Soils and Crops

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SUMMER CARE OF YOUR HORSE.

More men fail in the care of their horses during the hot weather than at any other time of the year. We hav gathered together a number of suggestions which will be found to be valuable for the benefit of your horse, and your pocket, during the hot summer season. Remember that cleanliness always travels side by side with kindness.

The horse, like yourself, is subject to the troubles, diseases and pains of life. Therefore, be merciful.

GENERAL RULES.

1. A clean stable. No manure should be allowed to gather. The cleaner you keep the stable the better for the horse and yourself.

2. Screens on doors and windows. Plenty of fresh air (most important) can thus circulate, and flies can be kept from your horse.

3. Sponge your horse oftenest where he sweats the most. Rub him dry. Fluffy towels are good and cheap. Do not use the hose on your horse.

4. Cleanse eyes and nostrils, and occasionally the ears.

5. You cannot be too careful of the hoofs. Never allow yourself to leave the stable at night without thoroughly cleaning the lower portions of the legs and fetlocks. Where clay can easily be obtained, it will pay to pack the hoofs at least three times a week, making the clay into a stiff paste.

6. *Watch the shoulders.* If, while working your horse, you find the shoulders getting sore, far better for the horse, and yourself, to stop working for a half hour, rub down the shoulders and apply the following hardening lotion:

Tannic acid 1½ oz., powdered alum 2 oz., carbolic acid 1 dr., water 1 qt.

(I saw a span of horses last year that had been working on railroad construction for seven years, and had not been laid off for longer than two hours during that time on account of sore shoulders. The owner always had a jug of the above lotion right on the job and kept his horses in condition in the manner as advised in this article.)

7. Occasionally, during the day, sponge the head, neck and eyes.

8. Do not fasten a sponge on top of the head, *unless you keep it wet*

9. The straw bonnet is of some service, if there are ventilation holes through the sides. If the holes are not there, the use of the bonnet increases the temperature at the top of the head, just where it is least wanted.

10. Give your horse small quantities of water many times during the day.

11. When your horse comes in from a day's work in the hot sun, give him a chance to "cool off" before putting him into the stable, and give him plenty of water in small quantities. Then put him into the stable and feed. The above is a particularly helpful method during the hot humid weather, such as was experienced in this country for some days last summer. If you fail to treat your horse, as just advised, he is liable to start out tired the following morning and may collapse before the day's work is done.

12. Give your horse a chance to roll. It is oftentimes better than a dose of medicine for him.

13. If your horse is off his feed, give him a few carrots, or a bunch of clover, then two quarts of crushed oats mixed with a little bran and moistened, and add a little salt or sugar.

WHAT IS A BALANCED RATION?

The balanced ration idea is about twenty-five years old. That is, the talk of balanced rations was a comparatively new thing among farmers of twenty-five years ago, and it meant at that time, that a certain percentage of protein, carbohydrates and fat, must prevail in the ration to make it balance. Too much protein would cause the animal to grow muscle and frame or give milk, at the expense of flesh, and too great a proportion of carbohydrates and fat would produce fat at the cost of growth.

The world keeps moving on, we live and learn, and our ideas change as they are influenced by the information we take on. We have learned that there are many things essential to the well-being and normal development of an animal besides protein, carbohydrates and fat. We hear a great deal these days about minerals in the ration, and the newest thing we talk about in connection with proper food is vitamines. We all understand what minerals are and can readily see the connection between lime, phosphate, and salt, and strong bones, vigorous constitution and good digestion.

But these vitamines, what are they? What do they look like? Where do you get them? One needs a good imagination and a little scientific knowledge to comprehend them. But they have always been prevalent in greater or lesser degree in the live stock foods of the farm.

For all practical purposes we may consider them, along with minerals, as some of the "other things" that are essential to make a perfectly balanced ration. We understand then, that a balanced ration means a ration that contains, in correct proportions, all the elements that go to build up a perfect animal body, keep it in perfect health, and functioning after the manner of its kind. The horse must produce energy, the cow, milk, the sheep, wool and mutton, the hog and the steer, meat, and if the ration is thoroughly and completely balanced, they will do these things in a creditable manner and at the same time keep physically fit. Providing, of course, that such action is not made prohibitive by conditions of heredity, or disease with which the ration has nothing in common.

There are a great many combinations of minerals that are good, from a plain home mixture of wood ashes and salt, to those that are prepared by others and placed on the market at $5.00 or more per hundred pounds. A very efficient and easily provided mixture may be prepared on most any farm by combining wood ashes, barrel salt and rock, bone or acid phosphate that comes in the fertilizer sack. The self-feeder offers a convenient way of feeding them, and it only takes a little to go a long way.

The leafy portions of clover, alfalfa and other leguminous hays and grasses are rich in the life-giving and health-promoting vitamines. Bright, clear hay in winter, and fresh forage in summer are as essential to the welfare of our domestic animals, even the hogs and the hens, as are the concentrated grains. They and the minerals are needed to round out the ration and to satisfy the animal's natural appetite, which is the most accurate balancer of the ration.

SHEEP.

During hot weather and fly time in summer all animals do better with good shade in the pasture. Trees and brush may afford that shade. But in the absence of natural shade, it is well to provide some kind of cheap artificial shade. Such may be built of poles and covered with brush, straw or any rough material that will keep off the hot sun.

With us, from the middle to the last of summer, nose flies bother our sheep intolerably, causing the animals to fight the pest and seek shelter where they can hide their noses. This fly is active and aggressive from late morning till early evening, during which time the sheep are so severely tormented that they do not attempt to graze in the open pasture.

During severe fly time in hot summer sheep without adequate shade or shelter from the flies lose flesh and become unthrifty. Ewes with late lambs not yet weaned drop in their milk flow, hence their lambs are stunted.

When nose flies and other flies are bad in late summer our sheep graze only in late evening, at night and very early in the morning. But if unprotected from the insect pests, they lose flesh.

To make life comfortable for the sheep during fly time we have provided for them a cool, darkened shed on the north side of a larger building. The doors and windows of this shed are closed for the summer with burlap, making the interior quite dark. Flies will not follow the animals into the darkened room, hence the animals rest in peace during the heat of the day. We also have a low room in the middle of the general barn, always in semidarkness, which the sheep like to use during the heat of the summer day when flies are too aggressive. When furnished a dark room against the flies, both ewes and lambs thrive.

Concrete Facts.

The common practice is to use old lumber for building concrete forms. Many buy new, seasoned lumber and use this with a view to using it again in building the structure above when the walls have been completed.

But when the lumber is to serve no other immediate purpose after the walls have set, green lumber is, in many respects, better than cured lumber. All wood absorbs some water when used in this way and if dry boards are nailed tight and then allowed to absorb water from the concrete they will buckle and warp.

Green lumber, since it is already impregnated with an above-normal supply of moisture, will draw less from the concrete, and board dimensions will remain practically unchanged.

Before tearing off the forms in cold weather, remove one or two boards first and then apply hot water. If the water is colored or if rapid erosion takes place it is a sign that the concrete has not set but is frozen. If the forms are then removed, thawing would ruin the wall. But if the forms are left until the wall has thawed and then set, the concrete, though of an inferior quality, will usually give service.

When concrete work is carried on during freezing weather, either use hot water and pour the mortar quickly, or heat the sand and cement before mixing. If the concrete is more than 100 deg. F. when placed it will set before freezing.—D. R. V. H.

This swimmer is wearing his newly devised swimming cap fitted with glass coverings for the eyes and which also covers nose and ears.

How To Hang Our Pictures

BY DOROTHY ARNOLD.

"Pictures are for art museums, not for the walls of a house," a prominent lecturer declared recently. Such a statement draws instant protest from us, for how uninteresting our rooms would be without the relief of pictures! But when we consider the pictures on some walls, we see his point, for a room "full of pictures" means a cluttered and varied assortment of shapes, sizes, colors and subjects unrelated to each other or to anything else in the room.

A good rule is not to purchase a picture until we are sure just where it is to go and how it will look in that place. Most of us, however, have pictures on hand, inherited or given to us. Those should be hung which "fit in"; the others put away. This sometimes takes courage but after all our homes are ours!

Very often we come upon pictures which we wish to have framed. Many popular magazines print full page pictures lovely in subject and color, and very suitable for framing. Bright, gay covers from fashion magazines make delightful pictures for bedrooms and there are photographs which we wish to preserve by framing.

A narrow moulding of wood in old-gold finish makes the best possible frame for color prints. It is good to omit the mat and to have the frame come up close to the picture. Prints or photographs in sepia or grey and white are good in narrow frames of brown or grey wood. These should be of about the color of the next to the darkest spots in the picture. Black is not so pretty as it detracts too much from the picture, something which the frame must never do. For photographs, a mat may be used or the picture framed up close. Most photographs are best in frames with a stand placed upon a table, bookcase, or bureau rather than hung upon the wall. An accumulation of photographs is not in happy choice. I shall never forget a house in which I once lived where the walls were covered with hundreds of photographs of friends and relatives. Clustered about the mirror in one bedroom alone there were thirty-six of all shapes and sizes! The effect was almost that of a nightmare.

The manner in which pictures are hung can mar or make the looks and "feel" of a room. They should never be hung high. As one notices pictures mostly from a seated position, this should be taken into consideration. A good rule is to establish a line directly opposite the eyes when one is standing, and to hang all pictures so that this imaginary lin will pass through their centres. This brings them into the line of vision from all parts of the room whether one is seated or not.

Pictures are best hung in direct relation to pieces of furniture or architectural features. A large picture fits in well over a mantelpiece or over a sofa which stands against a large wall space. Smaller pictures are good hung over a desk, a table or over chairs. Very small ones may be hung in a group, close together so that little wall space shows between them and so that if bounding lines were drawn about the outside of the group the lines would be horizontal and vertical. Diagonal lines are to be avoided because we see them before we see anything else. If a picture is hung on a single wire, running diagonally to the hook, our eyes are unconsciously drawn directly to that hook. So it is better, if the picture is too heavy to hang from a nail back of it, to draw a wire through the screw eyes, making a small loop at each end and slip each loop over a separate hook so that the wires run paraller. Pictures hung in "steps" are no good for the same reason.

Very small pictures, the subjects of which cannot be seen a few feet away, should be hung over a desk where they will always be looked at from a short distance, or they may be placed upon a book case, or on a table against the wall, where they may be easily picked up and examined.

Try a Ripsaw Outfit.

Every farmer should have one. Often narrow strips of board are needed; to rip them with a handsaw from a board is slow and tiresome work. To make a trip to town every time some are needed takes time and the cost is high; you can buy the saw, also shaft and bearings, for the price of a few pieces already ripped out, at dealers' present prices.

Make a substantial frame from 2x3-size lumber, spiked or bolted together, with braces of boards nailed on; from the junk dealer you can get a suitable shaft and bearings with belt wheel. The saw will cost but a matter of a dollar or so for one of five-inch size, which is large enough. Fasten the bearing to the frame with bolts or lag screws, cover the top of the frame with boards, allowing an opening between them for the saw. A strip of wood can be used for a gauge, having holes bored in top boards or table in which to insert bolts of gauge. For power a small gasoline engine will pull it, or if you have electric power a quarter-horse motor will pull the saw through inch boards and rip up a lot in a hurry. Try one; you will wonder why you did not make it before.

Some people grieve two dollars' worth every time they lose a dollar.

A soft handful for the girls who hold them, these fluffy pups may prove a tough handful later for the driver of the Chateau Frontenac dog team. Mountie, the famous leader of the popular team, is the father of this quartet and four beside, Wabska, another member of the team, the mother of them all. Arthur Beauvais will give them their first lessons at Quebec next winter, a log being their first load.

Home Education

"The Child's First School is the Family"—Froebel."

"Comparisons Are Odious"—By Edith Lochridge Reid.

Clifford dislikes his cousin Frank—in fact the dislike almost amounts to hate—and the only reason is that ever since the two boys were old enough to distinguish right from wrong Frank has been held up as a "shining example" of behavior.

"Frank wouldn't sit down in the dirt with his best clothes on," is the way Clifford is reprimanded for his carelessness. "Frank doesn't take such big bites of food," is offered as an incentive toward good table manners.

The truth is that Frank is naturally disposed to be neat. His temperament is entirely unlike Clifford's and it isn't an effort for him to be clean and polite. Clifford has many good wholesome qualities, but he is husky and decidedly boylike, an altogether different make-up. But these things are not taken into consideration by his mother.

There is just one reason why a child should be asked or expected to act in a certain way or follow a given line of conduct, and that is because such a course of action is right and proper, not because some other child does thus and so. If you are going to set up an ideal for a child to attain, be sure the ideal is infallible. He will not reach this perfection of course, as no human being ever does, but it will be worth striving for. He should be inspired with an inward consciousness of right and not directed to act like some other child.

Julia's mother was very much crushed one day to find that her small daughter had stolen a bag of popcorn from the peddler's wagon.

"How could you do such a thing and make your mother feel so bad?" was the first reprimand Julia received for this misdeed—a remark which in itself was very bad psychology. A child should be taught to be honest because stealing is wrong and not because it makes mother feel bad.

"Betty took a bag first," said Julia defending herself.

"That's no excuse for you, my dear; you can't take things that belong to someone else even if your friend does."

"But mother, you always tell me Betty is so nice and quiet and good to her baby sister, so now why don't you put the blame on Betty?"

Can you wonder that Julia showed this resentment?

This case illustrates the fallacy of holding another child up as an ideal of behavior. Perhaps Jack does keep his hands clean but he may be deplorably deceitful. Suppose Mildred does go to bed without pouting and picks up her playthings without being told, she may be a very disagreeable, selfish little girl when she plays with other children. So beware of holding Mildred up to your little Mary as an ideal, for Mary knows all about Mildred's faults. It all comes back to what Julia insinuated to her mother about Betty, that if an ideal is set up it should be followed in all points—and yet there never was a child so perfect that you could say you wanted your child to be like him in every respect.

The only safe way, then, is to comment favorably on the good traits your own child possesses, and by thus stressing his best natural characteristics, inspire him to develop other good ones, not because some playmate has these qualities, but because they appeal to him as desirable. And, whenever you are tempted to set up "shining examples" before your children, remember the old saying, "Comparisons are odious".

Handling Natural Swarms.

To facilitate the handling of natural swarms, clip the wings of all laying queens early in the season, preferably during the first honey flow. Clipping the queen's wings does not stop the colony from swarming but prevents the queen leaving with the swarm, which will return as soon as the bees realize that the queen is not with them. When the swarm issues, the queen will usually be found on the ground in front of the hive. Place her in a small box or cage and while the swarm is in the air move the old hive from its stand, replacing it with a new hive fitted with empty drawn comb or foundation. Over the new hive place a queen excluder and on top of this, all the supers from the old hive. The swarm will return to the new hive and as the bees enter the queen can be released among them at the entrance.

To prevent after-swarms, the combs in the old, or parent colony should be examined at once, all queen cells destroyed, and a young laying queen introduced. If queens are available, leave one capped and one uncapped cell. The parent colony is left standing by the side of the new hive, but with its entrance facing at right angles to that of the new. Turn the parent colony a little each day so that in about six days its entrance will be facing in the same direction as the new hive. On the ninth or tenth day, when the bees are flying freely, move the parent colony to a new location, this will cause all the workers to unite with the swarm.

If by accident a swarm issues with a flying queen, it will usually cluster on some nearby tree or bush. After the bees are all settled, the limb on which they cluster can be cut off and the swarm carried and shaken down in front of a hive prepared for it, or it can be returned to the hive from which it issued, first destroying all queen cells. The old queen also should be killed and the colony requeened ten days later with a young laying queen. —C. B. Gooderham, Dominion Apiarist.

Loss of Milk.

In an experiment conducted by the Dairy Dept. of the Ontario Agricultural College to find the loss in weight, if any, in the process of pasteurizing milk, the following conclusions have been reached:

1. In commercial work probably over one per cent. of the weight of milk heated and cooled is lost when the pasturized milk is placed in cans.

2. On the average, about thirty-quarts and one pint of bottled milk may be obtained from 100 lbs. of pasteurized milk.

3. From 100 lbs. of raw milk about thirty-seven quarts of bottled, pasteurized milk may be expected.

4. The volume of cream which rises on the milk decreases with a rise in the heating temperature above 142 deg. F., when pasteurized for the city milk trade.

Old stovepipes make excellent cat guards for small trees and poles. Open the seam, put the pipe around the tree and then clamp the seam together again. For larger trees two pipes can be used. The pipe should extend about five feet from the ground. No cat can get over this.

In burning rubbish out of doors, keep the fires a safe distance from buildings, and never light fires on windy days. Two serious fires were recently started in our neighborhood by burning brush.—C. P. S.

THE CHILDREN'S HOUR

LAST DAY OF SCHOOL IN WOODLAND.

Only four days more before the last day of school. Hurray! Hurray!" sang Jimmie Fox.

"Yea. Hip! Hip! Hur-ray?" answered Jackie Rabbit. "School's been fine, but I'll be glad for vacation, too."

"Wish we could have a picnic like the boys and girls over in Frog Hollow did," wistfully spoke little Fanny Fox.

"Let's ask teacher. Maybe he'll let us," they all chimed in.

When the plea was put to Teacher Fox, he wrinkled up his long straggly eyebrows, peeped over the top of his glasses at the group, and consented.

So that was how on this bright sunny day all the little animal boys and girls of Woodland happened to be by the big lake in the woods, with their lunch baskets packed full of so many goodies. Everyone was ready for a good time, and that's what they had.

"Let's play train," suggested little Jennie Squirrel.

"Tell us how," asked all her playmates.

"It's easy and lots of fun," she said. "First we'll all get in a circle and I'll choose Sandy Squirrel, Fanny Fox and let's see—Willy Woodchuck, I guess—to be the 'engines'.

"When I say 'go,' each 'engine' must go up to some on in the circle and make a noise like an engine. Toot! Toot! To-oo. The one he faces must do the same and then turns and 'hitches on' to the engine and is the first coach of the train. Each engine keeps on doing this until there is a long string of cars behind."

"Teacher Fox can be conductor, and when he says 'all aboard' each train starts for the big oak there by the lake. The first train to arrive with all its passengers wins."

"A fine game, won't that be fun?" they all shouted.

What fun they all had playing train and trying to see which train could be the first one to the station.

But it wasn't long before they found themselves very hungry. Teacher Fox called them all together and how good that picnic lunch did taste—heaps better than when at school. After lunch they played some more games and each one got home just in time for supper. Evry little boy and girl in Woodland thought they had the most fun they could remember.

"I'm awfully sorry this is the last day of school," said little Winnie Woodchuck to Teacher Fox. "Now we'll have to wait a whole year before we can have 'the last day' again."

Too Much Oil.

The generator on a flivver showed no charge until the car had been driven for at least five miles. Then apparently it worked all right. The armature was cleaned and the generator tested without discovering anything wrong, yet the trouble persisted. The brushes appeared all right but finally a new set was installed and the trouble disappeared.

Overoiling of the generator causes the oil to collect on the commutator from where it works onto the brushes. This has the effect of insulating the surface of the brushes until the frictional heat of the running generator has had time to melt and break down the oil film and the brush again acquires its conducting properties.