Soils and Crops

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AUTUMN CARE OF STOCK.

The care of live stock during the stormy weather of autumn, and when pastures are bare or dry, is an important factor in successful live stock husbandry. There are many farmers who feed well during the winter and spring, but allow their stock to receive a severe setback in the autumn; due largely to thoughtlessness for the comfort and food supply of the animals. The cause of the setback is the deterioration in the quality of the pastures as the summer advances, and the greater need of shelter in autumn than during the summer.

On the rich, succulent grass of June which acts as a tonic as well as a food, the cattle quickly make gains, and the changed conditions come so gradually as summer passes, that one is apt to be caught unawares, particularly when the pasture gets ahead of the stock early in the season and appears so much better than it really is. The dry, woody stalks of the grasses and clovers require the addition of succulent food to keep the cattle in condition to make profits for their owners. The most valuable of these succulent fodders are mixed grain (when cut in the milk stage), corn and sunflowers, when fed as soiling crops. Roots should be added in the late autumn when the above-mentioned fodders near maturity. It is very important in feeding, that all changes be made gradually, so that the digestive tract of the animal may not be disturbed unduly. Late autumn feeding should thus merge gradually into the early winter ration.

The shelter and protection of the animals from storms and cold are quite as important as the feeding during this period of the year. The clump of trees or windbreak that was of great value to the cattle during the hot days of summer, is of little value during the chill, driving rain or cold storms of autumn. It requires more mood than the animal can eat to supply sufficient body heat during a cold, wet storm, and the animal has to fall back on its reserve supply of fat to maintain its body heat. This results in a more or less serious loss of weight. Cattle should not be allowed to lie on water-soaked ground, or when it is covered with hoar frost. They should always be protected from rain storms and heavy winds that might chill them from about September 1 until they are permanently stabled. Frequently cattle that are in good condition at the close of summer go into winter quarters in poor shape, with their vitality greatly impaired due to lack of ordinary care on the part of their owners.

Just as soon as the flies disappear, the horned animals that are going to be fed for beef should be dehorned. This adds much to their comfort; they feed better and can be marketed with less loss from bruises. The teeth of young animals should be examined, and loose ones extracted. The teeth of old cows should also be looked over, to determine how their feed can best be prepared for them.

All the stock should be carefully examined for lice, ringworm, or other parasites and diseases. They should be treated for all these pests and diseases, which multiply and injure the animals much more quickly in confinement than on range.

THINGS I'VE LEARNED ABOUT SILOS.

Experience has taught me a lot about silos. Six years ago I was ready for my first one. Four neighbors bought together and saved about $20 on each tank because they could be shipped together and the agent got them all on one trip. Orders can be sent direct to the manufacturer where there is no agent, and part or all of the commission on the sales can be kept by the farmers.

It doesn't matter what kind of a silo you get. There is a competitor who wants to sell. Let 'em all bid; it may cut the price.

I used to think that the base for a wooden silo needed to be built on the rock. I've made three bases, each of the latter two lighter than the one before it. A ten-foot wooden silo weighs from 3,000 to 5,000 pounds. A wagonload of corn weighs that.

I don't use any floor. Put in a foot of straw and let the silo filler get busy. I don't have a foot of juicy water in the bottom. The soil absorbs the juice.

I have learned to build the foundation wall in circular farm. It saves material; it looks better. Half-inch or thinner house siding, wet and slowly bent to shape, makes the best form material. Use sod for the inside form. Use plenty of stones in the cement. It is cheaper and the mixture holds as well.

Use a sand-and-cement top coat. Make it smooth. Slope the whole wall to the outside. Staves set out at the bottom if it is level.

Setting up. Hire a man who knows to help you. Building a scaffold is cheaper than broken legs. Use the plumb or level often. Crooked silos are a nuisance.

Put a roof on—for looks and convenience only. I've one silo with and one without. Silage is better without a roof, I believe. Extend the roof three or four feet above the top of the silo. This gives you head and filling room. Fill in the space between the top of the staves and the roof with sheet or galvanized iron. When the silage settles you'll have full silo.

I used to keep three or four men inside filling. Now one man with a distributor pipe does as well. Men will increase capacity but won't improve the silage. Even distribution is the main point.

Fne cutting pays. Our cutter makes it a quarter of an inch. Finer cutting packs better and makes better silage.

Own your own cutter if possible. Two or three farmers can buy one cooperatively.

I've tried everything I've ever heard of for sealing silage until wanted for feeding—oats, straw, sawdust, tramping, roofing paper, newspapers—and it always spoils on top. Always wanted to try paraffin like women do for jell.

Keep the hoops tight or the silo painted or coated inside, depending on the kind. They all need some care.

Build a house at the bottom of the chute bigger than you think necessary. It won't be. Set two silos so one chute can be used. Cheaper. More convenient. Use windows in chute and house. —Earl Rogers.

Mineral Matter for Hogs.

An experiment in hog feeding has been carried on at the Experimental Farm at Agassiz, B.C., to determine the influence of feeding mineral matter to hogs. The mineral mixture consisted of ground bone meal, 8 pounds, ground charcoal 5 pounds, ground rock phosphate 5 pounds, and salt 3 pounds. This mixture was fed at the rate of 3 per cent. of the grain ration. The other foods consisted of a mixture of shorts, four parts, and one part each of corn meal, chopped oats, and chopped barley. The results showed that, in every instance where the mineral was fed, greater and cheaper gains were made. Some of the lots received boiled potatoes in addition to the other feeds. It is reported by Mr. W. H. Hicks, the superintendent who conducted the experiment, that the potatoes apparently had a good effect, especially on the health of the pigs, more particularly in relation to rheumatism, as no stiffness was present in any of the pens where potatoes were fed. Some of the pigs were fed regularly at meal time, while other pens had access to self-feeders. The pigs that had free access to the self-feeders and received no mineral were the greatest sufferers from rheumatism.

The Septic Tank.

It consists of a large concrete tank divided into two compartments by a vertical partition. The size for a single house is about 4'x8' and 3½' deep. This tank holds the sewage long enough for a certain kind of bacteria to destroy the solid matter. When the liquid accumulates to a certain amount a non-chemical affair called a siphon empties one of the chambers into a system of field tile, called the absorption bed, laid shallow under the ground. Any remaining sewage is destroyed in the soil by another kind of bacteria that live near the top of the ground. In this way these friendly bacteria are enabled to do a very valuable work for us. This is science applied to a useful purpose, so says Prof. R. R. Graham.

We supply bulletin and blue-print to any one wishing to build a septic tank. All necessary information is given in these, and by their helpful suggestions any handy man can build it. Cost for cement, siphon, fittings and tile amounts to about $52. The tank may be located close to the house and the tile laid under the lawn or garden.

The Farm Water Supply.

There are two main sources, namely, well and spring (both hard water) and rain water (soft). Any one thinking of installing a modern water system and plumbing in his home should make sure that his water supply is both plentiful and safely protected from all possible sources of contamination. Much more water will be used daily under modern than under old conditions of service—about 30 gallons per person per day. Ask the O. A. College to assist you in solving the following problems in this matter of water supply, so says Prof. R. R. Graham:

1. How to increase the well and spring supplies of water.
2. How to safeguard these supplies from surface contamination.
3. How to make more use of the rain water supply.
4. How to get that fine spring water running through your house and stables by installing the hydraulic ram near the spring.

Iris and madonna lilies can be planted in August. Hollyhock seed can be planted for next year's flowering. Ever try the double hollyhocks?

He who permits his hens to roost upon the wagon wheels in winter, need not be surprised if there are no eggs. Comfort is a factor in egg production.

Ursus Kermodei of Victoria, B.C., is the only bear of his kind in captivity. He was captured recently on Princess Royal Island, northern British Columbia, by Indians, and carried by them into civilization. He is pure white in color, but differs from the Polar bear.

THE CHILDREN'S HOUR

THREE GOOD GAMES.

To play "Through the Circle," provide two pieces of elastic a yard in length and sew the ends of each piece securely together. Form players in two lines; at a given word the race begins. Each leader places one of the elastic bands over the head and goes through it; as the leaders step out, the next player in each line grabs the circle and does likewise, and so on down the line, three times, starting at the signal each time. The best two out of three wins. In case of accident, such as catching the elastic on a button, or breaking, the manager calls "Time," and the other side must stop until repairs are made.

"Jump the Shot" may be played by from ten to sixty or more players. A bean-bag tide to a rope is needed. The players stand in a circle, with one in the centre holding the end of the rope. This player swings the rope around so describe a large circle on the floor or ground, with a sufficient length of rope to place the bag in line with the feet of those in the circle. Players jump to avoid being caught around the ankles by the rope. Any one caught in this way must retire from the circle. The player wins who longest retains his place; or the one caught may be required to chance places with the centre player and in turn swing the rope.

To play "Seat Relay," divide players in two equal groups. Each group gets chairs and arranges them in an even line, far enough apart to allow roo mto run around each line without interfering with the other. A bean-bag is given to each leader. At the starting signal he quickly passes it to his neighbor, who passes it on to his neighbor, and so on to the end of the line. As soon as the last player gets it, he jumps up and runs down to the other end of the line and sits down in the leader's chair, immediately passing the bean-bag toward the end of the line again. (To make room for him every player in the line has shifted one chair toward the end of the line). The game continues in this manner, the whole line being ready to shift as soon as the bag reaches the end player, until the leader gets back in his original place. This ends the game. Lines one and two play simultaneously. The first one through wins.

THE SHIPWRECK.

The three little Woodland boys, Jackie Rabbit, Willie Woodchuck and Johnnie Muskrat, were thinking hard how they might get to shore as they drifted, drifted toward the Big Sea on their funny little ship, the old fishing log.

Of course, Johnnie Muskrat could get back, for he could swim. But he was trying to think of some way to get his two little friends back with him.

"If we only had a paddle," said Willie.

"Yes, and if we had wings we might fly," said Johnnie.

"Perhaps the wind will change and a merry little breeze will blow us to shore," said Jackie.

But no paddle drifted by and they did not have wings and the merry little breeze they wished for did not come. So it was three frightened little boys that sailed along their log ship.

As they drifted along the shadows on the shore grew longer. Soon the sun went to bed behind a hill, and still they kept on drifting. Then a little star appeared way up in the sky. Little Jackie Rabbit spied it first.

"Star light, star bright,
The first star I have seen to-night,
I wish you may, I wish you might
Bring me the wish I have to-night," sang Jackie.

"I bet I can guess your wish," said Willie. You wish you were home for a nice warm supper."

"I guess he's not the only one who wishes it," said Johnnie Muskrat.

But the three little Woodland boys kept on drifting, for they could not think of any way to get to shore. As it grew dark, they were tired, frightened and sleepy. Finally the old moon peeped his head over the hill, and to keep from getting lonesome, they told stories about him.

When it was only an hour past bedtime, they just couldn't keep awake any longer and one after another went to sleep. It was then that something happened.

"Kerplunk, perchug, slash, splash."

The old log ship had hit a stump and off went the three little sleepy Woodland boys into the water.

Fencing the Poultry Yard.

The first rule for fencing poultry is not to fence it at all, if you can get as good results by fencing the garden and lawn. Fowls on range will remain in a more healthy condition and also gather considerable feed that would otherwise be wasted.

But if they insist upon visiting the neighbor's garden, or range too much upon a public road, it will be necessary to fence them. In that case, one must be sure to allow them enough room. For a flock of 100 layers, a square lot 100 feet on a side is as small as is considered safe. If double yarding is practiced, from one-half to one-fourth as much may be sufficient, but where land is not too expensive, single yarding will probably prove more satisfactory.

Poultry netting should be stretched on posts about twelve feet apart. For the heavier breeds, this fence may be about five feet high, but for Leghorns, it should be as high as seven or even eight feet.

It will be easier to keep chickens in a yard where shade, feed, and water are always available. But if the flying habit starts, it must be curbed at once. When one flies out of the pen, others are likely to follow. You will find that certain chickens are the worst offenders at flying out, and in certain cases, it may be necessary to resort to cropping of wings. Of course, chickens immediately begin to grow new feathers, and use nutrients that should be expended for growth on eggs. Crop only one wing on each fowl.

For fences six feet or more in height, a neater job can usually be had by using two strips of netting. If the smaller size mesh is used at the bottom, the fence will turn little chickens at the minimum expense.

Happy Prospect Indeed.

"You say they anticipate a very happy married life?"

"My dear, all their relatives are so angry with them because they got married they've vowed they'll never visit them."

EATING RIGHT TO FEEL RIGHT

BY JULIET LITA BANE.

Since time began we have entertained many superstitions regarding food. Little girls have eaten bread crusts to make their hair curl, while older girls have eaten carrots to make them beautiful; yet how few people stop and think seriously and sanely about the food which they take into their bodies and put before their families. Scientists tell us that we have entirely new bodies every few years, how are you building yours?

While the whole truth about food is not yet known, there are some things that we do know, and if acted upon would save us much anxiety and actual suffering. The day is fast approaching when we shall have doctors (we have a few of them now) who will treat through food and the alimentary tract in a highly specialized way, just as certain schools treat the muscles.

If we choose food wisely we have a right to expect it to build for us new tissues, repair old tissues, regulate body processes, correct certain weaknesses and protect us from disease. But we must choose intelligently if we are to get these results.

We can not do what we have done for so many years—think of what "Walter would like best," and "what Susan positively refuses to eat," what is easiest to prepare, and what we have in the house. These things must be taken into consideration to a certain extent, but we must also have some other guiding principles.

Heretofore, our chief principal seems to have been to put everything we could think of on the table and trust to providence that we were getting the right things to eat. All sorts of ills followed. Many of them just "worked off," we paid no attention to them and in time they ceased to trouble us. Others were so insistent that we finally had to consult a doctor.

How many of these troubles were caused by improper food, we shall never know. But it is safe to say that food has caused more ills than have ever been suspected by either patient or doctor. Your doctor can not possibly know what foods you have been eating and often attributes your difficulties to other causes, when food either directly or indirectly was responsible.

Foods have been sorted out in many ways. Three divisions prove quite satisfactory: Foods for maintenance, foods for corrective purposes, and foods for protective purposes. In the first class we put the fats, the starches and sugars, the tissue-building foods, water and the minerals.

If you weigh too much, or too little, if you are troubled with constipation, or diabetes, or many of the other disturbances caused from lack of proper food, you can correct these troubles by choosing food wisely. The starches and sugars build fatty tissues if they are not all burned for energy and heat. Avoid them in large amounts if you would cut down your weight. Bulky foods such as watery vegetables, fruits, and cereals made from the whole grain are all very valuable in curing constipation.

A farmer said recently: "There is something to this feeding business. My son can feed the dairy cows and feed them less than I do, and it costs less, too, and they will give more milk than when I feed them. I'll tell you there is something to this if you just study it out."

And there is. The farmer is profiting by the facts that have been learned about feeding stock. It is just as important that he and his family profit by the information now at hand regarding food for themselves, for it has been proved beyond a doubt that there is more ill health in country districts than there should be.

When we read such articles as "The National Menace of Rural Bad Health," which appeared in one of our magazines not long ago, and read similar reports in other periodicals, we should think twice before making the boast which we have made for so many years that the country was a very healhtful place in which to live. One of the favorite reasons given by investigators for this condition is the fact that we have not chosen wisely in selecting food for ourselves and for our children.

A new phase of the question of feeding is the problem of taking food for protection against disease. Dr. E. V. McCollum, of Johns Hopkins University, has given us some interesting facts, but only a beginning has been made in this field. He recommends that we use whole milk, a quart a day for every child and at least a pint each day for grown-ups. We have not realized the food value and the protective value of milk. Dr. McCollum also recommends a large use of leafy vegetables for the same reason.

The classification of foods will prove helpful in the planning of meals whether for a family or a large group. Foods are grouped as follows:

Group 1.—Body building foods include lean meats, poultry, fish, oysters, clams, milk, cheese, eggs, dried legumes, nuts, and other protein rich foods.

Group 2.—Starchy foods furnish energy and consist of bread, crackers, macaroni, rice, cereals, breakfast foods, meals, flours and other cereal foods.

Group 3.—Fatty foods furnish energy and include butter, cream, lard, vegetable fats, salt pork, bacon, chocolate and other fatty foods.

Group 4.—Fruits and vegetables furnish mineral matter. They are spinach, peas, lettuce, potatoes, turnips, apples, oranges, berries, other vegetables and fruits, raw or cooked.

Group 5.—Sugar foods furnish energy. They are syrup, honey, jellies, dried fruits and candy.

All five groups should be represented in the diet every day, and about one-tenth of the entire amount should be chosen from the first group. This will insure enough building and repair material. A generous selection from the fourth group will insure the necessary bulk, mineral substances, and organic acids. Many times when a meal is analyzed one finds too much fat, too much protein, or too much starch, or perhaps not enough mineral matter present. With a little attention to selection, using this simple classification as a guide, the meal may be planned easily.

While it is not possible to say the last word on what to eat and what not to eat, there are many principles which if followed wisely would make for better health, which is the foundation of better living. It might be well to "think twice before you eat." At any rate think more about it in the future than you have thought of it in the past, act on the information you have, seek more information, and better health is sure to be your reward.

Planting Currants.

The best time to plant currants is in the autumn, says the Dominion Horticulturist, Mr. W. T. Macoun, who continues: If planted in the spring they will probably have sprouted somewhat before planting, and on this account their growth in the first season will be checked. Where the soil is in good condition, currants, especially the black varieties, make strong growth, and the bushes reach a large size; hence it is better to give them plenty of space, as they will do better and are easier picked than if crowded. Five to six feet is a good distance to plant. If planted closer, especially in good soil, the bushes become very crowded before it is time to renew the plantation. Strong one-year-old plants are the best, but two-year-old plants are better than poorly rooted yearlings. It is better to err on the side of planting a little deeper than is necessary than to plant too shallow. A good rule to follow is to set the plants at least an inch deeper than they were in the nursery. The soil should be well tramped about the young plants to prevent its drying out. After planting, the soil should be levelled and the surface loosened to help retain moisture.

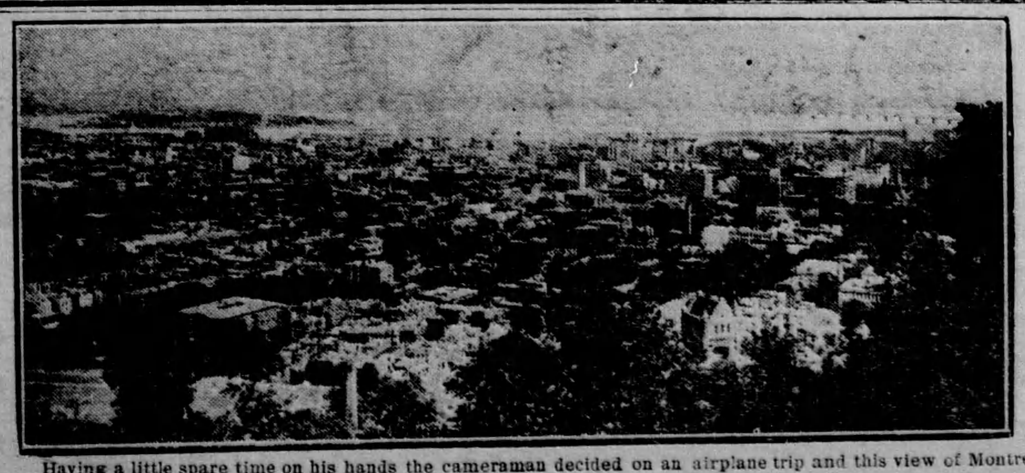
Would Be Wholly Undeserved.

"They say she'll probably win the peace prize."

"What, she! Why, to my certain knowledge that woman's responsible for at least a dozen marriages."

Yams belong to the Yam family, while sweet potatoes belong to the Morning-glory family. Irish potatoes belong to the nightshade family.

The windmill is the cheapest source of farm power, and it ought to have more credit than it gets. One drawback to its usefulness is that frequently it is placed too high up in the air. When the manufacturer sells the farmer a windmill, he wants to sell him a high tower to put it on. That is good business for the maker, but not always, for the farmer, because there are some locations where the windmill will do better work nearer the ground, and there will be less danger from heavy winds. Give the old motor fair play, and it will do its fair share of the world's work and hoard itself.



Having a little spare time on his hands the cameraman decided on an airplane trip and this view of Montreal from Mount Royal, looking south, is the result.