

THE MAGAZINE GUARDIAN For Parents, Pupils, Teachers, Farmers, Dairymen, Horsemen

TO THE FARMER

Farmers and others interested are invited to contribute to The Farm, The Dairy, The Turf, and Good Roads departments of the Guardian either by question, correspondence or otherwise. Answers will be given by experts to all questions of general interest and space will be given to any articles that will in any way help to advance Prince Edward Island interests.

Contributors are asked to have their articles at this office early each week, as only a short emergency item can be handled as late as one p.m. Wednesday. All received after that hour cannot appear until the following week.

THE SCHOOL AND THE HOME

Contributions for this department should be addressed to the Guardian, School and Home, P.O. Box No. 116, Charlottetown.

DWELLING HOUSE HAZARDS.

HOW TO PREVENT FIRES IN THE HOME.

Fires in the home are easier to prevent than to distinguish.

Unlike factory fires, many of which are due to causes inseparable from manufacturing, practically every dwelling house fire is due to carelessness or neglect. Especial care should be taken in the home to prevent fires from starting, because when they do start there is seldom a man about to extinguish them. Where women and defenseless children are housed, every human consideration demands the most vigilance on the part of those responsible for their welfare.

If the suggestions in this bulletin are understood and heeded, many a life may be saved and many a home successfully guarded against destruction by fire.

1. HOUSEKEEPING. The attic, cellar and all closets and outbuildings should be cleaned at least once every year, and all useless material and rubbish removed therefrom and burned. These unnecessary accumulations are dangerous, and are the cause of many fires. Store all remaining material neatly so that a clear passage may be had between, or around boxes, cases, barrels, etc.

Metal waste baskets, only, should be used.

In storing clothing, first remove all matches or other material from the pockets and then carefully fold and neatly place away. Do not hang clothes where they will be near hot chimneys.

Care should be exercised in burning leaves, dead grass or rubbish. Keep these fires a safe distance from buildings, and never light them on windy days.

Do not bank houses in the winter with straw, excelsior or other readily inflammable material; a chimney spark or carelessly thrown match may ignite it.

2. MATCHES. Use only safety matches, and make it impossible for children to get them. Always place burned matches in metal receptacles; never throw them on the floor or in waste baskets.

3. SMOKING. To smoke in garages, in bed, or around stoves containing hay is deliberately to invite disaster.

4. LIGHTING HAZARDS. Swinging gas brackets are dangerous, and never should be allowed near curtains or dressers. Fix them rigidly so as to avoid contact with combustible material. If open gas flames are within two feet of ceiling, see that ceiling is protected with sheet metal or asbestos board. Tips for gas lights are inexpensive, while a light used with a broken tip or without a tip often causes fire. Don't use pendant gas mantles unless protected underneath with wire gauze. Hot carbon deposits form and drop from mantles of gas arc lamps. A globe closed at the bottom is safer.

Examine the gas meter, see that it is securely set and well connected, and is not located near open lights or furnaces. An outside gas shut-off valve to service-connection is desirable. Never look for gas leaks with a match, candle or lamp.

Where a dwelling is lighted by a gasoline vapor or acetylene gas system the rules governing the safe use of these illuminations should be carefully studied and rigidly observed. Illuminating oils should be kept in closed metal cans in a safe place, and lamps should never be filled except by daylight. Kerosene lamps should be kept clean and properly trimmed. If allowed to burn all night select one that contains much more than enough oil. A dirty lamp containing only a little oil is unsafe. Lamps with broad bases are preferable. Care must be taken not to place them near inflammable material, under shelves, nor to set or leave lamps or lanterns in stables or other places where animals may upset them. Never allow little children to carry lamps, and never set a lamp on a table cover. Children may pull them over.

Do not use paper or decorative shades of inflammable material on lamps or electric light bulbs.

Electricity is a hidden hazard, and extends throughout the wire system in a building. Be sure it is safely installed, and have the system carefully inspected and passed upon by a

recognized electrical inspector. Many are due to defective electric wiring. Do not destroy the insulation on electric light, fan or heater wires by hanging them on hooks or nails. Immediately repair or replace any defective switches, fuses, sockets, etc. Use the "safety valve" of an electric system, and should never be placed by one of larger size or any other material.

Before attaching electric irons, vacuum cleaners, cooking utensils or any other electrical device to your lighting circuits or sockets, consult an electrician as to the ability of your wiring to withstand this additional load. Electric wiring systems are designed to carry only a certain current, and if overloaded may cause fires. Numerous fires have been caused by leaving electric irons with the current on. Disconnect them immediately when through using.

5. HEATING HAZARDS. Coal and kindling should preferably be kept within a brick or stone enclosure and not stored against frame partitions nor directly against walls, boiler or furnace rooms. Never put kindling into the oven. Deposit all ashes in metal receptacles or upon non-combustible floors, moving same from building at least once a week. Barrels or boxes should not be used for storing or carrying ashes unless they are constructed entirely of metal.

Never start fires in the autumn, thoroughly clean out furnace and use thereto, also fire-places. Carefully examine them and immediately repair or replace any defective part. Don't burn out chimneys and flues making an especially hot fire with paper etc. Main chimneys should be leaned from roof to cellar, and all types of pipes entering them provided with metal collar and rigidly fixed in place. Replace any tile, rack or flimsy flues and chimneys with substantial brick chimneys. Long lengths of metal stovepipe are dangerous.

At least an eighteen-inch clearance necessary between top and sides of furnace, stove and flues from ceiling, partitions and other combustible material. Repair at once any rotten plaster in ceiling or partition walls.

Do not have steam pipes in contact with woodwork or near inflammable materials, and do not permit rubbish to accumulate behind steam coils or radiators.

Gas stoves or other heaters should have a ventilating flue to carry off burned gas fumes which are poisonous. Do not use portable rubber or similar tubing, but connect all stoves rigidly and securely with a pipe. Examine valves and see that they are tight and do not leak. Never permit a stove of any kind to be set up without stone, brick, concrete or metal protection underneath, or near a partition without a metal shield and air space.

Never run stovepipes through partitions, or paste paper over flue holes.

All types of open fireplaces or stoves, especially where there are children, should be provided with substantial spark screens.

Don't throw waste paper on an open fire.

In the period of extreme cold results in numerous fires due to forcing the heating apparatus. Keep this in mind next winter. Watch your heater.

Keep hoods and pipes of kitchen range free from grease and lint by leaning with hot water and lye. Do not hang clothes or bags near ovens, or on stovepipes or steam pipes.

Do not allow your family to jeopardize their lives by pouring kerosene into the kitchen fire to hurry it along.

Extreme care should be used with alcohol or kerosene stoves. They should always be filled in the night and away from any open flame.

6. GASOLINE AND EXPLOSIVES. Do not use patent cleaning fluids, oil or chemicals unless you know something about them. Many of these contain explosives and oils of a dangerous character.

Do all gasoline cleaning in the open air, and caution the members of the family to refrain from using kerosene or like volatiles in the house. His material should not be kept in the house nor in glass bottles.

Beware of rags or cloths used in mending floors or cleaning or polishing furniture. They may ignite spontaneously. Be sure and burn them after using. Leaving them about for only a few hours may mean a fire.

7. FIRE PROTECTION. One or approved chemical fire extinguishers should be placed in every room. They must be protected against freezing.

It is well to see that the garden hose may be attached to the kitchen sink.

bor, three and a half inches from the bottom. To obtain the best results this hole should be faced with thick paper or felt. When a lamp is used it is necessary to cut an additional hole in the bottom large enough to admit the burner and another in the lid through which the chimney may project.

It is possible for anyone with a little patience to tell at a glance the main points of difference between good and bad eggs. Any of the forms of candling apparatus suggested above, or others equally as good, may be purchased at a small cost.

Neither the small cost of the apparatus nor the amount of labor entailed in candling presents any valid reason why the public should be obliged to use or accept bad or incubated eggs. Storekeepers will find it to their advantage to acquire facilities in candling and it is recommended that every housewife should provide herself with a simple candling appliance by the diligent use of which she may safeguard her family from any unpleasant occurrences at the breakfast table.—Pamphlet No. 3 by W.A. Brown, Live Stock Dept., Ottawa.

A NEW TOBACCO PLANT DISEASE

"THIELAVIA BASICOOLA" is the other hard name applied to a new disease which threatens the tobacco crops of Ontario. Its chief characteristic is the stunting of the crop, with the arrest of all development. The better varieties, particularly the variety known as the Burley, seem to be more susceptible to the disease than many harder varieties. This disease is ascribed to the presence of parasites in the soil, and the Tobacco Division of the Seeds Department at Ottawa are at the present time preparing to supply an efficient remedy.

Meanwhile the recommendation is to pull up the tobacco roots in all affected areas, to sow the ground with corn, cereals or Crimson clover, and if corn is sown, to cultivate and keep as clean as possible. The ground should be treated with superphosphate to the extent of about one thousand pounds per acre, and bush oak, unless disinfected, should not be used for sowing the seed. Further measures for the treatment of this parasite will be furnished later by the Tobacco Division at Ottawa.

THE FARM

THE CANDLING OF EGGS.

As regards quality, an egg is one of the most difficult of food products. Its external appearance gives but little indication as to its fitness for food, and the contents cannot be sampled without destroying the fragile shell.

Fortunately an egg is semi-transparent when held before a light and permits, if carefully rotated, of even minor defects being seen. It is unnecessary to use an extremely powerful light, or a 15 candle power incandescent bulb are the sources of light most generally used in commercial work.

From time to time various appliances have been invented to facilitate the candling of eggs in quantities. These have proven serviceable for the simple detection of bad eggs, but have not been found satisfactory for the purpose of fine grading.

It is necessary therefore in commercial work as well as in private passed separately and with a quick turning movement before the light. In the large wholesale produce houses, where large quantities of eggs are handled it is remarkable how expert candlers become. They pick up regularly from two to three eggs in each hand and depending upon the season candle from 25 to 35 thirty-dozen cases per day.

The size of the air cell, the consistency of the albumen, the color and mobility of the yolk and the general transparency of the whole egg are the most generally recognized as determining the quality of the contents of an egg, just laid completely all the shell, but cooling takes place contraction occurs and the air space about the size of a five cent piece is formed. The yolk is only slightly perceptible and should swing readily in the albumen when the egg is turned around.

A stale or shrunken egg may be detected by the size of the air cell. The shell is porous and evaporation takes place whenever the egg is surrounded by a temperature above freezing point. Even in the low temperature of a cold storage house a certain amount of evaporation occurs. The higher the temperature and the more rapid the air circulation the greater the evaporation. Accompanying the evaporation a staleness of flavor soon develops, and if the egg is held in the presence of the moisture or packed in dirty filters it is apt to become musty.

As the egg grows staler the albumen tends to lose its consistency and often becomes quite watery. The yolk may also break down and in extreme cases mix with the albumen.

A bad egg or an egg which has been incubated may be readily detected from the fact that the clear transparent part has become dark and opaque. Many other forms and degrees of decomposition occur, but the above are those most commonly seen.

Many simple devices and appliances have been devised for the candling of eggs. Probably the simplest method is to place the egg between the thumb and the first finger and hold it between the eye and the light, using the free hand to shut off as much of the surrounding light as possible. A better method is to hold the egg between the end of the long paper or metal tube. Another simple means is to take place of cardboard or folded sheet of newspaper, cut a hole in it about an inch in diameter before which the egg should be passed with a gentle turning motion, between the eye and the light.

Perhaps the most serviceable of home made appliances may be constructed from an ordinary tin biscuit box which can be used in conjunction with a kerosene lamp or an electric bulb. The polished tin surface reflects the light and increases greatly the efficiency of the apparatus. A hole one and one-eighth inches in diameter should be cut in one side of the

March before the buds have begun to swell, wrapped in damp burlap and stored in a cellar where it will remain dormant. It is important that the scion wood be hard and well matured with the buds well ripened. Just the time growth starts in the spring is the proper time to do the graft limbs over three inches in diameter. The grafts should be set back as near the centre of the tree as possible, in order to keep the new head low and compact. Only those limbs that are to be grafted should be cut off, leaving the others to form the top during the first season before the scions have grown out.

Any farmer of average intelligence can, by following these general directions, place his orchard on a paying basis. The initial expense is slight and the profits are reasonably certain and prompt.

THE DAIRY

DAIRYING, FRUIT AND COLD STORAGE

(The Journal of Agriculture and Horticulture)

Without cold storage the dairying and fruit industries would be greatly handicapped, as such valuable produce would be destroyed by decay. Under such circumstances the cost of living would have mounted much higher than it has, and there would be little hope of establishing outside markets. Because these several lines of industry are closely allied they are all grouped under a single branch of the Dominion Department of Agriculture, that of the Dairy and Cold Storage Commissioner.

This Branch, under Mr. J. A. Radcliffe, has become a far-reaching organization extending from the milking sheds and the orchards even to the great markets of the United Kingdom. Through the Dairy Division encouragement is given farmers to increase the production of their herds, instructions are issued to teach the best methods of turning out fine butter and cheese. The Fruit Division seeks to enlighten growers on the condition of crops, to teach correct methods of production and marketing and to establish confidence in the value of Canadian fruit. The Cold Storage Service assists institutions that require refrigeration to erect proper warehouses; during warm months aid is given railways that carry fruit and dairy produce to maintain low temperatures in their cars; and help is provided to secure cool temperatures to export produce while on the ocean. The Extension of Markets Division exercises a close supervision over the handling of perishable farm produce in transit and, an opportunity offered, transportation companies are advised of needed improvements in their equipment. Besides other duties it keeps a careful register of the wholesale weekly prices of all manner of farm produce, and publishes these in the Annual Report of the Board.

The duties of this Branch of government service enumerated are so complete, but they serve to indicate the nature of its work which bears a close relation to the most of living. They are selected at more or less random from the Annual Report for the fiscal year which contains a large amount of useful information. This volume, which is made up of a general review by the Commissioner, and eight appendices, is available to those who apply for it to the Publications Branch, Department of Agriculture, Ottawa.

PRESERVATION OF MANURE

Professor F. H. King, in his book "Farmers of Forty Centuries," describes the methods used by the Chinese, Koreans and Japanese in collecting and preserving manure.

both solid and liquid, also the system of composting used in China where the manure is placed in glazed terracotta urns, some having a capacity of 4,000 pounds. In Japan cement-lined pits are used, the liquid excrement as well as the solid being carefully preserved. In China the compost piles are carefully plastered with a layer of earth mortar.

The results of the latest scientific investigations do not give us any better method than that practised by the Chinese for many centuries.

When Irish manure is taken directly to the field and distributed, the loss of plant of food is reduced to the minimum. The practice of allowing manure to accumulate in piles or otherwise on the ground, exposed to the action of rain or snow, is exceedingly wasteful, as the leaching removes a large part of the plant food.

FIG FEEDING NOT SIMPLE

The feeding of pigs is believed by most people to be the simplest thing in the world, and the bare idea of following a system of feeding upon scientific lines is considered the height of absurdity.

There is no animal on the farm which feeds so rapidly as the pig, and probably none which so imper- fectly masticates its food. This being the case it is necessary that the

food should be a digestible nature or, it should be so treated, that it will make the smallest possible de- (Continued on page eight.)

Attention to Horses' Teeth

There are many horses of all ages that are not thriving well, although consuming a reasonable amount of food, and their owners are at a loss to account for it, and often spend money in condition powders, stock food, etc., without result. The animals do not show symptoms of illness, but simply do not thrive, and have not the spirit of energy they should have. The cause in the majority of cases, will be found in the mouth, either there is faulty dentition or there are irregularities of the teeth. The subjects do not require medical treatment all that is needed is intelligent attention to the teeth.

We say "intelligent attention" as in many cases unskilled or ignorant interference does much more harm than good. It requires a man who thoroughly understands the anatomy of the mouth, and has the necessary instruments and skill to correct whatever is wrong.

J. M. NICHOLSON, D.V.D. VETERINARY DENTIST, 202 Kent St., Charlottetown, P.E.I. 3-26RPM17r.

It frequently happens that several trees in the orchard will be undesirable varieties. These may be top-worked into some profitable sort, if the trees are in a healthy condition. The cleft or wedge graft is commonly used in grafting large limbs. The scion wood, which consists of last year's growth, should be cut during

Light or medium loams certainly give best results with potatoes (said Mr. E. P. Berry, chief inspector of the horticultural branch of the Board of Agriculture, in a recent lecture), but under any conditions the soils have to be well worked.

Applications of lime as a means of neutralizing the soil and reducing acidity are necessary. It is not always wise to lome the soil immediately before planting; it is better that the lime should be applied for a preceding crop.

The potato is a sun-loving plant, and it is a mistake to expect crops when planting is done under fruit trees. Plenty of sun and air are essential for success; and wide planting is undoubtedly a great benefit to the crop. It is not safe to lay down hard and fast rules, but it may safely be advised that two feet should be allowed between rows for earlies and three feet for late varieties.

Two well known potato growers, who have been cultivating many hundreds of acres for thirty years past, have agreed to the efficacy of the following as the best compound fertilizer: 18 to 20 tons stable manure, together with 6 cwt. sulphate ammonia, 6 cwt. superphosphate, 35 percent solution; 2 cwt. sulphate of potash, 50 percent potash; one cwt. guano.

When lifting sometimes one should take care to select their seed from plants bearing uniform size tubers. Many varieties of potatoes are deteriorating because immature tubers are used for seed. The practice of putting potatoes, rubbing off the shoots, and keeping them for months is bound to weaken the seed.

When lifting, something it will be found that the seed potato is entirely decayed, and sometimes almost as fresh as when planted. Best results are usually found when the seed has decayed. Cutting a small piece off the end just before planting encourages decomposition.

In the general way it is best to plant the whole tubers though instances are sometimes found when heat results arise from cut sets. This is attributed to the fact of cutting having reduced the number of eyes.

POINTS IN HEN FEEDING

Some of the most experienced poultry breeders claim that the best results can be obtained by feeding mash. The mash is prepared by mixing equal parts of corn and wheat, and having access to it at all times, as this allows a more equal distribution of the food.

A slight feed of moist mash about three times a week in addition to this dry mash is good, and it is essential in preparing this mash that the mixing process should not be slighted. A little longer mixing will result in a much better mash and prevent the using of an excess of water, which tends to make the mixture pasty. By mixing green cut bone with the mash in the quantity hereinafter given a food will be obtained that is unequalled for laying hens.

Probably the best way to feed this ration is to give the flock a quantity which will consume entire in from eight to ten minutes. This should be given them three times a week and the amount usually runs so that each fowl will receive on an average of one ounce at each feeding or every two days. In other words about one-half ounce of green cut bone per fowl per day is considered the right amount.

It will be noticed that the laying hen will eat fully twice as much as the non-layer. This being the case she should have proper food, which will digest without trouble and produce the nourishment necessary to a fowl in which we are looking for a large production of eggs.

The mistake is often made of throwing wet mash or green bone around anywhere in the belief that the fowls will search around and find it. Too much care cannot be exercised in keeping this class of food clean, as when it is thrown on the litter all the dirt, etc., which is not best for the fowls to eat and which they would not touch under any other circumstances is taken by them unconsciously by reason of adhering to food.

CHANGE THE TOPS OF POOR TREES

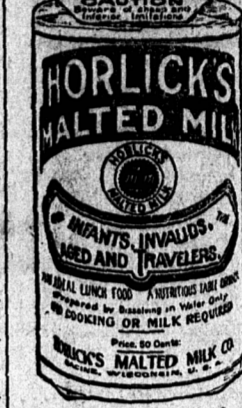
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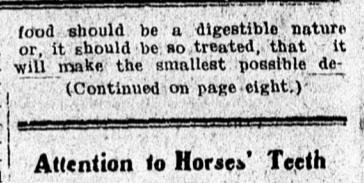
MAKING HENS PAY

It is simply a matter of making them lay—and making them lay is mostly a matter of keeping them in good health and keeping up their appetites. International Poultry Food is a mixture of herbs, the very needs of their system, and wards off disease, and by its action on the egg-producing organs makes them lay it is absolutely guaranteed to increase the production of eggs. Try feeding your hen International Poultry Food and you will be surprised at what they will do for you.

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We have just got out a very complete "Poultry Guide" which tells pretty nearly everything there is to know about raising poultry. We would like to send it to you if you will write for it—absolutely free.

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