

# EFFICIENT FARMING

## Suggestions on Feeding Mares in Foal

Oats, being a light, palatable and well-balanced feed, are by far the best grain for horses. Corn can be used if only forms about one-third or one-half of the grain ration of the brood mare. When wheat is fed, it must be in small quantities and ground. Bran, being a bulky substance, is very important in the mare's feed because it keeps from overfeeding and is a good regulator. Barley is also a good feed and being more bulky than wheat is very much like oats in composition; sometimes it is cooked and fed for medicinal purposes.

Timothy hay is used as roughage for horses. Sudan grass is safe for mares in foal. If cut in early bloom, orchard grass is about equal to any of the grasses for hay. Clover is good, and possesses great fattening qualities, but owing to the fact that it is likely to be dusty, great care should be exercised not to feed it to brood mares. Corn fodder and straw are fed to idle horses in winter, but they have not enough nutrition in them for mares in foal. Soybean hay is quite a nice hay, threshed or unthreshed, and liked by most horses; but, never feed it if there is any sign of mold. Alfalfa is an excellent feed if it is fed once a day with timothy hay or corn fodder at the other times. Due to weather conditions it is sometimes not properly cured; then it should never be used to feed mares in foal. There have been complaints from farmers that it makes the kidneys act too freely, but if it does not make up more than one-half of the roughage it is not likely to be noticed.

The mare will be healthier, foal stronger at birth, and parturition will be easier if she is used at some slow work almost every day. If the mare is idle in winter, most of the feed may be roughage, but the ration should be increased when the mare is worked. The quantity of feed is determined by size and condition of the animal—whether fat or thin—the work it does, sick or well, appetite, condition of the droppings and whether the animal is easy or hard to keep.—M. W. B.

My experience in feeding mares in foal, which covers a period of over twenty years and several different breeds, shows that it is important to have the right kind of mares to breed and then feed them enough to keep them in good healthy growing condition, but not too fat, as a mare "hog fat" is almost sure to drop a small and sometimes very weak foal.

I have fed nearly everything, but find oats, with a feed once a day of bright alfalfa or clover, about the best yet. Any kind of roughage, such as corn-stalks or oat straw, will do in between the alfalfa or clover. I find alfalfa or clover takes the place of bran in keeping the bowels loose.

If the mare is working regularly, a quart of wheat shorts twice a day, mixed with the oats, makes a strong ration; but I would not advise feeding this if the mare is standing any length of time between working periods.

If the mare does not foal until after the grass starts in the spring, turn her out on pasture for at least part of the day, as I find that green grass, sunshine and fresh water are the best renovators for any horse, whether a mare in foal or one that has been either raced out or worked out.

Another thing, allow plenty of salt. Have it where the mares can get it at all times and do not forget to give some knickknacks once in a while, such as apples, carrots, etc. If mares are in the stable, keep the stable clean.—W. Y.

Mares in foal require a balanced ration. Simply filling them up on corn fodder or straw will not bring the desired results; the mares must also have some feeds which contain protein, such as alfalfa or clover hay and oats. A ration composed of straw and corn will not furnish the necessary food elements, for they contain only carbohydrates which alone do not make a balanced ration. Mares in foal require more feed than do geldings or mares not in foal.

We allow our mares to run in the stalk fields during the day if the weather is not stormy and then at night feed them some alfalfa hay and oats. Very little corn is fed to horses; a small amount is all right, but should not be used as the exclusive grain ration.

Toward the end of the gestation period the mares require more feed than before, as the foal has now become of such a size as to require more nourishment from the mother and she must be fed more liberally in order to keep her own system up, as well as to nourish the foal. Plenty of fresh water should be available for the mare at all times, and it should have the chill removed. Ice-water is unhealthful for any stock and especially for mares in foal. A tank heater can be used to take the chill from the water.

Do not overfeed the mare. She should be kept in just moderate flesh, and when she is working her feed should be increased according to the amount of work required of her. As feeding time draws near, a laxative feed should be fed, one that will keep

the bowels in good working order. Not much trouble will be found in this way where alfalfa is fed, but do not feed too liberally as it will cause the bowels to become too loose. By careful observation, the groom is usually able to tell whether or not the feeds being used are what the mare requires, for if her coat is smooth and sleek, the bowels in good condition and she continues to carry the same amount of flesh, not too fat nor too thin, the chances are she will bring forth a vigorous foal.—D. H.

I find it good practice to give feeds rich in mineral matter. Oats, bran, clover and alfalfa are to be preferred. A grain ration may consist of five parts ground oats, four parts wheat bran, and one part linseed meal, with bright clover or alfalfa hay for roughage. I find the above formula good.—M. B.

## The Value of Farm Manure.

While it has long been known that farm manure profoundly increases the yields of farm crops, definite information is scanty regarding the value of such increase expressed in dollars and cents. For ten years the Central Experimental Farm at Ottawa has been conducting experiments to determine the value of farm manure applied to the mangel crop, which was the first crop of a rotation consisting of mangels, oats, clover hay, and timothy hay. To the mangel crop was applied 15 tons per acre of farm manure. A comparison between the crops produced on this land was made during a five-year period with similar crops on unmanured land, that was in an equal state of fertility when the experiment began.

With mangels, the large labor expense for hoeing and cultivating are the same whether the crop is large or small, while, of course, the preparation of the land and the seeding of the crop entail equal expenses. Only in pulling, loading and hauling would much difference exist. With oats there would not be a very marked difference in the expense incurred in handling a large crop as compared with that required for a small crop. Hay, to a greater extent than the two previous crops, would necessitate more expense for a larger crop, but the proportion of total expense would not be very great on high-priced land where rental charges are high.

In 1920, farm manure produced the following increased returns per acre: an increased crop of 15.5 tons of mangels at \$2.88 per ton, worth \$44.64; an increased crop of 8.8 bushels of oats at 58 cents per bushel, worth \$5.10; an increased crop of 1.7 tons of clover hay at \$24.30 per ton, worth \$41.31. As the second year crop on the unmanured plot was pastured and not cut, it was necessary to make an estimate of the increased yield in this crop over the unmanured crop. This has been placed at \$20.65 per acre. In the previous year the increased value of the four crops amounted to \$77.51, which gave \$5.17 for each ton of manure used. During each of the three previous years the manure gave a profit at a decreasing ratio, amounting in 1918 to \$6.14 per ton, in 1917 to \$3.74 per ton, and in 1916 to \$3.58 per ton of manure applied to the mangel crop.

These experiments clearly show that the use of farm manure has a value in farm practice, and should therefore be conserved to the fullest possible extent. For the five-year period from 1916 to 1920 inclusive, the farm manure used produced an increased monetary value on the four acres of land of \$391.29.

## Apples and Potatoes.

Apples and potatoes are the crops that are in most general demand among fruits and vegetables, and it is therefore interesting to note the returns from the different provinces of yields of these given by the Dominion Fruit Commissioner. Dealing with apples first, British Columbia exports an excess of 100 per cent. over last year, or 1,009,000 barrels; Ontario, a crop of 60 per cent compared with 1920, or 960,000 barrels; Quebec, 35 to 40 per cent. of last year, or around 35,200 barrels; New Brunswick about 10 per cent in excess of last year, or 33,000 barrels; Nova Scotia 10 to 15 per cent. in excess of last year, or 1,300,000 barrels. Turning to potatoes, British Columbia's crop is about 75 per cent. of last year, or 1,800,000 bushels; Alberta, 90 per cent. of last year, or 6,425,000 bushels; Manitoba, 90 per cent. of last year, or 5,115,000 bushels; Ontario, 45 per cent. of last year, or 10,783,000 bushels; Quebec, 75 per cent. of last year, or 28,225,000 bushels; New Brunswick, 70 per cent. of last year, or 10,857,000 bushels; Prince Edward Island, 80 per cent. of last year, or 4,940,000 bushels; Nova Scotia, 50 per cent. of last year, or 5,105,000 bushels.

The time taken for the current to pass through the Atlantic cable between Newfoundland and Ireland, a distance of about 1,700 miles, is one-fifth of a second, indicating a mean velocity in the cable of only 8,500 miles per second.

## Breeding Turkeys.

With turkeys retailing at 58c and 60c and over per pound, it would surely seem worth the while of breeders to pay them every possible attention. Above everything, it is unwise to dispose of the best and to retain only the culls. This policy, if followed, as in the case of every other species of livestock, leads to depreciation of the flock and a lessening of demand and price. In fact, of recent years there has been a noticeable decrease in quality, if not in price to the consumer. Inbreeding is another inadvisable course. If a breeder is to get the best, he needs to breed to the best. The introduction of new blood of a well-selected strain is a wise course to pursue. One thing to be especially avoided is the selection of immature hens for the production of eggs to be used for hatching. Hens, two years old, or even older, of good average size for the variety to which they belong, will lay eggs that will hatch out stronger and better pullets than hens a year old or younger. While the eggs can be hatched in incubators, results reached at the Dominion Experimental Farms proved that the poults do much better if brooded by the turkey hens. When the chicks are old enough, they should be given a wide range of pasture or woodland. They should be fed in the morning before wandering away and liberally in the evening to encourage them to return. Water should be available at all times.

A ration consisting of equal parts of finely ground oats, cornmeal and middlings mixed into a crumbly mass with boiling hot water or milk and fed a little warm is an excellent fatter for turkeys intended for the market. Separate those intended to be kept for breeding from those it is proposed to sell before commencing the fattening process, which should be started as soon as the weather threatens change in the fall. It is well for commercial breeders to confine themselves to one variety, as thereby they obtain a more uniform grade.

## The Bacon Hog.

The Deputy Ministers of Agriculture of every province, either in person or by representation, and representatives of all the principal packing houses, attended a conference on the bacon hog industry, called by the Dominion Minister of Agriculture, and presided over by the Deputy Minister of the Department, Dr. J. H. Grisdale, at Ottawa on November 2nd and 3rd. After a thorough discussion of the present situation as regards the bacon trade, grades and standards were adopted as follows and recommended for recognition: (1) A select bacon hog was defined as with jaw and shoulder light and smooth, back from neck to tail evenly fleshed, side long, medium depth, dropping straight from back, ham full, good general finish, no excess fat, and weighing from 160 to 210 pounds. (2) Thick smooth hog, not conforming to Wiltshire standard but of smooth fleshing finish, weighing from 160 to 210 lbs. (3) Heavies, any type of smooth fleshing and finish, weighing 210 to 260 lbs. (4) Extra heavies, any type of smooth fleshing and finish, weighing over 260 lbs. (5) Shop hogs, any type of smooth conformation, finished weight 120 to 160 lbs. (6) Lights and feeders, any type of smooth conformation, unfinished weight 160 lbs. and under. (7) Roughs, of rough conformation, any weight. (8) Sows, all females

## Lighting the Farm Home.

About a year ago we installed an electric power and lighting plant. At the time we felt it to be somewhat of a luxury, but soon found it to be a business proposition. In all, there are about fifty lights. We have one at the north and one at the south corner of the house, about fifty feet away, controlled from the kitchen. At night these light the lawn and porches and by being a little distance away, all insects are attracted to the lamps and do not bother the porches.

On the east and west corners of the barn there are large lights used only in emergency, and they are controlled by a switch at head of bed. A small motor is used to run the washing machine, grindstone, sausage-cutter, grain-cleaner and sheep-clipper. There is a vacuum cleaner, which is a wonderful labor-saver and a sanitary way to do the work. A power and lighting plant is a blessing to the farm home.—M. C.

## Know Your Hunting Ground.

The first thing to do then is to learn the game laws of the section of the province where you wish to trap. Copies of these can be secured from game wardens or from leading fur houses.

If you are going to work right at home where you know the hills and hollows, streams and trails and hidden holes, well and good. If you want to make an expedition far afield, then you have the fun of locating the trapping ground and establishing your centre of operation. Perhaps most of the work will be done, however, right around "the old home place" and then the whole family can have an active share in it.

## A New Cheese Originated at the Central Experimental Farm, Ottawa.

A new, medium high-flavor cheese has been originated by the Animal Husbandry Division of the Dominion Experimental Farms System. It is called "Meilleur Cheese," or "Le fromage Meilleur," and is being manufactured at the Central Experimental Farm, Ottawa. The process of manufacture is, briefly, as follows:

The milk is heated to a temperature of 90 degrees F. when it is rennetted and cut. The curds are then cooked at a temperature of 115 deg. F., and afterwards moulded and pressed, in one and three pound sizes, ready for the curing room. The process of curing is one of the most important features in the successful manufacturing of this high class product.

This new cheese possesses a very pleasing and delicate flavor with no objectionable odor, and has been pronounced a very superior product by the numerous experts and connoisseurs by whom it has been tried. It is a distinct and valuable acquisition to the cheese industry and the present indications are that it will meet with a very popular demand.

## A Whole County Advertises.

If it pays a manufacturer to display his name and wares on a big sign board, why wouldn't it pay livestock breeders to follow a similar idea in advertising their livestock? Thus reasoned the Gage County Livestock Breeders of Nebraska. For a starter they planned a county wide advertising campaign. They placed seven sign boards on the main thoroughfares, where they could be seen and read by the travelers through the county.

The boards are painted with a black background, with the lettering in white. They measure 7 x 10 feet and are easily read.

The breeders of the county are unanimous in their expressions of satisfaction for this method of advertising. By pooling their orders they have already sold six carload lots of purebred cattle and swine to other states, not altogether as a result of the sign-board advertising, but the boards have helped in many ways.

The Delta Juniors are looking forward to being able to present a better report of our work for 1921-22, and since "unity is strength," we surely will gain our objective.

that have raised one or more litters: No. 1 sows of smooth finish and underline up to 350 lbs.; No. 2, all other sows. (9) Stags, hogs that have been castrated and are well healed before being offered for sale. The packers agree to pay a minimum premium of 10 per cent. for hogs of the first class, in order to stimulate the production of hogs suitable for the best quality bacon.

## Specializing in Poultry.

One reason for failures in the specialized poultry business is the fact that it is a mass of small details. Men who can succeed in the dairy business often make a failure with poultry because they are not in the habit of watching the small details and consider some very important parts of the work as rather fussy labor which will cause no trouble if neglected.

Women sometimes succeed better with poultry than men because they are familiar with housework which is full of small details from morning to dark. They learn to pay attention to the small items and apply their tact and perseverance in housework to the management and development of their poultry flocks.

A poultry keeper has a constant fight on his hands to develop new flocks of breeding stock. The dairyman can accumulate a nice herd of cows of good producing ability and he knows that, barring unusual occurrences, he has an equipment for the dairy business good for several years. The poultry keeper no sooner obtains a large flock of high-producing hens when they reach an age of two years and their best laying period is over and a new flock of pullets must be ready to take their place.

A hen is a small unit and it takes many of them to make a large and profitable flock. The poultry keeper without experience who starts with many birds is unable to quickly understand their management. There is so much detail to the business that it must be started on a small scale and built up as the knowledge of the breeder accumulates. It is possible to succeed with poultry as many are doing, but no prospective breeder must assume that the work is easy if he expects to master the details and succeed.

## What the Delta Junior Institute is Doing

The duty of presenting a report of the activities of the Delta Junior Institute during the past year is a pleasant one.

Although on several occasions we have discussed the advisability of limiting our meetings to one a month, on every occasion the arguments in favor of meeting every two weeks have ruled, so we have 20 regular meetings to report, with an average attendance of 14. At present we have a membership of 22, which is an increase of eight over last year.

Our Junior Institute is considered to be the girls' social centre, where we meet at the homes of our members and enjoy one another's society. We find that our membership is growing so large that we can no longer be conveniently entertained in our homes, so we are arranging for a club room, which will be furnished and maintained by us, where we can hold our regular meetings and entertain our friends and other societies.

Our meetings consist of a business session after which we spend a social hour in discussions and various kinds of work. It is Ruskin, I think who says: "The reverence for the law should be breathed by every mother to the child who prattles at her knee," and we have completed a study of the Laws of Ontario and have had several interesting and beneficial discussions on this study. At each meeting a lunch is served which adds to the pleasure of all.

When we found we were in need of funds we decided to hold a sale at fair time, and we were very fortunate in securing a prominent space in the Exhibition Hall, where we displayed our fancy as well as useful articles. During the summer of 1920 our committee purchased material which was very skillfully converted into sale articles by our members. Many liberal donations were made by the business men and friends of the Delta Juniors, all helped to make our sale

a success. We were so pleased with the result of our sale that we immediately started preparations for a Christmas Gift Bazaar which, thanks to the enthusiasm of the members, also proved a success.

From our proceeds we donated liberally to the Navy League, Sick Children's Hospital, The Armenian Relief Fund, Muskoka Free Hospital, and we saved the lives of some Chinamen. On several occasions we have sent bouquets to sick friends. We consider our donation of \$20 towards educating a talented young member of our neighborhood hardly worthy of mention, beside the time, effort and money spent by our Senior sisters in that worthy cause which they have taken up.

We are offering prizes at the Fall Fair for the best pie and doughnuts and for the best fancy camisole, to be made by Juniors in each case.

On St. Patrick's Day, in the evening, we Juniors gave an Irish party, which was enjoyed by all in the good old Irish way and at which we were the gainers of four new members.

Early in May we spent a very pleasant evening entertaining our Senior Sisters. We had hoped to have the pleasure of entertaining our District President, but were disappointed, however, we hope to have that pleasure in the near future. In passing, may I say we have remarked on a paragraph in a past report of one of the Senior branches in which they offered a handsome quilt to the first girl married in the community. It may be of interest to you to know that during the short lifetime of our Club and Junior Institute, we have had the pleasure of presenting 15 wedding presents to our members; out of this number we have eight on our roll.

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## Right After the Pelt Crop

### A Profitable Side Line for Winter Time.

By GEORGE P. GOODRICH.

There is a crop adjacent to or within reach of most farms, which should prove profitable to the boys and young men of the family and even to "Dad" himself, if so he has the time to give to it and has still retained enough of the snap of youth to get out of the rut of his daily work.

I refer to the fur crop to be harvested by means of hunting and trapping. The statement is made by those who have got into the statistic side of pelt producing, if it may be so called, that the fur crop produces for the farmers of Canada nearly two millions of dollars each year.

There are pelt-hunters of all sorts, just as there are wheat or corn raisers of all sorts. According to the sort you are, is the crop you will have. Of course, the man who looks to produce corn from soil and in a climate not fitted to corn production, is bound to fail. If you live in a section where there are very few or no fur bearing animals of any kind, then why waste time hunting for them? But in those sections where certain of the furry tribe are plentiful enough to constitute a real menace to the farmer, it becomes his duty to be rid of them and it is a duty which if fulfilled industriously and intelligently will pay him for his time and effort.

Furriers tell us the outlook of the fur market for the coming season, considered from the trapper's standpoint, is excellent, and that right now it is wise to get outfits into shape and arrange the program.

The kinds of fur in demand this year are coon, mink, skunk, muskrat, opossum, fox. These animals are more or less common throughout Canada; more or less they are the farmer's enemies and take free tool of his labor. Since their extermination is therefore more or less a necessity and since their pelts have a commercial value, the boys and men—and not infrequently the girls—have reason for a systematic search for pelts.

Every boy knows—or should know—that while these predatory animals ruin the peace of the poultry yard and would steal our Thanksgiving turkey-feast from under our noses, if they could, still there are laws that protect them in certain seasons and laws governing how and when they can be hunted.

## Know Your Hunting Ground.

The first thing to do then is to learn the game laws of the section of the province where you wish to trap. Copies of these can be secured from game wardens or from leading fur houses.

If you are going to work right at home where you know the hills and hollows, streams and trails and hidden holes, well and good. If you want to make an expedition far afield, then you have the fun of locating the trapping ground and establishing your centre of operation. Perhaps most of the work will be done, however, right around "the old home place" and then the whole family can have an active share in it.

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without any care on our part, and is to be had for the taking, the best rewards will be gathered in by those who go at the work systematically and intelligently.

Know your hunting ground and its possibilities—know the game laws—study the requirements and prices of the fur market—familiarize yourself with the firms that buy—and choose the best market for the crop you mean to harvest.

## Attention to Details.

You may do all these things very well indeed and yet not make good for several reasons. Many a trap has failed because it was not in good shape, not baited right, not rightly set. Of course, you can make this whole matter of pelt-production a mere incidental of the winter's work and reap accordingly, a small reward. Or you can get down to brass tacks and by studying the habits of the prey, closely inspecting trails and tracks, and spoor, dens and haunts; by having the traps you need and in excellent condition, by placing them wisely, by inspecting them promptly and regularly—win the game. No—not win it either, for even then, unless you know how to handle your prey after it is trapped, how to get the pelt without spoiling it, how to stretch and otherwise prepare it for the market, you can easily lower its value if not lose it altogether.

Luck? There is no such thing. Everything operates according to law and the hunter who knows the rules of the hunting game, or in other words, the law, and meets that law, will get the game. He is taking a poor chance whose knife is dull or not the right size and shape, whose hatchet is an old thing with hacked edge and is handle liable to go back on him when he needs it most. Poor tools, poor workman.

I saw a new word the other day: trapperette. It made me a little mad, for I have a sister who traps with me and why she should be called an "ette" I do not understand. She goes where I go, knows what I know, does what I do. She wears proper clothes for the job. She is a trapper, straight out, with no "ette" in the business. Indeed, when it comes to real agility, delicate skill, a fine sense of direction and a queer intuition that seems to make her know what Brer Rabbit or Sir Skunk are thinking about and spoil their thinks for 'em—well, Sister has me pretty well buffaloed.

All furs have increased tremendously in value. Where formerly the annual catch of pelts was in the hundreds of thousands, it is now in the tens of millions. Therefore, competition is keen, not only in the field of actual hunting and trapping but in the fur market. Still, so long as fur is used, as it is now—and that will be so long as there is fur—for warmth and ornament, there will be selling and buying, and since the fur-bearing animals "live in the country" surely the farmer's family is the one that logically should profit by these pelts of animals who prowl and prey.

## Ground Oats are probably the best fattening food for poultry market.

Buckwheat comes next. For better results, fattening coops should be arranged in a building where very little light enters and the food should be given in troughs. Mix the ground grain thoroughly to a crumbly condition with hot skimmed milk or hot water. Feed a little at a time; always keep the fowls a little hungry.

It will require about two weeks to fatten young chickens properly, and during the last half of this period, prepared fat should be part of the mash. It is best to cook this fat in a portable kettle out in the open, some distance away from any building. Place rough fat in this vessel and cover with cold water to a depth of about five inches. A quantity of this fat may be prepared at one time, as it will keep in good condition for weeks and can be used as required.

After the fat and water have been placed in the kettle, start the fire and let the contents boil for two hours, after which the fat will rise to the top. This should be skimmed off into a pail, from which it can be poured into available pans.

When the fat has cooled for a few minutes, and before it has commenced to set, a cupful of cold water should be poured into each pan. The water will sink to the bottom and prevent the fat from sticking to the pan.

If old hens are fed on a good proportion of this fat for three weeks before being killed, their carcasses will be quite tender and juicy, provided they are steamed before being browned in the oven.

Young chickens should be crammed by hand for about a week before being butchered. Allow them to eat all they can, and then give them a few pellets so that their crops are well stuffed. Ground oats made into pellets from two to two and one-half inches long, and dipped into warm milk or fat, will easily slip down the throat. To prevent their getting lodged at the bottom of the neck, work the pellets down with the finger and the thumb. About once every three days add a little fine grit to the food.