn smut is to prevent the smut spores getting into the soil or the manure. Not only do the spores live in the manure pile for some time, but they actually increase rapidly in number if the conditions are favorable.

Corn smut is found in all parts of Canada where corn is grown, but is more common in Eastern Canada. Generally it is not very prevalent and the losses are not great. Where it is common, measures should be taken to prevent its spread. The smut masses should be cut out during the growing season. They should be removed before they have broken open and spread their spores. They should not be left lying where they may reach manure or refuse and be carried back to the soil but they should be gathered and burned. Rotation of crops is also valuable in preventing corn smut. The smut does not live long in the soil and will not attack any other crop, so time should be given for the smut to die out in the soil before another crop of corn is planted. Seed treatment has not been found to be of any use in corn smut.

A manufacturer of perfumes in one year used the following flowers: 2,400 tons of roses, 1,750 tons of orange blossoms, 134 tons of violets, 280 tons of jasmine, 70 tons of tuberose, 15 tons of jonquils. These quantities seem enormous until you stop to realize that to make one pound of attar of roses it requires eleven tons of roses—about three million blossoms!

THE SUNDAY SCHOOL

THE SUNDAY SCHOOL LESSON JULY 11TH

Jonathan Befriends David, I Sam. 20. Golden Text, Prov. 17: 17.

1-11. From Naath in Ramah. This is evidently the statement of the editor or compiler of the book, who put the various narratives together in their present form, and who seeks here to make a connection between chapter 19: 18-24 and chapter 20. The difficulty, however, remains that in v. 5 David speaks as though he were expected as a guest at the king's table at the new moon feast. A possible explanation is that, after the experience of Saul's messengers and of Saul himself with the prophets (19: 20-24), there may have been a partial reconciliation, and that may also account for the conversation with Jonathan here in vs. 1-2. If so we can understand how Jonathan believes that all is well and refuses to doubt his father's sincerity, while David is still afraid. At any rate David is convinced that his life is in danger. His friends decide that Jonathan shall observe what the king says at the new moon feast, and that, in the meantime, David shall remain in hiding.

12-22. Jonathan Made a Covenant. Jonathan's words are full of deep feeling, and display the qualities of a sensitive, noble, and unselfish mind. He foresees the fall of his father's house and the rise of the house of David, and pleads only that his own life and his household may be spared when the day of David's succession to the throne shall come.

24-31. When the New Moon Was Come. One or two days of the new moon were regarded by the Hebrews as holy days, like the Sabbath, days of rest and worship. The feast was part of the celebration, and it was expected that all the guests would be in their places. Saul noticed the absence of David, and on the second day of the

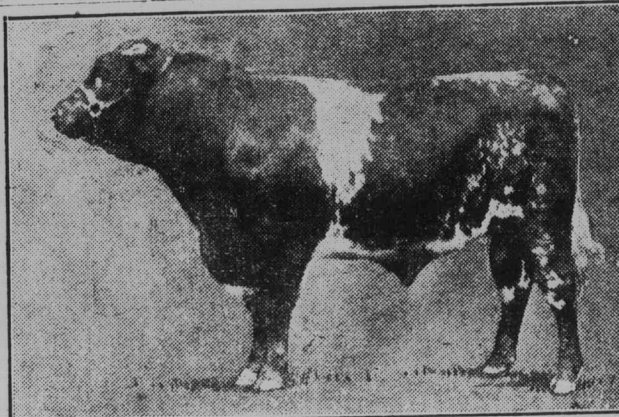
feast inquired of Jonathan why he was not there, and then charged his son angrily with having chosen David to his own shame and hurt. "For," he said, "as long as the son of Jesse liveth upon the ground, thou shalt not be established, nor thy kingdom."

32-42. Jonathan Answered Saul. His loyalty to his friend nearly cost him his life. He rose from the table in fierce anger, and went to warn David. Not for the possible loss of the kingdom, but for his friend, he was grieved, because his father had done him shame in charging him with conspiring against him to obtain the throne. That Jonathan knew David had not done and would not do.

At the Time Appointed. See vs. 18-22. It was somewhere outside the city that David was hiding. The stratagem which the friends had devised was effective. No onlooker would know that any communication had passed between them.

David Arose. This was no part of the original plan. If it had been, the shooting of the arrows would not have been necessary. At the risk of discovery the friends have a meeting. They know that their parting may be for a long time, perhaps forever, and so they feel they cannot part without seeing and speaking to each other again. The correct rendering of v. 41 is as follows: "David arose from beside the mound." The mound appears to have been David's hiding place.

Bowed Himself Three Times. Close friends as they were they observed the forms of greeting and of courtesy of which the Orientals are so fond. David recognizes also the great thing which his friend has done for him, and shows him both affection and reverence. David's self-control abandoned him in the parting scene, but Jonathan is the more calm and strong of the two. He reminds David of their covenant bond and oath (vs. 13-17), and pronounces in farewell, "The Lord shall be between me and thee, and between my seed and thy seed for ever."



Highest Priced Bull Ever Sold in England—Bought by Canadian. Clipper bull "Millhills Comet," sold at Millhills sale in Scotland for \$34,000. He was bought by J. J. Elliott, of Guelph, Ont.

The Welfare of the Home

Fatherhood, a Profession

We hear a great deal of the sanctity of motherhood and of the sacred responsibilities of the mother; but who talks about the nobility of fatherhood and the wonderful privilege of being a father? One would almost suppose that children had but one parent, or that, beyond the obligation of support, a father owed nothing to his children.

As a matter of fact, just what does he owe them?

In the first place, he owes them the best possible inheritance of health and natural strength. If the fathers of the present generation had been taught, as schoolboys, that they owed their children a heritage of physical health, the present generation of children would be a far healthier, happier lot of youngsters.

And having given his children a healthy heritage, the father should share with the mother the oversight of their children's well-being. I know—as everyone else does—hosts of fathers who not only fail to take any responsibility about the children's habits, but who actually, though unconsciously, work against the mother by giving surreptitious candy, by keeping the children up late to play with them and thus make her work with them more difficult. The result is that Father is very popular, while Mother is considered "awfully fussy."

On the mental side, a child, as he grows older, looks more and more to his father. Wise is the father who takes an active interest in current events or allies himself on the side of local civic improvement, for through his example his children naturally acquire a love of good citizenship.

And on the moral and religious side, how often is Father a mere figure-head in his own family? Usually it is Mother who represents the moral law, or, if Father does take a hand, it is merely as the executor of her decreed punishment. "Wait till your

Father comes home!" is a phrase filled with terror for the small rebel.

Too often church attendance is left entirely to the women. The children see Mother start off alone for church, while Father remains at home to read his paper. The notion that church is a woman's affair is formed so naturally that, later in life, it seems an instinct.

How much children miss, how much fathers miss, by this one-sided parenthood! Happy the boy who looks up to his father as an ideal of bodily vigor, wisdom and goodness. And this does not mean that Father must stand on a pedestal. Far from it! Anyone who has read the charming letters of Theodore Roosevelt to his children sees, as in a mirror, the picture of a father utterly devoted to his children, and utterly adored in turn. Whether he is leaping from haymow to haymow in a wild game of tag, or reading aloud with his children gathered around him, he is always their chosen companion, their best friend, their greatest hero. And there are many devoted fathers! Francis E. Leupp gives us a charming picture of one of his little boys, "A Day with Father."

Reversing a well-known quotation, we may say, "Happy is the father who knows his own child!" Happy because there is no more delightful study than that of the development of a child, as he progresses from infancy, through childhood to youth. Happy because of the inspiration that comes from the companionship of children. Happiest of all because, in the trying times of their youth and early maturity, he will be able to understand his children. He can guide and counsel them, instead of standing helplessly by—an outsider. If only Canadian fathers would know their children, they would find them more interesting than any business in the world, and as for the children, who can measure their gain?

The Farm Beautiful.

The beauty of the farm in large part depends on what is in the heart of the man and woman who make it their home. Beauty of thought, beauty of planning and beauty of doing cannot but make the farm home beautiful. For beauty comes from the heart where the issues of life are born. The character of the occupants may be learned from the premises quite as accurately as from association or from the printed page, and if that life be charming or sturdy these qualities will be everywhere evident.

When the thinking is right, there will be well-kept buildings, not so much because of the money invested in them, as on account of the little touches here and there that keep things looking well. A fresh coat of paint, which the farmer can put on himself in these days when we can buy fine paints all ready to spread, a weekly trimming of the yard about the house, a minute or two spent in training a few vines up the side of the porch, these are helps to the farm beautiful.

Then, too, the wife in the house may do many things that will tend in the same direction. The curtains and the shades at the windows tell their story of the thought back of them. A few pretty plants in the yard, with a flower or two in a jar on the porch; walks clean and neat, window glass free from dust, they all speak well for the beauty of heart of the one who is behind the pleasant service.

But, best of all, beauty of heart shines out and makes the home beautiful in the kindly living of those who love the farm best of all places in the world. Love counts for more than paint or any work of the hand; for love shows where the heart is, and love always makes the thing it touches radiant with beauty.

Now Is the Time To

Sell old fowls and give the youngsters room, and sell all surplus early chicks for broilers.

Kill every weed—in the garden and in the mind.

Run the grindstone by gas or electricity. Quit using elbow-grease.

Stay on the farm. Put running water and a bathroom in every farm home.

Have pure-bred sires for every farm.

Plan for a week's vacation when the work slackens up.

Give that son or daughter a plot of ground, some hens, a calf, a pig or a sheep for his or her very own.

A cool drink of water is quite as refreshing to a horse as to his master during the hot weather. Make some provisions whereby the team can be given a bucket of water in the middle of the forenoon and afternoon.

MANITOBA LAND

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Sample:—\$43 an acre, highly improved section, 400 acres cultivated. Good buildings and water, 1½ miles from market and school. This price includes 10 horses and a full line of implements.

R. A. McLOUGHRAN, C03 McIntyre Bldg., Winnipeg, Man.



Cord or Fabric.

"A well shod horse travels surest and farthest"

THE car equipped with Partridge Tires runs almost free from the delays and inconveniences caused by tire troubles. Partridge Tires have so unquestionably proved their dependability and economy that they are to-day recognized as "the most service for your money" tires.

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