

Soils and Crops

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GOOD VERSUS POOR REARING OF HEIFERS.

What may be affected by feed—Is a superior or inferior cow born or made? To answer the question definitely has required and will require a deal of careful and well conceived investigation work. The matter is by no means settled yet, but it is advisable to give out some of the information now available. Feed is supposed to affect size, type and production; and though it would take a whole book to cover all these points, a few words may not be amiss here.

Feed as affecting size—There is no doubt that a heifer fed a very grain ration will develop into a larger cow than one reared on roughages alone; but the difference in size is much more marked during the first few years and less so at maturity. Experiments conducted in Missouri showed the height at the withers of an eighteen-month-old, heavy-fed heifer to be 3.5 inches more than for the poorly fed one, whilst at maturity the difference was only an inch.

Feed as affecting type—Liberal feeding may affect type temporarily in that heifers so fed will be heavier and show beefiness of form instead of the angular conformation looked for in the good dairy cow. If, however, the heifer has inherited from her parents the factor of heavy milk production, she will usually milk off this extra fat during her first lactation period and ultimately develop into as good a producer as her more scantily fed mate.

Feed as affecting production—A few years ago an experiment was conducted at Cap Rouge with twins, so as to minimize the chance of error due to breeding. One of them was well fed, produced 11,392 pounds of milk testing 5.75 during her first two periods of lactation, and qualified for Record of Performance; her sister was not well fed, produced 8,767 pounds of milk testing 4.45 during the two first periods of lactation, and could not, of course, qualify for Record of Performance. But experiments conducted in the United States have shown that "the milking tendency of a cow when mature is not influenced to any appreciable extent by any ordinary variations in the ration fed during the growing period."

What course to follow—Under certain conditions, such as preparing pure bred stock for sale or exhibition, or when it is desirable to increase size somewhat, it might pay to feed very heavily on grain, and it must be said that there is no fear of hurting heifers in doing so, for if the cows are bred right they will lose the surplus body fat soon after calving. But, in general, the most profitable course to follow will be an intermediate one, between the two extremes; on very good pasture, no concentrate, and at other times, all the clover hay they will consume, with silage and roots when available, and a grain allowance of from 2 to 3 pounds per animal, per day, according to age.

SELF-FEEDING MY HENS PAYS ME.

For efficient poultry-feeding I find the self-serve method pays best. It can be used for every item in the ration except the scratch grain. Fowls need the exercise they get from hunting in the loose straw for the grain.

By far the most important element in the ration is the balanced dry mash. I have used both commercial and home-made mashes. The dry mashes recommended by the experiment stations are first class, but it is difficult

SHEEP

Every flock owner undoubtedly has observed at weaning time that some lambs in the flock have made more rapid growth than others. These lambs are always the pride of the owner and he wishes that all the lambs were as large and fine as the best.

The business of breeding ewes, apart from growing a profitable crop of wool, is to produce strong healthy lambs and keep them growing until weaning time.

Breeding ewes vary decidedly in their capacity to produce a large flow of milk. Subsequently at weaning time there is a lack of uniformity in the lamb crop despite the fact that the lambs were all dropped about the same time and the ewes given equal attention throughout the suckling period.

This variation in the growth and development of the lamb crop is in a large measure due to the milking capacity of the ewes. Dairymen long ago recognized the variation in the milk production of individuals in the herd. Flock growing and luck, thereby and direct attention to the selection of breeding stock of large milk production.

Physical conformation, as in the dairy cow, may in a measure direct the flock owner in the upgrading of his flock, but the test of a ewe's milking capacity is best evidenced in the growth and development of her offspring. Ewes' lambs retained to replenish the flock should be selected

sometimes to obtain all of the materials from local dealers. The use of a good commercial mash also saves time in mixing, and guarantees that the birds will obtain the elements necessary for egg production.

Hens will not gorge themselves on dry mash just because the supply is always available. Instead, after a few bites they need a drink to wash it down. Then they will scratch in the litter or peck at green food. Many farmers have neglected to feed a dry mash, believing that their hens would stand by the hopper and choke down many pounds of expensive feed. Such is not the case; a dry mash tends to make the hen seek a diversified ration.

Considering its cost, I find oyster shells about the best possible investment for use in our self-serve hoppers. The lime supplied by the shells enables the hens to place firm shells on every egg. They can't get enough lime from other feeds during periods of heavy laying. Strong shells mean few eggs broken in the nest or in transit. They also help to prevent the egg-eating habit. The saving of one four-cent egg will buy four pounds of shells.

I like plenty of sour milk in my chicken cafeteria. It should be placed in crocks on low stands to keep litter from being scratched into it. Sour milk has more than mere food value for hens. It seems also to be a preventive of digestive troubles, and helps to keep the hens vigorous. Hens that get plenty of milk seem to produce eggs with a high degree of fertility, that produce healthy chicks. The sour-milk crocks and pails need frequent scaldings to prevent bowel trouble.

Green feed furnishes the bulk that our hens need when on a concentrated ration. I find that mangels are the cheapest form of green feed; they can be sliced and fed in troughs, or whole mangels may be hung on nails. Cabbages are also greatly relished by the birds, and can be fed whole or sliced. If the sliced cabbages are fed in moderate amounts, none will be wasted; every bird will have a better chance at the green food if it is scattered around.

Sprouted oats are very appetizing to hens under winter conditions, and help to bring range conditions to the poultry-house floor. But it takes more time to sprout oats than to feed mangels, and so I believe mangels are the economical, especially if the flock is large.

I never neglect the water supply in my chicken self-serve. It is not heated, but given in galvanized pails just as it comes from the well. At noon the pails are emptied and refilled; they are always emptied at night to prevent freezing.

Grit is another item that the hens will look for in their self-serve. I have seen hens eat grit like corn after a neglected supply has been replenished; they cannot thrive without it. I find that the commercial grit is economical; a few hundred pounds will supply many hens. For small flocks, a few bags of fine gravel will do.

The old method of feeding poultry consisted largely in shoveling out grain on the bare ground whenever the hens looked as if they needed feed. The new method is based on a study of the hen's requirements for health and egg production. I often study my hens on the range, noting how they balance their own rations; first a bug or a worm, then a weed seed, followed perhaps by a few pecks at something green for a salad course. For profitable production it is necessary to provide these natural conditions in winter. This can be done by carefully managing the chicken cafeteria.

from deep milking ewes that have suckled their lambs well and encouraged large bone and flesh growth.

Illustration Station Work.

At present there are in all eighty-nine Illustration Stations in operation under the Illustration Station system, adopted in connection with the Dominion Experimental Farms some years ago. Of these ten are in New Brunswick, of which the Superintendent at Fredericton Experimental Station has general supervision, eleven in Nova Scotia, of which the Superintendent at Kentville Experimental Station has general supervision, and thirty-one in the Province of Quebec, fourteen of which the Superintendent at St. Anne de la Pocatiere has general supervision and seventeen are supervised by the Central Experimental Farm, Ottawa. A report has recently been issued covering the work of last year which should be of special interest to farmers in the three provinces named. In carrying on the work it is the practice to select land facing on the main travelled highways so that the methods of growing and handling the crops come under the public eye. Not only is the work noticeable from the highways, but discussions attended by farmers in the vicinity are held at the Stations during the growing season. Experimental and practical work is thus brought close to the farmers in the different districts. The report can be had free from the Publication Branch, of the Department of Agriculture, Ottawa.

Flax Production in Canada.

Like wool and other products of the farm, flax is now being graded. During the world war, after the manner of everything else that could be produced, flax sold freely at good prices, "even though of an inferior quality," as Mr. R. J. Hutchinson, Chief of the Fibre Division at Ottawa, says in his report for the year 1922. With the conclusion of active hostilities, conditions greatly changed, and until recently it was found difficult to sell any but the best grades of fibre. At the end of 1921 many growers had stocks on hand which they could not dispose of. With a view to securing a market Mr. Hutchinson paid a visit to Europe, but conditions were such that only small quantities could be sold at remunerative figures. Towards the fall of last year prices showed some improvement and a selling agent was appointed with headquarters at Forest, Ontario. Under the supervision of the Fibre Division, samples were assembled at that place and as a result, approximately four hundred tons of flax were disposed of at prices ranging from twenty to twenty-five cents a pound. The selection of these samples was so difficult, owing to the mixed nature of the flax submitted, that the necessity of grading was brought prominently to notice, and a grader was appointed by the Division whose duty it is to visit the scutch mills and supervise this work.

Nor is it only by grading that the work and usefulness of the Fibre Division have been extended. Experiments with varieties of seed are being conducted, not only at the Central Experimental Farm, Ottawa, but at branch Farms and Stations in seven of the nine provinces of the Dominion, and in 1921 a flax mill was established at Clinton, Ont., and upwards of 150 acres secured on which every branch of flax cultivation and tests of machinery are possible. The movement in the last mentioned direction was accelerated, it might be mentioned, by the destruction by fire of the scutch mill at Ottawa.

Why Are Cows Poor Producers.

Here are some reasons; choose the one that suits your case. They may lack breeding, or are underfed; or it may be because they were bred too young, because they lack care and management, because of disease, especially abortion, or because they are not persistent milkers. Any one of all these factors will make small milk cheques. The following are things that will make the cheques larger: Good breeding (good sires), proper development of their heifers, not breeding heifers too young, liberal and proper feeding, accurate records, good care and healthy cows.

Cow testing associations offer the best chance to find out whether your cows are paying for their board. If there are twenty-six farmers in your neighborhood who have several cows apiece, talk up an association. 'Twill pay.

How About the "Air" in Fair?

Or Why Some People Do and Others Do Not Attend These Annual Events.

Why do folks keep on going to fairs? This is a momentous question for fair managements as well as a reasonable one for the people who attend, and also for those who do not. Let us be charitable and say that the first reason for folks attending fairs is to gain information. It must be remembered that the demonstration method of education has long been the method used by our fairs. In fact, here is where the approved method of gaining first-class knowledge was introduced to the world.

An illustration of how this plan is now used to improve our intellectual equipment, we might refer to the old farmers' institutes. The general scheme of these institutes was to exchange knowledge by word of mouth. To-day, however, extension men are using the demonstration method almost entirely. They find the eye a far better medium through which to carry intelligence to the brain than the old institute workers found the ear to be. A second general reason for folks going to fairs is to be amused or entertained. This is no small reason. In fact, if we could poll the uncolored reasons why all our folks go to the annual events, the writer is not certain but what the idea of being amused or entertained would bring the majority of votes.

We should not depreciate this phase of the fair business. Healthful amusement is important in the well-rounded life and no place can be better adapted for providing a reasonable amount of good amusement than are our fairs. Finally, a good reason for attending is to take the children. Often the question as to who is to have the privilege of doing this work is little disturbance in our domestic relations. However, the reason is a valid one, for the fair is a great storehouse of things which every child in every home should have the opportunity of seeing.

Why do folks stay away from fairs? Let us now review briefly a few of the reasons why some folks do not attend these annual events. In the first place, many find it impossible to do so. Their duties are so arranged that they cannot leave when their particular fair is on. Again, many of our



To Lecture in States

The Earl of Birkenhead, who has arrived in this country en route to the Canadian Bar Association meeting in Montreal early in September, will also tour the States lecturing on conditions in Europe.

Ten Commandments for the Sheeplemen.

Use a good purebred ram. Discard all inferior ewes. Raise early lambs. Feed some legume hay in winter. Change pastures often. Treat for stomach worms. Keep the wool clean. The wool with paper twine. Produce early top lambs and wool. Sell product on its merits.

The Man Who's Afraid.

I've paid close heed to the ways of men, I've observed what the world calls luck, I have silently marveled, now and then, At the potent power of luck; And this is a bit of truth I pluck: A sentence that's worth one's heed; The man who is always afraid he'll fail Doesn't stand much show to succeed! —Roy Greene.

The most sublime moments lie very close to the most painful situations. We get the good things of life with the hard things, the bitter with the sweet.

An Old-Time Dancing Party.

BY MARGARET M. SCOTT.

Come in overalls or calico
Singing "Heel, toe, and away
we go!"
To our rustic BARN DANCE
rare,
When we banish time and care
By reels and old "square"
dances,
"Round" ones too, and sweet,
shy glances.
(Time) (Place)
(Wagon will call at 7.30.)

Wouldn't you love to send out that invitation on fiddle-shaped brown paper for an old-fashioned rollicking dancing party such as your grand-mother or your great-aunt Ann have thrilled you in the telling? Maybe you've wished all your life that somebody would give a real-for-sure Barn Dance, so that you could wear a pink calico dress and a frilly pink sun-bonnet. Why not do that somebody and give the dance yourself?

Ask the men to wear big straw hats and the girls sunbonnets, and, if wraps are necessary, capes or shawls instead of coats. Arrange to have the older people come in automobiles and carriages, but have the young people come in hay-filled farm wagons.

The barn needs little or no decoration—maybe some wisps of straw or hay, strands of vegetables, cornstalks upright in the corners, festoons of vines and leaves, and bouquets of wild flowers. Strew hay on the floor near the walls, where the young folks may sit between dances. The older folk can occupy boards stretched across "horses" or camp chairs. Ordinary glass lanterns will give sufficient light, although auto lamps would be safer. One or more large placards reading "No smoking" should be posted on the walls, and the men and boys should be requested not to smoke nor to throw matches about even in the barnyard, for fear of fire.

The dancing will be just as merry whether the program is written on a blackboard or painted on a muslin sign and tacked on the wall in a conspicuous place, or printed on individual cards. To accord with modern custom, a shorter program is given than was danced in olden times. The

dance would be more realistic, too, if it were noised about preceding the dance that Madam Grundy used to approve of a couple dancing the first and last dances and two others, but looked askance on them when they danced more than a total of six together.

As "extras" (rounds) were the joy of the dancers "of the day that is gone," the caller should announce one, say, after every fifth dance. For one of these, partners might be selected by giving numbered hat crowns (or brown paper sacks) to the men and similarly numbered hat brims and pins to the ladies, who fit and pin together corresponding crown and brim and placing the hats on the gentlemen dance away with them. For another extra you might give pink paper sunbonnets (numbered) to the ladies, and similarly numbered pink streamers and pins to the gentlemen, who find the matching bonnets, pin on the streamers, place the bonnets on the owners, and dance with them.

The music may be provided by one fiddler, who also calls the dances, or by drum and piano, violin and piano, or several stringed instruments.

During the intermission serve refreshments consisting of quarter wedges of pie, doughnuts, apples and cider. No plates or napkins are needed, as pie can be eaten out of hand and cider drunk from a tin cup.

Let the men who do not dance play checkers and quots; the children play authors, parchesi, and bean bag; or all may play crambo.

To play crambo, the leader calls a word out loud, and the first player has to make a two-line rhyme using this word and another rhyming with it. If he responds in a reasonable length of time, he is credited with a red mark; if he fails to do it, a black naught is set down against his name. The leader calls another word, and the second player responds. This is repeated until all have responded, or failed so to do. The one scoring the most rhymes has the fun of calling a word for which the leader must make a rhyme; and if he fails, the others who failed decide on a forfeit he must pay.

water. He does his drinking by absorbing moisture through the skin. When twilight comes, the toad knows it is about time for him to get up, and he opens one eye at a time, blinks them both to see if they are all right, shoots out his tongue to make sure it is in working order.

It is estimated that every healthy toad with a coming appetite and a good digestion, is worth at least five dollars a season to the gardener for the destruction of earthworms alone. He has been known to devour a hundred rose beetles, or fifty army worms at a meal, and then get up from the table looking as if he expected dessert.

My Cheap Water System.

I solved the water situation on my farm twenty years ago by installing an inexpensive supply tank that gave sufficient pressure to force water into the house and to the other farm buildings and the feed lots.

I set a wooden tank on a seven-foot brick foundation near the house, on a relatively high point of ground. This tank holds 65 barrels of water. In addition to furnishing water for the house and livestock, I irrigate my garden in the summer, using a 50-foot hose to carry the water from a hydrant near the tank.

I have never had any trouble from freezing. I use the space under the tank made by the foundation to smoke my meat. In extremely cold weather I build a small fire there to eliminate entirely the possibility of freezing.

My supply tank is set under a large maple tree. In the summer the water is always cool and refreshing. There is no stagnant water because fresh water is pumped in by the windmill every day, and the shade helps to keep it cool.

Don't Burn Stalks.

For every ton of stalks burned, \$3 worth of nitrates goes up in smoke. The potash and phosphorus are not lost, but left in a heap of ashes and are never evenly distributed through the soil. Plowing under the stalks and other litter has a three-fold benefit. First, it adds much needed plant food to the soil; second, the decaying vegetation, in contact with the soil, goes through a nitrifying process and renders available much plant-food that is already in the soil in an insoluble silicate form; third, it adds humus to the soil and assists in holding moisture for the next crop.



"How do you make your wife pay attention to what you have to say?"
"Talk in my sleep."

THE TIMELY STITCH

Stopping the clock does not save time. Neither does one gain time by delaying the thing which should be done without delay.

There is a class of work that needs attention during August and September. We refer to getting the buildings and equipment in shape for the coming winter months. There are excuses galore for not tackling these things, but that does not in the least overcome the fact that the jobs should be looked after.

A nail in time often saves nine. Little jobs of repairing grow into big jobs surprisingly rapid. A leaky barn or granary roof will allow a portion of the harvest stored below to spoil. And then fixing up a roof and doing other outside repair work cannot be done in every sort of weather.

The peculiar thing is that the type of man who needs these reminders is usually the man who uses more energy in thinking about the reasons why he should put off a job that is worrying him, than the accomplishment of the task itself would ordinarily require.

"I'll do this thing now," has not only enabled many men to accomplish a particular job, but often it has been the beginning of a new life. In other words, bringing oneself to take the timely stitch; particularly when there are many excuses for not doing it, often helps one to get started on the road to success.

French Don't Talk Shop.

Perhaps one reason the French have been somewhat disregarded as a business nation lies in the fact that one never hears talk about business matters in the restaurants, hotels or other public places.

An American who has represented a New York house in Paris for a great many years and who goes about socially a good deal told me that he had never, outside of office hours, heard any French business man speak of commercial matters, even to the extent of saying "How's business?" He went on further to state this:

"The average Frenchman of affairs would not think much of any man who carried his business around with him all the time. The feeling is that if a man is really competent he ought to be able to make a success out of his business during business hours; that if he can't do it there is something deficient about him.

"Just this, perhaps, explains why Anglo-Saxons have an idea that the French business man is a light-minded person, thinking more of his pleasure than his duty of business. In fact, it is a matter of principle as well as pride to lock up commercial matters with the closing of the office door.

"As a matter of fact, the average Frenchman puts in longer office hours than the Englishman, and probably works fully as intensively as most Americans. Practically all the Paris executives I have talked with are at their desks at 8.30 in the morning and stay until 6 in the evening, with a strict limit of one hour for lunch. Nor is there the half hour in the afternoon for tea, which is the invariable custom in English offices."

Liked His Work.

Whistler, the artist, once took Horne, his framer, to look at one of his paintings at an exhibition.

"Well, Horne," he said, "what do you think of it?"
"Think of it?" was the enthusiastic reply. "Why, sir, it's just perfect—perfect. Mr. Wilkins has got one just like it."
"What!" asked the puzzled Whistler. "A picture like this?"
"Oh," said Horne, "I wasn't talking about the picture, I was talking about the frame."

Cat and Dog Life.

Patrick and Bridget had been married a long time, but did not get along well together, for they were constantly quarrelling. It happened, however, that one day they were sitting directly opposite each other. Presently Bridget said, "Faith, Patrick, isn't it a shame we should be always quarrelling? See the cat and dog, how peacefully they get along." "Och, Bridget, sure an' it isn't a fair comparison at all; just tie 'em together and see how they will act!"

"A man who cannot save his first dollar cannot save the last."

It is important that we know, before we support them, that our agricultural leaders are unselfish.

Give the other fellow a chance to talk; he will appreciate the courtesy, and you may learn something.

To cover an acre of ground with an inch of rain, 100 tons of water would be required.

A queer and unknown fish, with a monkey-like face, and legs seven inches long, bearing fins, has been captured at the Semaphore, Adelaide.

A man can't half work and half play; he must either be a hard worker and a success, or a poor worker and a failure.—E. W. Howe, publicist and philosopher.

This is the age of science. Before we believed many things; now we know many, and are learning more every day.