Soils and Crops

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Keep Water for Stock at Proper Temperature.

The practice of heating or warming the drinking water for live stock during the winter has been followed pretty generally by most live stock farmers, using anything from an old kettle to a modern tank heater. I remember seeing at one farm on a moderate winter day, a large tank of water brought to such a temperature that I know it was actually insipid to the cattle which stood about it. I do not think it is essential to raise the temperature of water in winter very much above that of the water as it comes from the well. Water fresh from the well, even at winter temperature is stimulating to a well-fed animal and it seems to enjoy it.

Where water stands in a large tank and ice freezes on it, it gets too cold for the best results. Live stock does not seem to relish greatly in severe weather drinking through a hole in the ice. The desire for water in the winter is just as great or greater than during the summer months since more dry feed is given and more water must be taken into the body to assimilate the dry foodstuffs.

If stock must drink very cold water during the winter it will be advisable to have it accessible all the time to them. In this way they will drink small quantities at frequent intervals and consume sufficient water without chilling themselves. If they have access to the water only once or twice a day they will consume large quantities of ice water at a time which tends toward chilling the body unduly and to digestive disorders sometimes. Hogs drink more frequently than cattle, though sometimes they will do without rather than wade snow or slush to get it.

There is, I believe, a limit to stop at in heating the water. Removing the chill is sufficient. We have a submarine type heater in our sixteen-hundred-gallon tank which is used whenever ice begins to freeze on top. As we use large quantities of water, pumping in from four to six hundred gallons a day, the water does not freeze much except in cold weather. A few hours of fire in the heater each day removes the chill, cobs, coal or wood being used for the purpose. The temperature of the water can be raised quicker if there is a covering of ice on top, as the ice prevents the heat from escaping. As we have from forty to seventy head of cattle all the time, I feel safe in saying that the heater will return its cost every winter in the convenience and benefits we derive from it.

While we have a hydro-pneumatic water system and can give the cattle a drink at any time by simply opening a water tap, it would be pretty much of a job to keep this up in severe weather, but it answers the purpose all right during summer, spring and fall.

Fighting Disease Before It Comes.

Good health can be bred into a flock, and proper sanitary measures will maintain it. Recently we exposed our flock, or part of it, to chicken-pox when we bought some cockerels and turned them into the breeding house, without first keeping them in quarantine for a length of time sufficient to ascertain whether or not they would develop sickness. The fact that but three hens out of sixty showed any signs of the disease, argues well for the disease-resisting power of our fowls.

One of these cockerels died and while the others have recovered they will not be used as breeders. The fact that chickens once having this disease are afterwards immune has been firmly established, but we hold, in common with others, that the offspring of diseased birds will usually be weaker and more susceptible to disease than will the offspring of birds of stronger vitality.

For that reason we will not use as a breeder a female or a male that has been ill or that shows weak vitality. No breeder that has ever been sick is used in the breeding pen, for the very fact that it was sick shows that its disease-resisting power is less than that of other birds. Nature if left to her own devices usually weeds out such birds.

Our flock ranges from 100 to 150 birds, probably about the average for an ordinary farm, and we know as little about doctoring as do our neighbors. But we practice prevention to a greater extent than they practice it, and have a more rigid rule. It pays to do this, as shown by the fact that when our neighbor on one side lost heavily through roup, and another found the ravages of chicken-pox cutting down his profits, we were not bothered with disease. A slight cold has cropped out occasionally, but the removal of the cause and prompt preventive measures have kept it from growing dangerous or running into something more serious.

Aside from breeding from only highly vigorous birds and ones that have always enjoyed good health, we attribute our good luck to cleanliness in the yards, houses and feeds, to soil that has never been allowed to become contaminated and to feeding Epsom salts at the rate of a teaspoonful per bird at least once every month during the winter. We believe that the fowl which is clean inside as well as outside has greater resisting power than one which is the opposite.

We also feed green food, either sprouted oats, mangels or the left-over vegetables from the garden, and believe this to be necessary to keep the hen toned up to a proper pitch.

Proper housing is, of course, essential to good health. A damp house is a constant source of trouble.

Our houses are given a thorough cleaning twice each year—once in early spring and again in the fall, about the time the young stock is placed in them. The walls, floors and fixtures are scrubbed, the house is thoroughly fumigated. The interior is kept whitewashed, as this gives a cheerful appearance to the inside of the house, makes it lighter and more sanitary during the dark winter days. The range is kept clean, no refuse is allowed to accumulate, and whenever we believe the soil is in danger of becoming contaminated it is plowed up and planted to some crop. The hens are fenced out while the crop is getting started. After the crop is off the soil is put in grass and allowed to run for a few years. Under this plan we have never been troubled with soil contamination.

The Dairy

The exact cause of warts is unknown. Excessive nutrition of the skin is present, and bruising may have something to do with the condition. Warts often grow where sores have healed. Warts that have narrow necks may be snipped off with scissors, a few at a time. If this is done, apply a little pine tar the following day. Excessive bleeding may be stopped by bathing with very hot water or very cold water, then painting the wound with tincture of iodine. Masses of small warts may be removed in the course of time, by immersing the affected teats for ten minutes or more, twice daily, in water containing all the bicarbonate of soda it will dissolve when hot, or in a ten per cent. solution of washing soda. The strength of the last-mentioned solution should be decreased one-half after the first day of use. A thick paste composed of table salt, sulphur and cold-compressed castor oil is also effective, and many people use rastor oil alone. The latter, however, is slow in effect compared with the other mixture.

The eating of wood, bones, bark, rags, crockery and other "foreign bodies" by cattle may be regarded as an indication of the lack of some needful ingredient of a complete ration. It is also a common habit of pregnant cows, and in that case subsides after calving. Treat by allowing the animals all the salt they care to take. Add wheat bran freely to the ration, along with other meals, including cottonseed meal and flaxseed meal. If possible supply clover or alfalfa hay. If the habit then persists give each affected animal from one-half to one ounce of bicarbonate of soda twice daily in feed or drinking water. If that does not suffice have a veterinarian administer two or three drams of iodin crystals in a gelatin capsule. Allowing horses to eat the bark of poplar stems and boughs often causes them to stop gnawing wood.

Stormy Weather Jobs.

On our farm we have for years kept a list of jobs posted up where all the hired men could see. We kept our eyes open to note the things that needed attention. Out would come the ever-present memorandum and the thing jotted down under "Rainy Day Jobs." During a long spell of fair weather the list sometimes got pretty long, and occasionally when we would have many rainy days in succession many items would get checked off and it would get mighty short, but I think most of the good men who help with the work will testify that it never quite ran out. The men soon learned that there were very apt to be twenty-six full working days in the month regardless of weather. A page taken at random from one of these memorandums reads as follows:

Clean tank in barn.
Grease harness.
Clear upper barn floor and arrange tools.
Pull fence posts and plow fence row.
Haul tile.
Repair float tank.
Mount fork handles.
Fix box stall.
Put new floor in hog cot.
Halter and tie calves.
Ring young bulls.

This little pocket memorandum has been of great service many times. It has helped to the accomplishment of many a task that otherwise would have been forgotten and postponed until mischief resulted.

The New Year.

A small ship launched upon an unknown sea,
A small seed planted from an unknown tree;
Such is this strange New Year to you.
Whither the vessel and me goeth,
And how the seed up groweth
God only knoweth.
But sail the ship and plant the seed,
That's done in faith is done indeed.

Farming in Northern Ontario and Quebec.

Valuable facts regarding the prospects for agriculture in Northern Ontario and Quebec are to be gathered from the report of the Dominion Experimental Stations at Kapuskasing, Ont., and La Ferme, Que., recently published. Experiments are being conducted in live stock feeding, field husbandry, dairying and other lines. At Kapuskasing, the herds consist in beef cattle of fifteen grade Shorthorn cows, seven yearlings, ten young calves; and of dairy cattle ten grade Ayrshire and three grade Holstein cows, seven two-year-old Ayrshire heifers,, five yearling calves, and a herd sire. A feeding experiment was made with ten calves in two groups of five. Group No. 1 was fed in the stable from June 1 to November 1 on oats, bran and oilmeal cake, and increased in weight from 1,462 lb. to 3,055 lbs. Group No. 2 fed on pasture for the same period increased in weight from 1,472 lbs. to 3,188 lbs., not only making the greatest gain but also the cheapest.

Dairying, the report points out, is one of the most profitable branches of the live stock industry in Northern Ontario. Of 106,874 cattle in that section of country, 39,527 are milch cows. The profits on one Ayrshire for 346 days is given as $287.53 and of a Holstein for 321 days as $239.15. Of nine pure-bred Yorkshire sows, eight farrowed with an average of 13.3 to a litter. In field husbandry experiments are progressing in crop rotation, land drainage, and fertilizing. A table is given of the results last year in the last-mentioned. Particulars are also contained in the report of the successful cultivation of vegetables, cereals, and forage crops.

At La Ferme, in the Abitibi district, the season of 1920-21 is reported to have been an excellent one. Twelve head of grade Ayrshires and Holsteins and a pure-bred Ayrshire bull are kept. Experiments were made in sunflower growing for ensilage and seem to show that the best method of planting is in rows with 36 or 42 inches between and the plants 6 or 12 inches apart. The season for vegetables was only fairly good, early frosts injuring the tomatoes and beans.

Tobacco Growing.

Tobacco has been grown for many years in Quebec, and in the last quarter of a century has become an important crop in south-western Ontario, having been first introduced by the French-Canadians settled there. Mr. F. C. Charland, Chief of Tobacco Division of the Dominion Experimental Farms, in a paper recently published, tells of the things that are being done to develop and encourage both in quantity and quality the growth of the universally-used article. He narrates that the first results of the efforts of his Division were the creation of the cigar-tobacco industry in the Province of Quebec and the establishment of sorting and fermenting warehouses. In Ontario, tobacco growers have specialized for a number of years in the cultivation of the White Burley variety, used chiefly in the manufacture of pipe and plug tobacco. The seed from this variety from selections at the Harrow Experimental Station, yield crops superior in weight and of improved quality compared with those coming from imported seed. In order to extend a knowledge of improved methods in tobacco growing, a number of experimental plots have been conducted in co-operation with the growers themselves. Fall plowing of the land to be used for the crop has proved of advantage, as it increases soil moisture, while tending to destroy insects destructive to the crop. A study of the various types of seed-bed has shown that a semi-hot-bed under glass is the only one that gives absolutely dependable results. Tests of varieties have proved that White Burley and Comstock are best suited to this country, and are in no way inferior in product to the same varieties imported from the United States. Canadian grown seed is recommended.

The Welfare of the Home

The Value of Responsibility—By Barbara B. Hunter

It seems a strange fact that one's neighbor's children are always wretchedly brought up. We could suggest innumerable means and methods of improving upon the "small fry" across the way, while even at the moment our own youngsters run shamelessly wild, and are subject to much the same criticism from that neighbor herself.

But it is not in that spirit of criticism I make a suggestion, rather in a hope that it may be of help to some mother who has a child or two, with the attending problems.

To foster a feeling of responsibility in a child is one of the most important steps in starting him along the right road. It will work wonders with him if he has his own little tasks, duties about the house, for which he alone is responsible.

The boy who keeps the grass trimmed along the walks after the lawn has been mowed, who empties the ashes from the kitchen range each day, sweeps the snow from the walks in winter, picks up his clothes each morning and leaves his bedroom in order, that boy is beginning well. When he knows that his family depend upon him for the mail, the responsibility thus imposed will strengthen the will to do. It may be far easier for a mother to do a thing herself than to succeed in getting the boy to do it, but in the end the effort will be found well worth the while and one which a thoughtful mother should feel it a duty to make.

The little girl who shares the task of dishwashing with her mother, and whose duty it is to dust the living-room before going to school in the morning, that little girl is developing not only her abilities as a young housekeeper, but those characteristics of unselfishness and service that are most essential in us all.

The question arises as to when we can begin to impose these little duties, for surely a three-year-old can not be expected to shovel snow. No indeed, but a child may be trained at a surprisingly early age to perform duties that lead, as he grows older, to larger things.

A two-year-old child may be taught to put away his toys, take care of his coat and cap, and run little errands about the house for his mother. He can not be trained too soon to wait upon himself. Don't make the common mistake of being "a slave to your children." Teach them self reliance, give them some responsibility. You will be more than rewarded for your effort when they attain young manhood and womanhood.

Converting a Frame House Into a Cement House.

A frame house that needs sheeting or weather boards can be made a handsome house by using the old weather boards with a few bunches of lath so as to leave an air chamber of two inches or more for plaster. Nail laths on each side of the studdings, saw the old boards that come off the house so as to fit in between studdings and nail them to laths. Then drive nails about four or five inches apart on both sides of the studdings and on face of studdings drive the nails in just so the outer boards are as even as possible with the doors, window-frames and corner boards. If the studdings are hard wood, use small nails, if soft wood, use larger nails.

When putting boards on, use tenpenny nails driven through small strips of laths at about every other studding and eight-penny nails at the frames or corner boards. When the boards are on, as far as a few batches of concrete will go, get a coal bucket to pour the concrete between the studdings. Then get a hammer and tap boards so as to get the cement together.

After several days remove all the boards except the top one, and go on up. When removing boards, knock strips off. Pull the nails from boards as you will have to use small strips again after the cement is all set. Use cement dope whitewash. This will give a concrete wall of from one and one-half inches to two inches thick and you will have something cheaper and better than lumber. With all the nails driven in the studdings, it would be hard for the concrete to get away from the studdings, as all would be solid concrete. I have built my house this way and am well pleased with the improvement.—E. L.

Found Test Barn Practical.

Recently I visited a large dairy where some wonderful records were being made. I was pleased to find the test barn well filled with a splendid lot of cows and heifers. In questioning the owner concerning the economy of such a barn, he informed me that it was one of the most profitable buildings he had ever put up.

The barn was simple in structure, but built with the idea of making it warm and easy to ventilate. Steel pens on both sides in two long rows furnished room for some twenty-four head. Each pen was supplied with a water bowl, manger and cement floor, with drainage to one end. A feed carrier through the centre furnished an easy means of bringing in silage and grain, while a litter carrier at each side made it easy and convenient to remove the manure.

To construct such a barn one must know definitely what cow comfort means. Cows do not require fancy and expensive buildings. They are very practical in their tastes. They do want, however, freedom in their stall and a pen permitting them to move about at will. They like their food clean and at regular periods. They like a supply of fresh clean water always at hand. They prefer a light, well ventilated stable to one that is dark and poorly ventilated. These cow requirements demand modern equipment, which is not only to the cows' liking but also saves much hard work and time on the part of the caretaker.

Begin 1922 With a Kindly Deed.

Amidst the stress and storms of life,
When you feel worn and weary
Just help a brother in the strife
And make his path more cheery.

For blessed is the one who lends
A hand to help a brother,
And God will bless you, though your friends
May leave you, for another.

Twice blessed is the kindly deed—
Flowing onward like a river;
Blessing those who, feel its need,
The receiver and the giver.

Anna Lou's "Res'lushuns"

It was New Year's morning, and Anna Lou was dressing Dolly Dimples beside the warm grate-fire.

"This is the day we start all over to be good," the little girl was saying. "We call it making res-lushuns don't you know. Have you made any, dolly dear?"

Anna Lou helped her doll to nod its head. "I thought you had, you dear old dolly. You've res'luted not to hide from me again. Now, Dolly Dimples, isn't that quite true?" Dolly nodded once again, so Anna Lou had surely guessed aright.

"Bow-wow! Bow-wow!" barked Rover, as he snuggled close to Anna Lou. "Oh, Dolly Dimples, Rover's come to tell us what his res-lushuns are." Then doggie's little mistress laughed and said, "Well, Rover, have you res'luted not to lick the roses off Dolly's cheeks this year?"

"Bow-wow! Bow-wow!" he answered, which, of course, meant "Yes" to Anna Lou.

"I guess you're glad of that now, Dolly Dimples, aren't you? Of course you are, I know," chuckled Anna Lou.

"Meow! Meow!" cried kitty, as she came up near the fire.

"Oh, tabby dear," laughed the little girl, "have you res'luted never again to tangle Dolly's hair?"

"Purr! Purr!" assented kitty.

"Do you hear that, dolly mine?" asked Anna Lou, as she fastened the last button "Isn't this going to be a wonderful year, though?" And Dolly Dimple clapped her hands with joy.

"And now, my little family," continued Anna Lou, "since you have told me all your res'lushuns, I must tell you mine. I'm always going to tidy up my things, and never cry when I get hurt, and never take the biggest piece of anything, and—and—well, you see, I've res'luted so many things that I'm 'fraid I can't remember half of them; but, just the same, let's all try very hard to keep them every one."

January 1st.

I resolve:
To be better than my last year's best.
To best none, that being the better way.
To give of my best, without an apology that it's no better.
To try to avoid the necessity of try, try, try again.
To better the good in me, and then improve on that.
To do my level best to do better.
To make the best of things until things are better.
To do the right and let the wrong be left.
To do a little good towards bettering bad things.
To be good up to my capacity, and not my inclination.
To keep these resolutions—in use.

Wintering Idle Horses.

Peculiar as it may seem, the chief danger in wintering idle horses is in over-feeding them. If one has hay, corn stover and straw of sufficiently good quality he can put the idle horses through the winter in reasonably good shape without grain feeds. Where the roughage is lacking n quality then enough grain should be added to supply the deficiency ,not more than one-half a work ration, and preferably less.

Give the animals exercise. The horse is an active creature. Rest is his great enemy. Turn in a yard during pleasant days. Stables should be cool and well ventilated but the horses should always be protected from draft and extreme weather.

"I see not a step before me
As I tread on another year;
But the path is still in God's keeping
The future His mercy shall clear,
And what looks dark in the distance
May brighten as I draw near."

Better be silent than speak with ill will.

Poultry

For colds place a small amount of kerosene on top of the drinking water. Feed each hen a small teaspoonful of Epsom salts mixed with a wet mash in the morning.

Fowls fatten in a short time when fed on ground rice, well scalded and mixed with milk. Add some coarse sugar. This should be fed in the daytime, but only a little at a time. The mixture should be very thick.

Green feed must never be given when it is frozen. Of sprouted oats, give one square inch per hen daily. In no case will the greatest care in feeding offset dark, damp, poorly-ventilated quarters, excessive exposure, lack of exercise or the use of scrub stock.

The dry mash generally used is composed of equal parts by weight of wheat, bran, wheat middlings, ground oats, cornmeal and meat scrap. It is fed in hoppers, and kept continually before the birds. Careful feeders watch their birds and regulate the quantity of scratch feed so as to keep the birds in such a condition that they will be eating mash eagerly with no accumulation of scratch grains in the litter.

Frozen combs and wattles may be prevented by anointing with a salve made of equal parts of vaseline and kerosene, well mixed. Apply this at night during very cold weather. Put it on thick in cases where the combs and wattles are already frozen. This salve is also excellent for colds in the head or rattling in the throat.

Winter care of fowls must in so far as possible, duplicate the natural conditions of the regular production season in spring and summer. Thus some form of green, succulent food is very useful to keep the birds in a healthy condition and their systems in tone. If no succulent food is available, Epsom salts (fed at the rate of one pound for every 100 birds) in the drinking water about twice a month, makes a satisfactory substitute.

Balanced rations consist of a scratch mixture and a mash. The scratch mixture, usually composed of three or more grains, keeps up the body weight of the bird and supplies heat. The mash, consisting of ground grains or their by-products, being high in digestibility and rich in protein, is more directly available for egg production. Heavy mash consumption goes with high production, and the quantities of scratch grains fed are designed to be sufficiently low to encourage heavy mash consumption.

Time's Up!

The close of a year makes us think of the passing of time. The following maxims, old and new, should make us think of the value of time:

Any time means no time most times.

A man who does nothing never has time to do anything.

He who has most time has none to lose.

Nothing is more precious than time, and nothing less valued.

No reward can recover lost time.

Be always in time; too late is a crime.

The time that bears no fruit deserves no name.

Life is but time; waste the latter and you reduce the former.

You may have time again, but never the time.

Take time when time is, for time will away.

Time present is the only time you can be sure of.

None can be provident of time who is not prudent in the choice of his company.

A good meat-chopper speeds the sausage making.

Make a smoke-house or buy one. There are good ones on the market.

I Am---

I am the open door to a new chance in life, a chance to try again, an opportunity to bring victory out of defeat.

I am the beginner of new things. I blot out the past and open up a new world for king and peasant alike—a world filled with new hope, new inspiration, new promise for the future.

I present you with a new book without blot or blur or blemish in which will appear the record of your chance and what you have done with it.

I have nothing to do with what you write. I give you the materials to make a good record. No page in your new book was ever turned before. No word has yet been written in it. Every word you write therein will speak for or against you.

I am very, very young, but I am the heir of all the ages, richer than Solomon or any potentate or millionaire that ever lived.

I bring great possibilities to all who accept my gifts in the right spirit. But if you treat me lightly or indifferently, if you make no effort to utilize the treasures I bring, you will never be able to make good your loss.

I am no respector of persons. I show no favoritism—but shower my gifts on old and young, on millionaire and beggar alike.

Resolve that you will no longer squander my gifts, but will put them out to interest, and you may yet be what you long to be.

I mark the succeeding steps of your life and proclaim to all who know you whether you are going up or down in the human scale.

Write to-day on the first page of your new book your ambitions, your desires, your heart longings, your dreams of the future, and then register your vow to make your dreams come true.

I Am The New Year. —O. S. Marden