

THE MAGAZINE GUARDIAN

Teachers, Parents, Pupils, Farmers, Dairymen, Horsemen

TO THE FARMER

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.

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.

THE SCHOOL AND THE HOME

FOR FOOD PRESERVATION

Sun Drying

The drying of fruits and vegetables in the sun is a simple process if they have been prepared properly. In its simplest form such drying consists in spreading the freshly prepared slices or pieces on sheets of paper, or if there is danger of the product's sticking, spreading on old pieces of muslin laid down with stones.

The Extension Department of the University of Wisconsin has issued the following instructions for drying fruits and vegetables.

1.—Use good material. The food should be as that selected for immediate table use.

2.—Work rapidly. All foods are vegetables should be dried as quickly as is consistent with good results.

3.—Slice large foods to get more drying surface. Small fruits, vegetables, some berries, mature beans and peas, and small onions may be dried whole.

4.—Be sure food dries evenly. Food should be stirred frequently during the drying process. This prevents overheating and the growth of molds.

5.—Prevent dampness. Do not allow food to become damp during the drying process. It is better to bring food which is being sun dried indoors at night.

6.—"Conditioning." All food should be thoroughly dried before it is stored. It is best to allow it to remain in a dry place for several days, turning it frequently in the meantime; this permits more complete and effective drying.

7.—Storing dried food. Store dry food in paper bags, boxes, tin containers, such as pails, and cracker boxes. These should be kept in a dry place free from insects.

8.—Save the cooking liquid. Soak all dried food twenty-four hours before cooking. Cook in the water in which it has been soaked; allow this to evaporate to small bulk and serve with the fruit or vegetable or use in soups or sauces.

How to Dry Vegetables

Corn, Method 1.—Immediately after picking and husking place the ears in unsalted, boiling water for five minutes to set the starch and "milk"; plunge into cold water; drain or wipe with clean towels; cut kernels from cob being careful not to cut too close to the cob. Use sharp knife. Dry by any of the suggested methods, preferably in the oven.

Corn, Method 2.—Husk freshly picked corn, remove tips of kernels with sharp knife or cabbage slicer; extract pulp or "milk" by scraping with a blunt knife; mix thoroughly; partially dry by placing corn pulp in a pan over hot water until mixture thickens. Spread on clean dripping pans or platters; stir occasionally while drying. When thoroughly dry, "condition" and pack.

String Beans, Method 1.—Directly after picking, string the beans, wash in cold water, drain on soft paper or towels; cut in one-inch pieces or

slice lengthwise. Dry by artificial heat.

String Beans, Method 2.—Directly after picking, string and wash beans; plunge immediately into boiling water for five minutes; then plunge into cold water; drain on soft paper or towels; cut into desired form—either one-inch pieces of thin slices cut lengthwise—and dry by artificial heat.

If beans have become too old to use as string beans, allow them to ripen; then shell and store.

Cauliflower.—Clean divide in small bunches, blanch six minutes, and dry two or three hours at 110 degrees to 14 degrees Fahrenheit. Cauliflower will turn very dark when drying, but will retain part of the color in soaking and cooking. Dried cauliflower is especially good in soups and omelets.

Brussels sprouts may be handled in a similar way, but add a pinch of soda to the blanching water.

Pumpkins and Squash.—(a) Select sound, well-grown specimens. Cut in strips; peel these; remove all seeds and the soft part surrounding them. Cut strips into smaller bits not over quarter-inch thick and two inches long, and dry.

(b) Pare and cut into about half-inch strips and blanch three minutes. Remove surface moisture and dry slowly from three to four hours, raising temperature from 110 degrees to 140 degrees Fahrenheit.

Herbs.—Celery tops, parsley, mint, sage, and herbs of all kinds need not be blanched, but should be washed well and dried in the sun or in the drier. These are good for flavoring soups, purees, gravies, omelets, etc.

Peas.—(a) Shell and spread on trays and dry. (b) Shell full-grown peas with non-edible pod, blanch the peas from three to five minutes, remove surplus moisture, spread in single layer on trays and dry for three or three-and-a-half hours. Begin drying at 110 degrees Fahrenheit, raising temperature very slowly in about one-and-a-half hours to 145 degrees Fahrenheit. Continue drying one-and-a-half or two hours at 145 degrees Fahrenheit.

(c) Shell full-grown peas, passing through a meat grinder, spread on trays and dry. Whole peas take longer to dry, but when cooked they resemble fresh peas. The ground peas dry more quickly but make a product which can be used successfully only in the preparation of soup or puree.

(d) When drying the very young and tender sugar peas, use the pod also. Wash and cut in quarter-inch pieces. Blanch in boiling water six minutes. Remove surplus moisture and dry the same length of time and at the same temperature as string beans. It is not necessary to use soda when blanching peas.

ABOUT TOMATOES

Tomatoes are delicious scrambled, scalloped, boiled, baked, fried, stewed, deviled, preserved, or as a salad, a pickle or a catsup. To peel tomatoes, place them in a wire basket, plunge into hot water for a moment, then into cold, when the skins will easily come off. A French way to fry tomatoes is to put a tablespoonful of butter into a saucepan and stir a spoonful of flour into this allowing it to brown; put in sliced tomatoes which have been seasoned with salt and dipped in beaten egg and then in cracker crumbs. The addition of a little sweet green corn, freshly cut from the cob, is an improvement in stewed tomatoes.

Scrambled Tomatoes.—Stew tomatoes seasoned with salt, pepper and butter, then beat three eggs and turn them into the tomatoes, stirring one way for about two minutes.

Baked Tomatoes.—Select half a dozen firm and smooth; cut a slice from the end of each and take out the inside. Mix together one-half cupful each of finely-minced cold boiled ham and stale breadcrumbs, to which are added some chopped parsley, butter, salt and pepper. Fill the tomatoes with this mixture, and sprinkle over the top grated breadcrumbs. Put the tomatoes in a baking pan, pour over them a tablespoonful of melted butter and bake for half an hour. Serve hot.

Fried Tomatoes.—One pound of small, even-sized tomatoes, one tablespoonful of butter, two small onions, salt and pepper, parsley. Wipe the tomatoes with a cloth and cut into slices. Peel and chop up the onions fine. Melt the butter in a frying pan; when hot, put in the onions and fry to a golden brown color. Be careful not to let them get too brown, else the flavor of the onions will be spoiled. Place in the tomatoes and fry them over a brisk fire—they will take about ten minutes to cook. Season with salt and a little cayenne pepper. Dish up on a hot dish, and sprinkle a little finely-chopped parsley over the top.

Cream Tomato.—One pint of tomatoes, heated and seasoned with salt, sugar and butter, and thickened slightly with flour. Just before turning on

to slices of hot buttered toast add one cupful of cream (the richer the better), into which has been stirred a small pinch of soda. Serve immediately. This makes a nice supper dish.—Ex.

RECIPIES

Cucumber Pickles

Wipe one hundred small cucumbers and one quart of small peppers. Make a brine by boiling eight quarts water and one quart of salt five minutes. Pour over cucumbers and peppers and let stand overnight. In the morning drain and cover with a new brine, using the same proportions. Repeat twice, drain and wash in cold water. Place cucumbers and peppers in crock with twelve peppercorns, and twelve whole cloves tied in a muslin bag. Cover with boiling vinegar.

Green Tomato Pickle

Prepare 4 quarts of green tomatoes, 4 small onions and 4 green peppers. Chop fine, put into enamel pan, sprinkle well with salt and let stand overnight. In the morning drain off the brine from the vegetables. In a separate vessel put: 1 quart of vinegar, 1 level tablespoonful of black pepper, 1 level tablespoonful of mustard seed, 1 level tablespoonful of celery seed, 1 level tablespoonful of cloves, 1 level tablespoonful of allspice, 1 level tablespoonful of cinnamon, 1/2 cup of salt. Bring to a boil and add vegetables. Cook 20 minutes after the pickle begins to boil. Fill jars and seal while hot.

Stuffed Cabbage

Select a hard head of cabbage, cut away the outside leaves, then soak in salt water to dislodge any insects that may have been lurking within. Drain again and cool, put into ice water, then dry between folds of cloth, being careful not to destroy the shape of the head. Carefully scoop out the centre of the head and fill with a forcement of ham and veal, a quarter of a pound of each pounded to a pulp. Season meat with salt, pepper, parsley, nutmeg, chipped green pepper and bind with the yolks of two eggs. Tie neatly in a cloth, cover with boiling water and cook until the liquid is reduced to a glaze. Remove the cabbage and stand in a hot serving dish. Serve cut in a wedge-shaped pieces.

COTTAGE CHEESE

Skim milk can be made into cottage cheese which is a wholesome and nutritious food. Sour the skim milk, then set the container in a pan of water 100 deg. F. or that feels warm to the hand, leave there 20 minutes, stirring occasionally. Then pour into a cheese cloth bag or salt sack and hang up to drain 5 to 10 minutes, work the curds until they become fine in grain. The addition of cream improves the flavor. Salt and flavor to taste. Skim milk is not always used to its full value as the fat only has been removed. The other valuable nutrients are left and these are the tissue-building nutrients and so can to a large extent replace meat. In cottage cheese, these nutrients are brought into a more concentrated form.—North Dakota Agricultural College.

FARM

ORCHARD PACKING TABLE

The most convenient packing bench for orchard use is made on the same general plan as the ordinary stretcher couch or like an enlarged sawhorse, with bolts where the supports cross each other. The upper points of the supports are joined by a 2 by 2 strip as long as the required table. On these pieces of timber a sheeting of stout burlap or canvas is fastened. The end supports are braced with light pieces below, against end pressure, but in such a way as not to interfere with the bench closing for convenient transportation from one part of the orchard to the other. A slight improvement is to have the strip reaching across the end and at the middle point. The table joining the 2 by 2 pieces at each burlap is then placed over these strips, and instead of being nailed securely to the 2 by 2 pieces is kept in place by a series of eyelet holes fitting over buttons on each side. By this arrangement the burlap can be more easily slipped off the frame during rainstorms and can be dried quite easily, and of course will last much longer.

GETTING THE BARREL READY

The barrel is prepared for packing as follows: It is delivered by the cooper with both heads in but no nail is driven anywhere. The poorer head, if there is a difference between

the two heads, is selected for the face. The quarter hoops should be forced down firmly, nailed with four nails, and clinched smoothly on the inside. If they are not clinched very smooth, they are apt to injure the apples seriously in the process of packing and pressing. Six nails should be sufficient to nail the end hoop of the barrel. The head liners are placed at the right angles to the grain of the head so as to catch all the pieces that form the head. Four or five nails are quite sufficient in a liner.

If stencilling is done in the orchard the face should now be stencilled with the required marks. If the stencilling is done in the orchard, then all the particulars of grade, variety, packer, etc., should be placed, with a common lead pencil, not too prominently, near the chime. The barrel is now placed on the racking plank, face end down. If pulp or paper heads are used (and they are always desirable) one is now placed in the barrel and the face arranged upon it.

Sometimes a cow is difficult to milk because the opening in the teat seems too small. Get a milk tube, sterilize it and press into the opening so as to draw off the milk and stretch the orifice until it is large enough for a full flow. Sometimes a cow has a hard lump in the udder. Rub it every third day with a mixture of two drams of iodine in two ounces of lard until the lump disappears. Often when a cow is hard to milk or holds it up she will come all right from feeding a little bran or grain, as this diverts her attention from the nervous action which is the source of the trouble. When the calf comes, care in milking will prevent the milk fever. In case of attack pump air into the udder with a bicycle pump.

GRAIN FOR CALVES

When skim milk is substituted for whole milk in feeding the calf, something needs to be added to replace the butter fat removed in the cream. Corn can be used to good advantage. It is better cracked than ground fine. Bran is good and ground oats are splendid. A mixture is better than just one of them. The calf will begin to eat feed when two to three weeks old, and should have access to it. The best way to feed grain is dry and care should be taken not to allow any of it to remain in the corners of the feeding box, as it will sour and may cause digestive troubles. Boiled ground flax seed is also used with skim milk to make up for the fat removed. North Dakota Experiment Station.

POULTRY

A Wheatless Egg-laying Ration

With wheat so high, poultrymen will be interested to learn that excellent egg-laying results have been secured with a wheatless ration in some recent experiments carried on in the States. Thirty Leghorn pullets to which this ration has been fed for 14 weeks produced an average of 147.3 eggs per hen for the pullet year. This compares favorably with egg yields secured on rations containing wheat and therefore more expensive. This pen, moreover, during the first sixteen weeks of its second year has averaged 28.5 eggs per hen, 17.5 eggs per hen being produced in March.

The same wheatless ration has been fed since last November to a pen of Buff Orpington pullets which have laid 53 eggs per hen in 20 weeks and hold the highest egg record of any of the large feeding pens of pullets at the farm this year. Two other pens, however, are less than 1 egg per hen behind this pen.

The ration used was as follows: Scratch mixture—2 pounds cracked corn, 1 pound oats, 3 pounds corn meal, 1 pound beef scrap. The scratch mixture was fed sparingly so that the hens ate about equal parts of this mixture and of the dry mash. The total grain consumption of feed for the year was 52 pounds, of which 26 pounds was scratch mixture. Throughout the year it took 4.6 pounds of feed to produce a dozen eggs.

This scratch mixture, with wheat \$2.57, cracked corn \$1.35, and oats 70 cents per bushel, is 49 cents per hundred pounds cheaper than the regular mixture of equal parts cracked corn, wheat and oats. Another mash which is slightly cheaper than this one, is made of 4 per cent, each bran and middlings, 26 per cent, beef scrap and 66 per cent, corn meal.

If the wheat is omitted from the ration it is very essential to feed a considerable proportion of beef scrap in the mash, but with present prices, beef scrap is one of the cheapest poultry

try feeds, considering its high protein content.

These experiments prove that wheat is not essential in an egg-laying ration and that excellent results can be secured by using corn and oats as a scratch mixture provided this is fed with a good mash containing 25 per cent, beef scrap.

Leghorns Produce Eggs at Less Cost

Leghorns produce eggs cheaper than hens of the general-purpose breeds—Plymouth Rocks, Wyandottes, Rhode Island Reds and Orpingtons. This fact, which confirms the belief and experience of commercial poultry farmers, was one of the results obtained in a rather extensive feeding test recently reported by poultrymen of the United States Department of Agriculture. Because they lay as many or more eggs, eat only about 55 pounds of feed per head as compared with 70 to 85 pounds eaten by the general-purpose breeds, and because their egg yield very materially exceeds that of general-purpose breeds during their second and third laying years, Leghorns, the specialists say, undoubtedly are more profitable to keep for the production of eggs only.

In this test the feed cost of a dozen eggs for one of the Leghorn pens was 7.34 cents in 1913, while the average cost of all the pens of the general-purpose breeds was 10.6 cents. In 1914 the feed cost of a dozen eggs for the same pen of Leghorns was 8.7 cents as against an average cost of 15.1 cents for the second laying year of the general-purpose pens. During their third laying year the cost of a dozen eggs was 8.8 cents compared to 18.6 cents for the general-purpose fowls. The total value of eggs per hen over feed cost in the Leghorn pen for three years was \$6.84 against \$4.30 for the general-purpose hens. The highest egg production obtained in any of the feeding experiments up to 1915 was by a pen of Leghorns which laid 157.6 eggs per hen at a feed cost of 6.7 cents a dozen.

The Leghorns produce smaller eggs than the general-purpose breeds. The average weight of the eggs of a pen of Leghorns during the first laying years was 1.42 pounds per dozen as against 1.53 to 1.58 pounds for the other pens. However, Leghorns laying eggs weighing 1.50 pounds per dozen or even more, the specialists say, have been selected and bred by many poultrymen. An examination in May, 1915, of 500 eggs from 5 Leghorn pens showed that 31 per cent weighed more than 2 ounces apiece, or 1.50 pounds to the dozen.

The value per dozen of the eggs produced by the Leghorns was four to 8 cents less each year than the eggs of general-purpose hens. This difference is due to the fact that the general-purpose breeds are better winter layers than the Leghorns, while the latter give a higher production in the spring and summer. Very few Leghorns become broody, which probably materially affects their egg yield as compared with the general-purpose breeds. Better fertility in the eggs, especially with stock confined to the yards, is more often secured with Leghorns than with the general-purpose or any of the heavier broods.

TIT-BITS FOR THE POULTRY-KEEPER

Keep every early-hatched pullet for egg production next fall and winter, when eggs will be high.

Late hatching is permissible this year if the late-hatched chicks are used to increase the country's meat supply.

Late-hatched pullets will not make early winter layers unless given exceptionally good care.

Keep all hens until about September 1. It does not pay to sell laying hens in the spring or early summer, for their eggs are of more value than the few extra cents per pound obtained at this time.

Do not sell early-hatched cockerels as broilers under two or three pounds in weight.

Sell all old roosters, so that every egg produced this summer will be an infertile egg. Doing this one thing will save thousands of dozens of eggs, usually spoiled by hot weather because they are fertile.

Caponize late-hatched cockerels to put on the market next winter, when meat will be scarce.

Take good care of the summer eggs. See that they are gathered daily from clean nests, and kept in a cool, sweet cellar until sold. Sell at least twice a week in hot weather, and insist that they are bought on a quality basis. Know that every egg you sell is a good egg.

The orchard makes an ideal place to run chicks and the chicks will help the orchard by keeping down insect pests.

Never leave dead chicks or eggs from the incubators containing chicks lying around. You are simply inviting an invitation to dinner—to all the

crows, skunks, rats and prowling cats in the neighborhood and you may be sure that it will be readily accepted. The step from dead chicks to live ones is a very short one and you will have only yourself to blame for the trouble which will befall you.

The mighty mite will soon be at work. Don't let him get ahead of you. Paint around the roosts and nest boxes with a solution made up of 1 part crude carbolic acid or cresol to 8 parts coal oil.

Raise as many chickens this year as possible, but do not try to keep two where one should be. One well raised is worth more than two stunted.

After harvest get the poultry buildings in shape for winter use. Many farm poultry houses need remodeling, and a few dollars spent in doing this will be returned in extra eggs next fall and winter.

For best results pullets will have to be placed in the laying house early in the fall and not disturbed thereafter, so do not put off repairing their houses.

The soil of the poultry runs should be kept sweet by top dressing with lime and plowing or spading in deeply. Stir and crop the soil frequently if always pays.

DAIRY

CREAM IS STRINGY

Bad odors and stringiness are produced from a variety of causes. Impure water is one of these; weeds another. Different kinds of food, even wholesome foods, often cause undesirable flavors. Cows too far gone toward freshening is a frequent cause of viscosity and odors; also disease, especially of the udder, such as garget mammites or tuberculosis. We cannot tell the cause without a careful examination. One cow may cause the whole trouble. Carefully examine each cow's milk separately by taking samples and setting each in a glass or teacup, and allowing to stand in a warm place until sour, at the same time noting the smell of each daily. By carefully following up this plan you will soon find out the cause. Then remove the cause and you have the cure.

VARIATION IN CREAM TESTS.

Everyone familiar with the farm separator must acknowledge that it is one of the most highly perfected pieces of farm machinery in use. But it is expecting too much from even such a perfect machine to think that the same tests will result week after week and season after season, when there are so many variable conditions which will cause differences in richness of cream.

Aside from any differences that will be caused by change in cream screw or skim milk outlet, from wear or mechanical adjustment, any one of the following factors will influence the resulting test from a comparatively low to high percentage.

Variation of the temperature of the milk when separated.

Variation in the test of milk.

Changing speed of bowl.

Rate of inflow of milk or warm water used in flushing the bowl.

Neglect to keep separator bowl and working parts thoroughly clean.

With these many influences continually changing to a greater or less degree, constant tests are more to be feared as results of inaccurate work than are varying tests.—Colorado Agricultural College.

PIGS

PARALYSIS IN HOGS

Azoturia of the horse, characterized by sudden paralysis of one hind leg or both, invariably is preceded by heavy feeding on a protein-rich ration during the spell of idleness. Active exercise, and light laxative rations when there is no work for the horse to do, successfully prevents azoturia. Like measures of management are equally necessary for the welfare of other animals.

Understanding the causes of azoturia of the horse and knowing preventive measures, we are in a position to view paralysis of hogs in a new light. It is now believed that one form of paralysis in these animals is similar in most respects to azoturia of the horse—that "going down behind" in heavy hogs and especially in sows that are nursing pigs.

It is commonly believed by farmers that such attacks of paralysis are caused by kidney worms. Postmortem examinations have proved that this idea is erroneous. Most of the paralyzed show no trace of kidney worms while such worms often are found in apparently healthy

swine. In some cases deep-seated abscesses are the cause, but in perhaps a majority of instances the causes are prolonged over-feeding with protein-rich rations, lack of exercise and constipation. The latter symptom is especially suggestive. It is seen also in hogs that are stuffed with corn and given little exercise and no laxative feed. It must be added that rickets in corn-fed hogs may have much to do with loss of power of the hind legs, and that the fat sow bred from highly fitted ancestry is most susceptible to paralysis, aggravated into actuality by the drain and strain of nursing pigs. Close observation has shown conclusively that constipation particularly and excess of protein in the ration of an under-exercised hog tend to induce paralysis. This belief is further corroborated by the fact that prompt purging with epsom salts followed by feeding on thin slop containing epsom salts or raw linseed oil, often leads to speedy recovery.

THRIFTY PIGS AFTER WEANING.

There may be several causes for pigs not thriving after weaning, but I believe that the most common cause is over-feeding with foods that the too strong for the delicate digestive apparatus of the little pig. Pigs that are gradually worked off from their dam by being fed in a trough by themselves as soon as they are old enough to eat, will scarcely ever cease to thrive unless they are partially starved.

Nothing will take the place of milk for the little chub. An addition of a small amount of wheat middlings or sifted old chop with the coarser hulls taken out, will also be found excellent where milk cannot be had in sufficient quantities. Oil cake meal or linseed meal in small quantities are good substitutes. In no case should such hot foods as barley or wheat or corn be fed to little pigs just after weaning even if fed so as to cause no bad effects as far as stunting is concerned, their tendency is too much toward fat, at a time when growth is what is desired.

If the lighter foods are fed until the pigs are four months old there is then little danger of injuring the digestion and stunting the pig. As a necessary precaution, a mixture of sulphur, salt and charcoal or soft coal should be in a convenient place for the pigs to help themselves at all times. This will correct the acidity of the stomach and keep the pigs thriving.

BERKSHIRES

The Berkshire has come to stay. He is the handsomest hog that ever lived; he is a friend you like to introduce to your acquaintances when they call; he has great natural intelligence and in consequence is docile, easily induced to do as you would have him. The females are as prolific as any good mothers as a rule, raising a greater percentage of litters farrowed than other breeds, largely by their docility. The Berkshire is the best hog in the world, the purest bred hog living and the oldest, purebred breed. Why wonder at their popularity or why wonder at all their influence for the improvement of all other breeds when crossed upon them. Their heredity insures all claims made for them by their most ardent admirers.—J. E. Watson, in Berkshire World.

Curing Skin Troubles

So many people, both men and women, suffer from skin troubles, such as eczema, blotches, pimples and irritation that a word of advice is necessary. It is a great mistake for such sufferers and those with bad complexions to smear themselves with greasy ointments. Often they could not do anything worse, for the grease clogs the pores of the troubled skin and their condition actually becomes worse.

When there are pimples or eruptions, or an irritating or itching rash, a soothing boracic solution may help to allay the irritation, but of course that does not cure the trouble. Skin complaints come from impure condition of the blood and will persist until the blood is thoroughly purified. It is well known that Dr. Williams' Pink Pills have effected the best results in many forms of skin disorders. This is due to the fact that these pills make new, rich blood, and that this new blood attacks the impurities that give rise to skin troubles and disperses them; so that Dr. Williams' Pink Pills cure skin disorders from within the system—the only sure way.

It should be added that Dr. Williams' Pink Pills have a beneficial effect upon the general health. They increase the appetite and energy and cure diseases that arise from impure blood. You can get these pills through any medicine dealer, or by mail, for \$2.50 a box or six boxes for \$2.50 from The Dr. Williams Medicine Co., Brockville, Ont.