Soils and Crops

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Dairying By Guess and By Gosh.

As the dairy herd comes fresh for another years' yield of milk, it is a good time for the farmer to start testing his cows and knowing what each one does—or does not. The dairy farmer who does not keep systematic records of each milking cow in his herd is not doing justice to himself nor to his cows. He may be over-feeding a record-producer or he may be over-feeding a worthless scrub, either of which is not a paying proposition.

A farmer may have a world-record cow and not know it if he does not test. Tom Barron, of Brantford, Ont., never would have known that he had a cow capable of producing nearly 1,600 lbs. of butter in a year, if he had not been testing Bella Pontiac. As a result of a year's testing, this cow advanced in value from between $200 to $300, to a value of anywhere between $5,000 and $10,000. Pretty good pay for only one year's work on one cow!

The actual time of weighing and testing, probably did not take Mr. Barron over two minutes a day for weighing the milk three or four times a day; while the testing was done by Government-employed men in the Record of Performance, the actual cost of which was very little—practically nothing but the cost of board and lodging for the inspectors while at the farm two days a month. In addition, the cow was tested under Record of Merit rules part of the time, for which the owner is required to pay the supervisor $3 per day and traveling expenses. It is doubtful if the whole cost of having this cow's milk tested officially for a year was more than $150. This was money well invested, but before it was invested, Mr. Barron had himself carried on tests that demonstrated something of the great possibilities of the cow. But suppose, on the other hand, he had kept blindly on? What an opportunity would have passed right by the Barron farm!

The dairy farmer has three systems of public testing open—two applicable to those who keep pure-bred cattle—one of these open to but one breed, Holstein-Friesian; the other, open to all dairy or dual purpose breeds. The third is the cow testing association open to all dairymen whether they keep pure-bred cows or grades. All should easily be able to get into one or other of these three plans for testing cows—Record of Performance, Record of Merit, or Cow-Testing Associations, and receive the benefit which comes from contact with others interested in a similar line of work.

There may be farmers who, for various reasons, are unable to take up testing in any one of the three public systems mentioned, but who would like to know what each cow is doing in the herd. This may be done by following the following rules: To do any job well, we must have proper tools. This applies to cutting wood, digging a ditch, or to any one of a dozen pieces of work on a farm. So, for testing cows, we must have suitable tools. These are: a milk scale, preferably of the circular-dial, two-hand-type; milk pails all of the same weight, a milk sheet properly ruled for days, or three days a month weighing for each cow; and a lead pencil attached to the milk sheet for convenience. If every dairy farmer went no further than this and weighed each cow's milk regularly throughout the year, he would have taken a marked step in advance over the "by guess and by gosh" method of simply not knowing what his cows are doing or not doing.

The milk scale can be bought from any dairy supply house at a cost of from $3 to $5, and when properly cared for, will last 25 years. It should be kept dry, oiled occasionally, and not be subjected to heavy loads. It should be used only for milk weighing purposes. Good milk pails cost from $1.25 to $1.50 each from hardware dealers or tinsmiths. If there is any difference in weight, this can be adjusted by adding solder on the bottom of the pail. Although the daily weighing gives the farmer the widest possible knowledge of what each cow is doing, weighing three times a month is accurate enough for all practical purposes, say on the 1st, 10th, and 20th. If a cow gave an average of 30 lbs. daily for a month, she would be credited with 30x31—930 lbs. for that month.

The milk scale may be hung from the ceiling of the stable or milk room by means of a wire or rod; or, it may be suspended on a wall bracket so that the pail will be clear of the wall when weighing. The milk sheet may be tacked on the wall, or kept in a cabinet which can be made or purchased. It should be kept clean by having a glass or paper for the milker's hand to rest upon when recording weights. If everything be convenient it will not take a minute a day to weigh and record each cow's milk in the herd.

At the end of the month, the totals should be obtained for each cow, and these transferred to a Herd Record Book. On the evening of Dec. 31st next, the monthly totals for each cow should be added, and the average for the year made. All cows which have not produced at least 6,000 lbs. of milk, except their milk tests high in fat, may be regarded as unprofitable. Some owners are adopting standards of 8,000, 10,000 and 12,000 lbs. of milk per cow per year. When we consider that the average pounds of milk per cow is probably between 3,500 and 4,000 lbs. we can see that there is much room for improvement in the dairy herds. This improvement can be brought about only through improved breeding, and by weighing the milk from each cow during the whole lactation period.

The foregoing is the first step in systematic improvement of dairy cattle. The next is that of testing for milk fat. Fortunately, in the Babcock test we have a comparatively simple method of determining the fat content of milk. The owner may test the milk himself by using a four-bottle machine, costing about $10. He ought, however, to take a few lessons, or a short course, in testing.

It is very important that the sample be properly taken. After all the milk is in the pail, stir and take out about a tablespoonful, placing it in a bottle having the name or number of the cow marked on the bottle. Do this night and morning, preferably for two or three days. In hot weather, a preservative will be needed if samples be taken for more than one day. Preservative tablets may be purchased of dairy supply houses. If these samples are taken once a month during the lactation period, results will be satisfactory. Some claim that if samples for fat testing be taken during the second and fifth months of lactation, that this gives results accurate enough for all practical purposes. The main point is to take samples for testing, often enough to know how each cow's milk tests for fat. This is especially true where milk is sold on the fat basis.

To apply the results: Suppose a cow has given 930 lbs. of milk during the month, and her milk tests 3.6 per cent. fat. She will be credited with 930x 3.6 plus 100 equals 33.48 pounds fat, or nearly 40 lbs. of butter for that month. (When calculating butter from fat, add one-sixth to the pounds of fat.)

Although this may look like considerable extra work, when it is once started and the owner becomes interested in knowing just what each cow is doing, the work is easy and the time is not begrudged. With every farmer using systematic methods in his stable, the work is not only more interesting, but much more profitable.

Protect Locks from Rust.

Sometimes very simple devices will do a lot for protection and convenience and can be made by anyone. Padlocks are frequently found frozen, and also rusted from continual exposure. Here is something that prevnts all this Cut a piece of rubber from an old boot leg, about six-by-six inches. Tack it to a strip of wood one-by-six inches, and nail it to the building above the staple that holds the padlock, so that the rubber will hang down over the lock. Here you will always find your padlock dry and not frozen. Do this when the lock is new. It can't rust then.—W. E. F.

The risk of being struck by lightning is five times greater in the country than in cities, and twenty times greater at sea than on a railway.

Four hours' hard thinking exhausts the tissues as much as ten hours of manual labor.

Hogs

The strong pigs in the litter never lose their start on the smaller ones. It is these larger ones from which we get the greater profits. A great deal depends on the condition of the sow, whether she will produce good strong pigs and feed them well, or a litter of weaklings and then have nothing for them to eat; whether her system is nice and cool or feverish and hot.

In the one case the sow will be good-natured and let the pigs suck, and will furnish plenty of milk; in the other, fretful and peevish, the chances are that she will eat her pigs as soon as born, if she gets a chance.

All these conditions depend very largely, if not entirely, upon the way the sow is treated and fed during pregnancy. It is an almost unheard of occurrence for a brood sow, running out on good pasture, to eat a pig. Sows are not cannibals by nature, and are only made so by poor feeding, lack of exercise, etc.

Pigs should not be weaned until they are at least eight weeks old, and if the sow is not to have a second litter, or if there is time enough in case she is, it is better to let the pigs suckle until they are from ten to twelve weeks old.

Farmers often get in a hurry and wean pigs when they are only six weeks old, but unless there is an abundant supply of milk and especially good care is given, the pigs are likely to become stunted, sometimes so severely that they never recover. The cheapest way to put gains on young pigs is through the sow. She has a strong digestion, and can turn coarse grains and pasture into easily digested milk.

Careful experiments show that a pound of weight taken from the sow will make more than one pound of gain in the pigs, the flesh of the animals containing more water. The sow should be fed to produce a high yield of milk, and the pigs should be kept with her until they get to eating a full feed of both grain and pasture. When the time comes to wean the pigs, cut down the sow's rations to water and a little grain. Take away the stronger pigs first, leaving the weaker to suckle for a few days longer. These few things carried out will have much to do toward pork profits.

Teach Children to Avoid Traffic Dangers.

Parents should teach their children to use the utmost care wherever there is traffic, either congested or otherwise, if they wish to save them from danger which, as time goes on, will be worse instead of better, unless some unforeseen wisdom is put into action by authorities.

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OLD CHUM

The Tobacco of Quality

Home and School Club Encourages Music in the School

By May P. Munro, Fergus, Ont.

This year our Home and School Club experimented with the question of encouraging the teaching of music in our Public school. How did we do it? First, our club renovated a hall (part of the school property) and equipped it with chairs and other furniture. Then, adding to an existing piano fund, we bought an instrument and presented it to the School Board. With the sanction and co-operation of that body we persuaded one of our club members, a lady who has had a thorough training in both instrumental and vocal music, to take charge of the music classes. We divided our school into two classes and gave each class about a forty-minute lesson per week. Our idea was to simply teach the children to sing songs, but our teacher goes deeper than this, and is following the course laid down by the Department of Education.

Just here is where our greatest difficulty lies. Our classes are too large, and we would like to have three classes instead of two, but the salary is totally inadequate to the services rendered and we feel it would be imposing on good nature to ask our teacher to devote more time than she is doing unless we substantially increase the remuneration.

I would like to bring to your notice the fact that, no matter how proficient a music teacher is or how much experience she has, no Government grant is given to a school board unless the teacher of music holds a teacher's certificate and has taken a few months' course in music. If we had that grant it would aid materially in the salary question. We expect to finance our music classes by means of entertainments and a school concert once a year.

I might say that Guelph is up against the same difficulty we have. They wanted to engage a local teacher of splendid attainments, but they would lose the grant, so they engaged a qualified teacher from Brantford to come three days a week.

We think our music lessons are most valuable. The children are learning to sing by note in proper time, and with proper inflections. They are getting a number of songs which are used in the schoolroom, and are a great help to the teacher who is not able to sing or to teach a new song. Of course, we realize results would be better if we could have two lessons a week instead of one, but, on the whole, we feel that our efforts are bearing fruit.

Women's Clubs in the Province of Quebec

After learning the principles of domestic science and agriculture in domestic science schools and convents of higher teaching, the girls and young women of our rural districts in the Province of Quebec are organized into clubs under the name of "Women's Clubs" (Cercles de fermieres). The first of these clubs was established in 1915. There are to-day seventy clubs, including 4,740 French-Canadian farmers' wives and daughters, under the general supervision of Mr. Alphonse Desilets, B.S. A., whose headquarters are at the provincial Department of Agriculture, Quebec.

In seeking to promote the economic interests of mankind, the essential part played by woman and the influence that she exercises upon the vocation of children should not be forgotten. Under intelligent management by devoted nuns, the domestic science schools endeavor to influence women to remain on the farm. They do this by training dutiful wives, thrifty housekeepers and experienced helpers for the "man with the hoe." However, it is only a small number, as yet, of farmers' daughters who go to these centres of science and practical training. The majority of the women and girls in our rural districts have yet to be reached, and the women's clubs are the means by which this work can be done. The fundamental idea of this undertaking is to keep our population on the land, to protect it against the lures of the city that attract our rural youth, and to direct this youth towards its natural and normal vocation by fostering a liking for family life, for farm life and for the parish or community life. This movement, which has for its motto "Cling to the home and to the farm," has therefore a double object: to attach woman to the home by indissoluble ties, by making pleasant and easy the accomplishment of her duties as housekeeper, wife and teacher, and to keep on the land our sons and daughters by making rural life more attractive. The Quebec Department of Agriculture gives a liberal assistance to local organizations that will take part in this useful, patriotic and social work.

The means employed by the clubs are practical, limited in number and well defined; the aim (a) to make more attractive and easier for the woman the accomplishment of her moral and material duties towards her husband, her children and herself; (b) to show her and her family how indispensable and how health-giving the work of the farm is; (c) to make her the champion and main support of the community organization, maintained in the peace and the love of the traditions that have safe-guarded our race.

The accomplishment of this program is entrusted to local councils of supervision, constituted of enlightened women—mothers of families or persons whose conduct and authority ensure sufficient influence for the success of this work.

The provincial Department of Agriculture gives material assistance through its domestic science division, supplying a general director and teachers experienced in domestic science, in the care of children and in woman's work in agriculture. Each club receives from the Department an annual grant covering the expenses of administration and permitting the organization of competitions and similar work. A large quantity of vegetable seeds and flower seeds, of eggs for hatching, of pure-bred fowls, of bee-hives and bee material are distributed annually by the Department, and encouragement is given to the reorganization of domestic textile industries for wool and flax.

On the other hand, the clubs organize courses in domestic science, cooking, sewing, hygiene, care of children, and nursing the sick. One day each month is set apart for studies. Agricultural community days are arranged as well as mother's days and all other manifestations likely to keep up the brotherly and patriotic sentiment in healthy religious tradition.

A general congress of women's clubs is held every three years; one was held in 1919 and one is arranged for this year.

The clubs are supervised by the provincial councils, and they have an official organ in "La bonne fermiere," a domestic science and agricultural review for women, which is published every three months.

The main provisions of the statutes are as follows:

Each club is administered by a Board of Directors composed of a president, a vice-president, a secretary, a treasurer, a librarian, a lecturer and two councillors.

All women and girls taking an active interest in agricultural work are eligible as members of the club, after being presented by the Board of Directors and accepted by the majority of the members of the Board. The annual membership fee is not less than fifty cents.

For the study and the diffusion of good methods of agriculture and domestic science, the members of the club divide into committees, each charged with the study and promotion of a special line of work.

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Wearing Spectacles.

BY DR. C. H. LERRIGO.

If you are forty or past, and you suddenly discover that your vision is not what it used to be, don't be alarmed. It is nothing more than a natural deficiency. It means that the crystalline lens of the eye is not so flexible as heretofore. It is beginning to harden. It never will work again quite as well as in the old days and you must give it the artificial aid of a glass with a slightly convex lens.

The fitting of spectacles assumed in middle life to adjust such natural changes can be done without any use of "drops" in the eyes to dilate the pupils. The real need for "drops" is when there is astigmatism or some other error of refraction and the doctor needs to examine the whole eye very carefully. This is even more likely to be required in children who need glasses than in adults.

The fact of the matter is that it is more important to have the eyes of a child correctly fitted than those of the adult. When children, especially those in school, require spectacles, it is usually because of near-sightedness (myopia). The ciliary muscle, which controls the lens of the eye is exceedingly active in children and a proper examination is quite impossible until it is put at rest. That is why medicine is dropped into the eye by the doctor before the examination is made. The medicine quiets the muscle and the dotcor is able to see properly and judge of the real condition. Perhaps it is worthy saying that homatropin, the medicine now chiefly used by doctors for eye examination, is quite transitory in its effects, the eye becoming active again in 36 hours or less.

Never make the mistake of using spectacles bought at a notion store or of a travelling peddler. It is great folly to trust the care of your precious eyes to some man whose education in the specialty is limited to a few weeks training in "fitting glasses." You need one thoroughly trained, not alone in the eye but in all of its relations to the whole human complex.

When you get your glasses let the doctor tell you just how to wear them, and have him personally examine the frames to see that they are properly adjusted. To give full efficiency, not only must the centres of the lenses correspond to the ocular centres, but the distance of the lenses from the eyes must be proper. There should be just sufficient space to prevent the eyelashes from touching the glass.

Sheep Notes

Breeding ewes suckling lambs all summer become run down in flesh and out of condition. This is not a fault of the ewes, but rather a desirable quality, as it shows a tendency toward liberal milk production essential to growing a profitable lamb crop.

After the lambs are weaned the ewes should be put onto scant pasture for a few days to dry up the milk flow and give the system an opportunity to adjust itself. The ewes need from now on every possible chance to recruit up in flesh in a natural healthy manner. Heavy feeding is not advisable for the present.

If possible turn the ewes onto a stubble pasture. There is always a variety of feed on stubble land that will stimulate the appetite, and at the same time cause the ewes to take on flesh gradually, which will put them in good condition for the mating season. If the stubble pasture becomes scant supplementary feeding may be advisable or other pasture that is not too succulent to induce scouring should be provided.

In every flock there are a few ewes that show unusual tendency toward milk production and if they have suckled twin lambs during the summer, are likely to be well reduced in flesh. These ewes should be closely watched and given the best of care as they are the most valuable ewes in the flock. It may be necessary to divide the flock and put the thin ewes by themselves where they may receive a light grain ration.

Australian Aborigines are usually regarded as a very low type of humanity; yet one who recently died was a clever shorthand-writer and a keen student of English literature.