EFFICIENT FARMING

SPONTANEOUS COMBUSTION IN HAY MOWS AND THE ANNUAL FIRE LOSS IN ONTARIO.

The farmers of Ontario have at last begun to realize, so says Prof. W. C. Blackwood of the Ontario Agricultural College, that each and every one of them is bound by the laws of national economy to play his part in the attempt to wipe out the disgrace of the past few years, when millions of dollars have been lost in the destruction of our best farm buildings. There is nothing surer than the fact that if a farmer persists in putting into the barn poorly cured, or moist hay, sooner or later his turn will come to stand the total loss of his buildings and crops through spontaneous combustion of the hay.

1. The Fire Marshal advises "caution."

2. The insurance companies plead "safety first."

3. The farmers who know by sad experience what barn fires mean speak loudly against attempting to store poorly cured hay.

4. The Agricultural College warns all farmers against the extreme danger which accompanies the practice.

5. The individual farmer places poorly cured hay in his barn at his own peril.

All who know agree that the practice should be stopped and stopped immediately, that means this year, now, before you put in that wet or partially cured load. It is not a case of "will there be fires," it is simply a case of whose turn it will be to suffer the loss. Only the reckless will fail to heed the warning. Let the hay spoil in the field rather than try to store it in unfit condition. If you do the latter the hay will lose its food value anyway, and it will show a lack of knowledge of good farm practice on the part of the farmer.

Increased acreage of clover hay in the past few years and the habit of curing only the leaves, leaving the stock improperly cured, is one of the two main causes which lie at the root of the increase in the number of barn fires. The other cause is *haste* in curing and storing crops with up-to-date machines (good in themselves but abused by many).

This article is an appeal to every man to act wisely this year and refrain from putting even one load in an unfit condition under the roof of any building upon which he places any value. Even if it is insured, *somebody pays the price.*

ERADICATE THE THISTLE.

The Canada thistle can be eradicated if thorough work is done at the right time, so says J. E. Howitt of the Botany Department, O. A. College.

1st By early after harvest cultivation on stubble ground.

2nd By careful and persistent spudding done in such a way as to prevent the plants developing above ground.

3rd By frequent introduction of hoed crops into the rotation.

4th By seeding with clover, taking one or two crops of hay, plowing shallow early after harvest, and cultivating frequently through the fall.

5th By summer fallowing.

CANADIAN VARIETIES OF FARM CROPS GROWN AT HEART'S DELIGHT FARM, CHAZY, N. Y.

The Heart's Delight Farm at Chazy, New York State, consisting of eleven thousand acres, is one of the most noted farms in America. It is interesting to learn, when on a recent visit to this farm, that the hundreds of acres of spring grains under cultivation were, in all instances, varieties which had been originated in Canada; the oats and the barley at Guelph, and the spring wheat at Ottawa. The O. A.C. No. 104 variety of winter wheat, originated at Guelph more recently, was being tested out.

JULY SEEDING OF SWEET CLOVER.

Experiments at the Ontario Agricultural College, conducted within the past four years, show excellent results from seeding sweet clover alone in the month of July. The seedings which took place later than July were unsatisfactory.

DAIRY

Milch cows should be handled very carefully in hot weather. There is a great deal more danger of injuring cows giving a large flow of milk in hot weather than there is in cold weather.

Cows on good pasture and well-grained produce a large flow of milk during the summer season, consequently along with the irritation of excessive heat are called upon to perform heavy physical labor. To hurry the cows or cause them to run from excitement is likely to overheat them and produce digestive disorder and sickness.

Many dairymen find it necessary to drive their cows some distance to and from pasture. Where cows are brought up from the pasture at 4.30 o'clock in the afternoon, as most dairymen practice in order to begin milking, the cows are exercised during the hottest time of the day. Every measure of precaution should be taken not to hurry the cows at this time.

In handling the herd to and from pasture it is not unusual for a cow to cause a little annoyance by running out to one side, back to the pasture or perhaps refuses to go immediately into the stable with the rest of the herd. Have patience with her. Do not yell at her and call the dog, but work quietly and talk kindly and she will generally go in without trouble.

Cows handled carefully at all times give a larger yield of milk, keep in better flesh and prove more profitable.

Care of Milking Utensils.

Milking utensils during the hot weather should be kept clean. Cleanliness is not only essential to the production of high-grade dairy products, but also to the health of the family, especially if milk is used on the table and butter made on the farm.

At Forest Grove Farm we separate our milk. The separator is thoroughly cleaned daily. As soon as separating is finished we cleanse the bowl by running eight quarts of hot water (not quite to the boiling point) through the separator. Boiling water will set the casein and make it more difficult to wash. The bowl is then taken apart and each part washed separately in warm water then scalded. We do not use any special preparations in washing our dairy utensils.

In hot weather the sun is one of the most effective germ destroyers we have. All dairy utensils used I hang or set in the sun for four or five hours. I know that it requires more time and labor to keep dairy utensils clean in hot weather, but it is time profitably spent.—Leo C. Reynolds.

Tips on Bee-Keeping.

Every beekeper knows that some colonies are much easier to handle and more profitable than others. The good qualities found in certain colonies should be encouraged and in building up the apiary become the predominant characteristic.

Colonies differ markedly in disposition to swarm. Some colonies spend most of their time during the working season swarming. Swarming of course, can be held in check, but it is not advisable to encourage this tendency in the apiary. I consider it a good plan to divide colonies that manifest a good working disposition with only moderate tendency toward swarming.

Colonies possessing an active working characteristic to gather honey and store sufficient up for their own use and surplus production, should be encouraged. There are colonies in every apiary that are lazy and slothful and should be destroyed. Such colonies are unprofitable, besides are likely to bred robbers and disease carriers.

Colonies meriting a disposition to rear strong healthy queens and drones should be an essential factor in upgrading the apiary. Weakness in the queen or drones is very likely to breed laziness, impotency and disease. Nothing but strong, vigorous colonies should be selected from. The queen and drone colonies that are chosen as the foundation for upgrading the apiary should be active workers, resistant of disease, and good honey gatherers.—L. C. R.

POULTRY

Egg eating is a habit that seems to come from idleness and the fact that the eggs are laid in open nests. Sometimes it can be stopped by filling an egg with mustard and red pepper and placing it in view of the hens. The best remedy is to have nests which are slightly darkened. The hens enter on a track at the rear and the eggs are removed by lowering the door in front. Then the eggs can be gathered often.

Keep the hens busy in scratching litter and turn them out on range if possible. When they are busy outdoors they have less time to form bad habits in the poultry house. Provide the hens with plenty of oyster shells so the eggs will have firm shells and not break easily in the nests.

Haymaking Hints.

There is an old saying, "Make hay while the sun shines," with which Prof. Wade Toole of the O. A. College agrees—and fortunate is the farmer who gets sunshine for the job. However, with hay to harvest, one cannot always wait for the weather. One of the essentials in the production of good hay is that it will be cut at the proper time. It must have sufficient maturity to ensure curing quality, but over maturity means coarse, fibrous, low quality feed. Sweet clover should be cut in the late bud stage. Alfalfa is ready just as it begins to blossom and the new shoots are starting at the base of the plants. Red clover is handled to best advantage when approximately one-third of the blossoms have turned brown, and timothy just after the second blossom falls.

In curing sweet clover two methods are followed. Perhaps cutting with the binder and stooking up like grain until the crop is dry saves leaves better and gives as good results as can be obtained. Or the crop may be cut down and allowed to lay in the swath for about two days' sun and then raked into small windrows. If the weather is dry about three days in the windrow with an occasional tedding makes it ready to harvest. If the weather is catchy it is advisable to coil the crop as soon as it is raked up.

Alfalfa is more easily cured than sweet clover. If the weather is fine it may be cut in the morning and raked the afternoon of the following day. It must not be allowed to remain exposed to the dew too many nights or bleaching results. After raking, if the sun shines, one more day in the windrow generally makes good hay. If rain threatens coil it up immediately and let it make in the coil. In any event be sure it is dry when harvested and be careful of the leaves in handling as they constitute the most valuable portion of the feed.

Red clover is the common clover hay crop. Much of it is allowed to get over-ripe because it then cures more easily. It may be handled in the same manner as alfalfa but, unless the crop is heavy, does not usually take quite as long to cure. The hayloader has changed methods to some extent. It is good practice to cut one day, tedd the following morning and rake the next afternoon. If the crop is very heavy it may have to lay over an extra day. It is surprising how much faster hay will make, after it has gone so far, when pulled or rolled into windrows. If it is to be coiled the work should be done soon after raking, and the hay should remain in the coils for a few days to sweat out. However, most of it is drawn out of the windrows and if dry makes good feed.

Timothy is the easiest to cure. If crop and weather are right it may be cut one morning and hauled the next afternoon and, in fair weather, is always ready by the third day. It is not necessary to coil timothy to cure.

No matter what the hay crop, cut in time, rake as soon as possible to hasten drying, tedd only when green or damp and coil in catchy weather. No doubt alfalfa and red clover may be made into the best hay by coiling but in good weather this extra work in not necessary and the loader hastens the harvest.

Thinning Apples—Both Size and Quality Improved by the Practice.

Thinning fruit is not at all general among orchardists in Eastern Canada, and attention is directed to the advantages of the practice in a bulletin "Modern Orchard Practices," prepared by the Horticultural Division of the Dominion Department of Agriculture. In the process of thinning, spotted or deformed apples are removed. Where there are too many apples in a cluster the poorer ones are removed, thus giving the remaining apples a better chance to develop. A safe plan is to thin so that no two apples will be touching each other on the same cluster. In the demonstration orchards at Kentville, N.S., Experimental Station, thinning experiments were carried out with the Blenheim Pippin with satisfactory results. The apples were removed about the middle of July. When the fruit was picked, it took 649 apples from the unthinned trees, but only 549 from the trees that were thinned to fill a barrel. The increased size of the apples on the thinned trees made up in bulk for the apples removed, and the percentage of No. 1 apples proved to be 58 per cent. against 32.3 per cent. from the unthinned trees. Shipped to the English market No. 1 thinned apples brought $2.01 per barrel compared with $1.67 for the unthinned. The conclusion drawn is that where the trees are at all loaded, it pays to thin. This is particularly the case of such apples as the Baldwin, which produce heavily every other year, as moderately large crops can be obtained every year if thinning is practiced to some extent.

To criticise [illegible] one of the easiest things to do. [illegible] is due is [illegible]

Pointers on Painting by a Painter

A Business Where a Little Knowledge Often Saves Many Dollars

BY CLIVE B. PRICE.

One can safely say that fifty per cent. of the farmers' buildings in Canada need painting. The author reached this conclusion when crossing the country by rail between the Great Lakes and the Pacific over two different routes and noticing the condition of the buildings along the right-of-way in the country through which he passed.

If you are among the fifty per cent. whose buildings need paint, and you paint them this year, you will have made an investment that will be offset two ways. It will add more than what it cost you to the value of your place, and it will add years to the life of your buildings. However, the main purpose of paint, when composed of a good combination of ingredients properly mixed and skillfully applied, is to form a complete weather-proof covering to all the wood and metal in your structure. Without this protection both wood and metal soon deteriorate.

Although the usual procedure followed in getting a job of painting done is to call for competitive bids on the work and let the job to the lowest bidder, one should have some knowledge of just what a good paint consists of, and have it definitely stated in the contract as to the kind of material to be used and how applied.

A job of painting done with some of the cheap, adulterated materials that are found on the market to-day, and these improperly applied, is almost as good as no job at all.

It is not the author's policy in this article to boost any particular brand of ready-mixed paint, or to say a thing that will injure any brand. However, if a brand of ready-mixed paint that is put up by some good reliable house that has a large patronage, is being used, it is only reasonable to expect such a company will keep the quality of their goods up to a certain standard which will protect their future business.

The proper compounding of paint demands great skill and experience and it stands to reason that a manufacturer who has had years of experience in the business, the proper machinery for the grinding and mixing can put out a much better mixture than the local painter, who buys his material and mixes it on the job.

In many districts throughout the country the competition in bidding on jobs has become so keen between local painters that in order to keep up the standard of wages they have been forced to sacrifice the quality of the materials used and speed the work up to a point where it is impossible to do a thorough job.

This adulteration can be quite easily accomplished by a painter who mixes his own paint and has some knowledge of the many kinds of cheap materials that are being used.

These materials are found on the market under many different names. The raw material principally used in the manufacture of these adulterations is as follows: Carbonate of lime or chalk white from the chalk pits of England and France. Chalk contains magnesia, silica and clay. Paint containing a very large percentage of chalk has a tendency to be gritty and does not work freely under the brush. Sulphate of lime or gypsum (also known as plaster of Paris), is used extensively to adulterate zinc white. This can also be detected in the same manner, as it does not work as freely under the brush as the pure zinc or lead.

Baryta is a white stone found in veins with ores of lead, silver and mercury. This white stone is ground to a very fine powder then cleaned of all foreign substances by a process called floating. This consists of mixing it with water and running it through a series of settling tanks. In the last tank, the milk-like substance is allowed to remain until the water clarifies, then the water is run off and a pure white substance is left in the bottom of the tank. This is removed, dried, and ground again and is now ready for use.

In this form it is known as sulphate of baryta, and is used to adulterate both white lead and zinc. Baryta slides free from under the brush and makes a good paint, its only bad feature being the fact that it is less opaque, and does not cover as good as an all-lead paint.

These are just a few of the pigments used to adulterate paint. We should also give some consideration to the relative quality of oils.

For all exterior work there is only one available that is capable of drying reasonably fast and forming the film or binder required to produce a good lasting job, and that is the raw pure linseed oil.

However, there are a great many substitutes being used to-day by painters in doing cheap work. The cheapest and poorest of these is a by-product of crude petroleum. This oil is doctored up with dryers and called various names.

A job done with this kind of oil will look fine while it is fresh, but at the end of thirty days will have the appearance of a job of kalsomining.

Fish oil is sometimes used to adulterate linseed oil. In this case the binding qualities of your linseed oil is weakened in proportion to the amount of fish oil used.

The only substitute for linseed oil on the market that has any value as a paint oil is the true soya-bean oil. However, most of the so-called soya-bean oils sold to painters is merely the residue left after extracting the finer grades for cooking oils. The one bad feature of the soya-bean product is that it is a very slow dryer. This makes it necessary to doctor it with artificial dryers.

When red lead, litheroge, or Japan dryers are used, the quality of the paint is impaired. Tungate or cobalt dryers give the best results with soya-bean oils.

The most important feature in getting a good job of painting done is to see to it that all surfaces to be painted are first properly prepared.

All scale and blister should be removed with a steel scraper or steel brush. All surfaces where the old paint is decomposed so that it rubs upon the hand should be gone over thoroughly with a steel brush or a good stiff scrubbing-brush. If a good grade of paint is now used and well brushed in on the first coat, you will have a job of painting that will last and look well when the cheap jobs are being done again.

DON'T KEEP THEM BACK

Youth is the age of wisdom, and of ambition to fulfill that vision. When these visions are unhampered and the ambitions directed into constructive channels, youth accomplishes things worth while. When interfered with the eagerness to do is either killed or used in destructive ways. Most of our criminals are young people whose energies have not had proper guidance.

It is, therefore, quite necessary that we, as parents, give due consideration to the ways of our young folks, and listen attentively to their hopes and desires. It is our most essential parental duty to direct and encourage their energies along worthwhile lines.

For this reason we regret to hear that frequently parents do not give permission when the children are eager to take up boys' and girls' club work. Perhaps the chief reason for such an attitude is that mature people hate to make changes, and think that the assimilation of new-fangled ideas by the young may disturb the parents' travels along their narrow, well-trodden paths of life.

This common human failing is probably keeping many boys and girls from taking an active interest in progressive agriculture and maintaining their interest in farming as a livelihood. It is likely to cause young folks to dislike their rural surroundings and to seek at the earliest opportunity the city's bright ways.

Therefore, we beseech all parents in behalf of their children, that at least they offer no barrier to the young people taking up club work. If they but knew the benefits which have come to thousands of boys and girls through club work, they would encourage their children to the utmost to become active in it.

I Sell to a Hatchery.

I keep the purebred White Wyandotte chickens of from 300 to 305-egg strain. Instead of selling eggs to the stores at market price, I contract all of them from February 1st until August 15th or September 1st to a hatchery for 10 cents a dozen above the market price here. I have built up a reputation for good chickens, and sell lots of eggs by advertising in our town paper.—Mrs. L. H.

The successful farmer co-operates with the weather to grow good crops.

No matter how they squeal, give the hogs their worm medicine. A farmer made a dollar a head more last year on pigs treated with santonin capsules.

From time to time peoples have revolted from the over-loading of governing bodies, either with men or with prescribed formal duties. Wise leaders who are seeking the permanent good of their people keep as far as possible from this danger.