

Soils and Crops

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Our Own Type Berkshires

It has been claimed that a tendency to lengthening side is noticeable in the Berkshire breed in Canada within the last few years. Commenting on the bacon class awards at the Canadian National Exhibition, an agricultural writer states that the Berkshire "has shown very satisfactory improvement in the past few years, the heavy shoulder and ham giving way to smoother quarters with increased length between, making them more suitable for the production of Wilshire sides."

The comment brings right into the foreground the difficulty which many farmers face in the Berkshire breed. They scarcely understand sufficiently that the breed lends itself to two types, almost opposite in character.

"In the United States," says Professor G. E. Day in his work, "Productive Swine Husbandry," "it is only natural to expect them to conform to the fat or lard type and some breeders have gone rather to the extreme in breeding for fine bone, smoothness and quality, and neglecting size and length." In Canada the tendency is to select for a lengthy, strong-boned type, which looks somewhat coarse and heavy when compared with the extremely fine type, but which is a first class farmer's hog. The demand for the bacon type in Canada and competition with the bacon breeds have had an influence in bringing about this modification. The Berkshire is better suited for supplying the market demand for fat hogs than it is for producing bacon hogs. Where hocks, shoulders and loins are the main requirements the Berkshire fits in exceptionally well, but for the export bacon trade in Wilshire sides it has scarcely enough length of side and has too heavy a neck and shoulders.

The fat type of Berkshire is utterly unfitted for the Dominion bacon trade, which depends so largely for its outlet in Great Britain. This warning about choosing the proper type within the Berkshire breed is probably most applicable to the Canadian West where the breed has attained popularity because it does not "suffer" under prairie heat. Even within this sub-division of the breed producers should pay strict attention to getting the right conformation. It is the common experience of buyers to-day that, as Professor Day has stated it in general, there is "scarcely enough length of side and too heavy a neck and shoulders."

It may be with the growing demand for bacon breeds, that it would be ad-

visable for the Canadian Berkshire Breeders' Association to draw up what might be termed the requirements of a distinctly Canadian-bred Berkshire. This might differ from the standard set in Great Britain; presumably it would differ very considerably from the actual standard of the breed in the United States, which is the outcome of their special and peculiar catering to the fat, lard market.

Useful Poultry Litter

We once had an earth floor poultry house that was a little too low and inclined to be damp. There was no way to raise the level by hauling sand so we covered the floor with loose corn fodder to a depth of about six inches. Over the fodder we placed straw. The tough fodder formed a good foundation for the lighter straw. During the winter fresh straw was occasionally added as the old litter became packed down. The hens in the house were thrifty and laid very well. This is not as good as a cement or board floor, but worked out all right on an earth floor where an unusual depth of litter was needed to build it up.

Straw is the best litter we have ever used. About six inches can be placed on the floor in the fall. The hens gradually break it up and pack it down. A litter that is not replenished becomes almost as hard as a floor and the scratch grain is not hidden. The purpose of litter is to make birds exercise by scratching. So new litter must be placed on the old to furnish that loose top layer that easily hides the grain. When litter becomes damp and tough it must be removed.

The broken hay from a clover huler sometimes can be used for scratching litter. Dry leaves are useful in small poultry houses if an abundance of leaves can be obtained near at hand. The leaves break up very easily and are not as good as wheat or oat straw.

Shredded corn fodder is also used for litter. It absorbs moisture and does not break up easily, thus lasting a long time. On poultry farms where only corn is raised, the use of shredded fodder saves the purchase of straw. If straw must be purchased for the poultry flocks and storage room is limited, it pays to buy baled straw. This saves time in replenishing the straw litter in the laying houses. In some sections poor grades of hay can be used for poultry litter. We find that the important point is to have a mixture that is dry and clean and hides the grain. The material produced at home is often the cheapest and in place of straw the other materials will give fair satisfaction.

Poultry

To-day I asked one of my friends why he was so strong for the incubator as a help in poultry raising. His argument is so plain that it will bear repetition. He says, "I haven't anything against the old hen as a chick hatcher and raiser, except that she doesn't want to sit when I want her, and the chicks she raises usually come pretty high."

The line of reasoning runs something like this: This particular farmer keeps a flock of about 150 hens each year and, by the way, this is the number in the average farm flock in this section. He culls each fall until he has about sixty old hens to use for breeders, while he plans on raising ninety pullets each season for his winter layers. With his White Leghorns, it takes about six months to get them matured enough to lay, which means that if they are to start laying in early winter, they must be hatched by the middle of April.

His past records show him that he must set five eggs for each pullet raised. Some eggs will be infertile, chicks will die and half of the young stuff will be cockers. He must set 450 eggs to make sure of getting ninety pullets, and these must be set the last week in March. If each hen were to sit on fifteen eggs, this means that thirty hens would be required to incubate the 450 eggs; and bearing in mind that there are only sixty hens in the flock, it is very unlikely that half of them would want to sit by March 20. In fact, so unlikely that it never has been so.

In his case, the artificial hen is the only one that will incubate the number of eggs he wants to set and bring them off in time to give the chicks good growth during the summer. And this is entirely aside from the fact that the incubator gives him chicks of uniform age. In his particular case, the incubator makes it possible for him to maintain a high-producing flock and continue it in production from year to year.

Live Stock Betterment

A statement issued by the Live Stock Branch of the Dominion Department of Agriculture shows that since the adoption in 1913 of the policy of distributing pure-bred bulls in newly settled districts and backward sections of the different provinces, in all 3,408 bulls have been so distributed, an average of 378.6 for each of the nine years. Of the total, Alberta has received 755, Saskatchewan 782, Manitoba 333, Quebec 928, Ontario 277, the

Holiday Cakes from Scotland, England and Mexico.

By NELLIE RYDER GATES.

When the holiday season comes around housewives all over Christendom don their aprons and go into the kitchen to bake cakes after their own favorite recipes. For variety's sake, Christmas for us to try some of the tried and true recipes of our sister cooks on the other side of the world.

England and Scotland are famous for their shortbreads. Legend tells us that these delectable little concoctions were brought into Scotland by Queen Mary from one of her visits to France. The French name for them is petits gateaux, but as near as the rough Scotch tongue could come to this is "petticoat tails," and petticoat tails they have been ever since. At Christmas and New Year's they are made into round cakes and decorated with mottoes which are put on with little candies, candied fruit peels or icing forced through a tube.

"Petticoat Tails"

One of the most popular recipes calls for a pound of flour sifted with a teaspoonful of baking powder and half a teaspoonful of salt. Three-fourths of a cupful of sugar and a cupful of butter are creamed together very carefully, then worked into the flour. When the dough is smooth and well mixed it is divided into two round cakes, pinched around the edges with the fingers, perforated with a fork and baked in a moderately hot oven till done. It is served whole and broken up with the fingers into pieces.

Gingerbread Cakes

Hard gingerbread is used for Christmas cakes in many countries. A good English recipe says to sift together four cupfuls of flour, one of sugar, a tablespoonful of ginger and a teaspoonful of salt. Rub in a half pound of butter and just enough molasses to bind them all together. Let it stand overnight in a cold place, and the next day roll very thin, cut in fancy shapes and bake.

"Azucarillo"

The Mexicans make a delicious little cake they call azucarillo. They cream together a quarter of a cupful of butter and half a cupful of powdered sugar. Into this pour gradually a fourth of a cupful of milk. Stir in a scant cupful of flour, flavor with vanilla, and spread very thinly on the bottom of a baking pan. Sprinkle with chopped blanched almonds, crease into squares and bake a delicate brown. When done cut apart and roll up into little rolls.

Dress Up Christmas Gifts With a Bit of Green.

Many legends surround the use of evergreens at Christmas time. St. Winifred, after hearing a huge oak which had been the object of druid worship, saw behind the fallen oak, unharmed, a young fir tree pointing a green sprig toward the stars. Turning, he spoke to the people:

"This little tree, young child of the forest, shall be your holy tree to-night. It is the word of peace, for your houses are built of the fir. It is the sign of an endless life, for its leaves are ever green. See how it points to heaven. Let this be called the tree of the Christmas Child. Cut down the tree, not in the wilderness, but in your own homes. There it will shelter you from deeds of blood, but loving gifts and rites of kindness."

The custom is also explained as being derived from the ancient Egyptian custom of decking the houses at the time of the winter solstice, with branches of the date palm, the symbol

of life triumphant over death and therefore perennial life in the renewal of each bounteous year.

With hardly an exception, every European country has some myth or legend connected with the use of greens. With such a wealth of legendary lore behind the custom, it is not surprising that a bit of green has come to be looked upon as an essential part of the Christmas program. Therefore, the homeliest and humblest of gifts are dressed up with spoils from the woods or garden.

In addition to the spruce or fir trees, pines of various sorts, juniper, cedar and hemlocks and ground pine are all used, as well as such berries as holly, hawthorn, wintergreen, bayberries and mistletoe.

Boxes or packages look very "Christmassy" with a spray of berries thrust through the ribbon or string with which they are tied. If berries are lacking, a small spray of spruce, pine or hemlock can be used with good effect.

A pretty table decoration representing a miniature landscape can be made with clumps of moss, tiny trees and vines. Arranged on a shallow tray it can be dampened and kept fresh for weeks.

Christmas Don't's.

Don't leave the cost-mark on presents.

Don't let money dominate your Christmas giving.

Don't let Christmas giving deteriorate into a trade.

Don't embarrass yourself by giving more than you can afford.

Don't try to pay debts or return obligations in your Christmas giving.

Don't give trashy things. Many an attic could tell strange stories about Christmas presents.

Don't make presents which your friends will not know what to do with, and which would merely encumber the home.

Don't give because others expect you to. Give because you love to. If you cannot send your heart with the gift, keep the gift.

Don't give too bulky articles to people who live in small quarters, unless you know that they need the particular things you send them. Don't wait until the last minute to buy your presents, and then, for lack of time to make proper selections, give what your better judgment condemns.

Don't decide to abstain from giving just because you cannot afford expensive presents. The thoughtfulness of your gift, the interest you take in those to whom you give, are the principal things. The intrinsic value of your gift counts very little.

Don't give things because they are cheap and make a big show for the money. As a rule it is a dangerous thing to pick up a lot of all sorts of things at bargain sales for Christmas presents. If you do, there is always the temptation to make inappropriate gifts. Besides, there is usually some defect in bargain articles, or they are out of style, out of date, or there is some other reason why they are sold under price.

Good-bye, old cow, we boarded you for many a thankless day; we kept you warm and fed you, and yet you would not pay. You fooled us for a little while and then there came the rub; the tester said: "My records here proclaim your cow a scrub." We're feeling mighty happy, and are celebrating now, for dad has promised mother he will buy a tested cow. We're glad to see the last of you; no tear is in our eye; you paid us ill for all our care; good-bye, old scrub, good-bye.

The Welfare of the Home

The Outgoing and Homecoming of the Child

By NELLIA GARDNER WHITE

Did you ever watch pigeons circling about the pigeon house, and listen to their cooing before they settled down for the night? The flying in and out of the pigeons suggests "the glad outgoing, sweet homecoming" of childhood, around the mother's knee. Froebel recognized in this scene a symbol of life, a lesson for us, as mothers, which we cannot study too faithfully.

The "outgoing" and the "homecoming," then, is a world of meaning in each word. Do you send your child out each day, to school or to play, glad to go, but gladder still to return?

What sort of a homecoming does he have? Aren't we, Mothers, too apt to make that homecoming full of scoldings for tardiness, or nagging over table deportment, or rushing the child off to bed so we can have the evening to ourselves? Those things seem of small importance, but wouldn't it be of more lasting value to us and to our children if, instead, we made of that homecoming a happy summary of the day's affairs?

There is no child who is not glad to tell what he has been doing all day. If he has been at school there are often little difficulties, little vexations that the teacher has not had time to satisfactorily explain or smooth out. A word or two from Mother may make it all clear and right. And if he has been at play there will be so many things to tell. It is in the out at play that the child becomes acquainted with the fascinating realm of out-of-doors. Flowers, birds, trees, bees and butterflies—he may become closer acquainted with them all through the retelling of his experiences among

them. Wouldn't he be more interested in insect life if he listens to the story of the butterfly or of the ant with its almost human arrangement of home and work? Wouldn't he find more satisfaction in the fields if he knew that there were weeds that ate plants and some that lived on other plants, like selfish folks? And wouldn't you like to have him so form the habit of telling you things that he goes on telling them even after he passes out of childhood? Wouldn't you like to be the one he always comes back to for understanding and intelligent enlargement of his small ideas?

And isn't it in this deep abiding faith in Mother and Father, and in the intimate comradeship with the outside world, that the faith in the Infinite is born? Perhaps, in childhood, the connection between the Creator of the Universe and a white-fringed, golden-hearted daisy may not be over too clear, and if the connection is made at all, if the child sees the manifestation of the Divine in all the forces of nature, it will not be such a far cry to discovering such manifestations in his own soul. Then, as you help him to weave his little experiences into a happy whole at the day's end, so may his larger experiences fashion themselves into a life pattern that he will not be ashamed to show to himself or his Creator at the "twilight hour" of life.

"Let knowledge grow from more to more, But more of reverence in us dwell; That mind and soul according well, May make one music as before."

Creating a Musical Atmosphere in the Home

By MARION DALLAS

All through the country, in villages and towns, there are young girls and women improving their spare time by the study of music. Many of these have a teacher come once or perhaps twice a week to guide and inspire them in their work, but sometimes, owing to bad weather, poor roads, or other reasons, weeks elapse between the visits of the teacher. To add in such times as these, and to help and enthrall the girls who are nobly struggling alone, without the counsel and advice of any teacher, but purely for their love of music, this article is written.

The study of music should be undertaken with an intelligent comprehension of its beauty and wealth of melody. It should never be studied in the listless fashion, adopted by so many young people. By that, I mean the careless playing of airs, with variations, the murdering of beautiful songs, and the strumming of cake walks, and popular songs. The object of all study of music is to give pleasure, not only to ourselves, but to others.

It must be from the heart. Every player must study thoughtfully, and with an earnestness, which convinces the listener. Even the simplest tunes can be rendered to give pleasure, but only as the player throws her soul into her music, will she influence her audience.

Harmony a Help.

To thoroughly enjoy the practice of music, I would recommend the student to master, first, Cumming's Book on "Rudiments," and then to turn to Stainer's "Harmony." A study of harmony, although it may seem uninteresting at first, gives an insight into music which can be derived in no other way. It is a great help in memory work. It is not an easy study alone, but many of the teachers and professors in our colleges of music will, for a very nominal fee, correct exercises (by mail) and give a great deal of help in that way.

Study Musical History.

The study of musical history gives a glimpse into the inner life of the great musicians, and enables one to interpret some of their thoughts and ideas. Following this, the history of music will teach the student to appreciate music as a great art, and especially, this is needed in home study. It opens up a new world, and makes the young to make some musical history for Canada themselves, for we know our musical and national history is only in its infancy.

When great artists come to your town or near you, go and hear them. Don't be discouraged if they play some of the pieces you are learning better than you do. Remember, although we cannot all be artists we can all do our best. Let the great player be an incentive to you to work harder and more faithfully.

Practice Not Long, But Well.

Set apart so many hours for practice every day, and allow nothing to inter-

fere with your plans. Divide your practice hour. Practice technical exercises, but even in these watch the rhythm or accent. Make a study of time. Practice your pieces slowly. Slow practice is the foundation of all good piano or organ playing. Learn to practice not long, but thoughtfully, and keep the mind and fingers under control. Learn to memorize each piece thoroughly. When the first piece has been mastered, you will find the second much easier. It is really distressing to spend an evening in company with perhaps 20 young ladies (many of whom you know are paying out hard earned money to colleges and teachers), when a request is made for some music to hear one girl after another refuse, saying, "Oh, I can't play without my music." After hard coaxing some girl is prevailed upon to play "something," and it is usually just a "something."

Overcome Nervousness.

Play every time you get an opportunity; play for father and mother—and play them as carefully as if you had a large audience. Seize every chance to play before an audience. Much of our poor music is largely the result of nervousness and lack of memory training. The only cure of nervousness is constant appearance in public. An excellent way for a piano player to gain confidence is by duet playing and playing accompaniments. In this way you feel you are not alone, but unless you do your part well the performance will be a failure.

Another thing, in your practice include the study of simple hymns. The other night I heard of a meeting of seventy-five people. When the chairman asked for a volunteer pianist no one responded. He repeated his request three times and finally started the hymn. Of course, the result was the devotion of the meeting was spoiled. In speaking of the circumstance to one lady who was present she said, "Well, I never could be bothered studying hymns." They do require study, and in many of our times we find a wealth of harmony. Surely it pays. The satisfaction of giving a little pleasure amply repays for the time spent.

Musical As An Art.

Love your work and believe in yourself. What a satisfaction and pleasure can be derived from the piano-forte while you pursue your studies, lost to all else save the beautiful melodies and harmony. The sense of growing power gives us keenest pleasure as we study the compositions of the masters. New beauties gradually reveal themselves, and light and happiness break over our lives. The mission of music is to lighten toil, to soothe sorrow, to sweeten the lives of all mankind. Let your part be to cause sweet music to be felt in your own life, your home, and your community, no matter how small so that the lives of men and women may be strengthened, refined, and lifted nearer to God.

Gifts We Want.

Some gifts I'd like on Christmas morn, To make my dairy life complete. A patient shelter for the corn. A modern plant for winter heat. I'd like two silos of the best, Cream separators—well, say two. (They'll give us all a needed rest.) It's what progressive farmers do.

I want electric lights this year, And power—and a tractor fine, Macadam roads running near. A telephone—my private line. I'd like a slicked-up motor car. To take me to the movie show, Where all those other racers are. A handsome motor truck or so, New cows to make a wonder-herd, All pedigreed and milking-wise. My heart, then, like a singing bird, Will raise its psalm to the skies.

Hang on the tree these minor gifts, These little things I want and need, And when the day is glory lifts, 'Twill find me worthy of the deed. My boughs be strong and pines wide, And may your Christmas list be long.

Contented dill I here abide, Head high in air—soul filled with song.

Butchering Rules and Recipes

Doubling the quantity of head-cheese: Prepare in the usual way, but while grinding meat cook in broth one-half cup rolled oats to every pound of meat. Combine and season to taste.

Rendering lard: Instead of cutting up the fat in cubes for rendering, we grind it through the sausage grinder, using the coarsest knif this way a lot of time is saved and there are very few cracklings left to press.

The Smithfield cure in common usage is as follows: Hams are placed in a tray or shelf covered with salt and sprinkled with saltpetre until quite frosty. Use from five to six ounces of saltpetre for each 100 pounds of meat. Then salt and pile for three days and then salt again and leave in salt a day for each pound of meat. Wash with warm water and after partially drying, rub the entire surface with finely ground black pepper. Smoke for from thirty to forty days. Watch the color and get a uniform tobacco brown. The hams should

be reppered after smoking. Hickory wood is best.

I will tell you our way of putting up meat, either pork or beef. To every eighty pounds of meat we take two and one-half ounces of saltpetre, one and one-half pints of fine salt, and molasses to make a soft paste. Rub this mixture all over the meat the same evening as butchered. Leave it twenty-four hours then take enough salt to cover meat all over, let it remain on benches two weeks, then hang up to dry and smoke. After the meat is smoked enough, sprinkle it over lightly with pulverized borax to keep off flies. We have used this same method of curing meat for nearly forty years and never had an ounce to spoil.

How to handle meat: I have used the following method for more than thirty years and never had a piece to spoil. It always keeps well and tastes good. Here is the method: After meat is thoroughly cooled, take out the lard and ribs, cut into hams, shoulders and sides. Throw several handfuls of salt on the bottom of the barrel, then lay the two hams skin side down. Cover them well with salt, a small handful of sugar (a teaspoonful of sugar will be sufficient for a 350-pound hog), then a half-teaspoonful of saltpetre on each ham, and so on until each piece is treated the same way. Put on some rocks to hold meat down under the brine. Make a brine strong enough to float a fresh egg, pour it along the edge so as not to wash anything off the meat. In thirty days take up the brine and boil and skim until clear, then cool and put back again and let it remain four weeks, and the meat is ready to smoke. When you take it up, dip each piece in a tub of clean water then hang up and let it drain a few days before smoking.

The tank of an oil-stove, located outside the house, with oil piped through the wall on a gravity feed, has proved a help to one housewife. The oil man can fill the tank outside without greasing up the kitchen linoleum.

A hole in a granite kettle does not necessarily render it useless. Cut out round pieces of asbestos, place one over the hole and fasten securely on inside. Drive a copper rivet through the hole and fasten securely on the bottom of the kettle, and in this way it will last much longer.

The Illustration Station and Its Relation to the Farm

The Division of Illustration Stations is a branch of the Dominion Experimental Farms system. The object of this Division is to carry results and information gained on the Experimental Farms direct to the farmer. These Stations were started in the year 1914, at twenty-two different points, in Alberta and Saskatchewan. By 1921 eighty-eight Stations were in operation, including those located in the Provinces of Quebec, Nova Scotia, and New Brunswick.

The farms on which the Illustration Stations are located are owned by the private farmer, thereby causing a keen interest to be taken by the neighbors, which naturally develops into considerable rivalry.

The general scheme of co-operation between the Department and the farmer is as follows:

The planning and carrying on of a suitable systematic rotation of crops for the Station, and its neighborhood.

The sowing of varieties and strains of grain suitable to the soil and district.

Different rates per acre to ascertain the most suitable rate of seeding. The sowing of different amounts of clovers and grass seed.

Testing home grown seed vs. purchased seed.

The sowing of mixed crop for summer pastures.

The introduction and use of labor-saving devices and up-to-date machinery.

The practicing of after-harvest cultivation, to kill weeds and insects, conserve moisture, and increase yields.

The care and economy of barn-yard manure.

The encouragement of a good farm garden.

To encourage the raising of pure-bred poultry, proper feeding, and housing.

In the Eastern provinces many meadows and pastures are left down too long and when renewed, too often the soil is poorly prepared and not enough clover and grass seed is sown.

The example given by the Illustration Station is noticeable.

Part of the field is sown with about the same amount of seed as is usually sown in the district, and the other part is seeded with a heavy mixture, making such a contrast that farmers stop to make enquiries as to the cause of the difference in yield.

Selected Seed—One of the principal objects of the work is to grow good seed in large quantities so that farmers will have an opportunity to purchase at reasonable prices. On several Stations a special line of work is the growing of pure seed. The varieties chosen for the Illustration Stations are those that have been grown for a number of years on the nearest Experimental Farm, and have proven suitable for that particular district.

After-harvest Cultivation—Weeds in some sections are taking possession of the land, and to eradicate them, after-harvest cultivation along with weed crops must be practiced. After-harvest cultivation destroys weeds and insects; soil surfaces are made available for plant food, moisture conserved, and the soil put into good mechanical condition to grow big crops.

Value of Farm Manure.

Farm manure pays. In five years on four acres at the Experimental Farm, Ottawa, the use of such manure increased the value of the crops by \$391.20. Each year where farm manure was applied there was an increased yield, and consequently increased profit. Dealing with 1920 alone, manure produced an increased crop of 15.5 tons at \$2.88 per ton, a profit of \$44.31; oats increased 8.8 bushels at 55¢ a bushel, a profit of \$5.10; clover hay showed an increased crop of 1.7 tons, which at \$24.30 per ton means a profit of \$41.31. These increases are shown by comparison with the yields on unmanured land that year adjoining. Thus a direct profit is shown on these three crops by the use of farm manure of \$90.72. In addition the soil of the manured land was left in much better condition for cultivation the following year than was the unmanured. The manure used was valued at only \$7.45.

Wheat has been grown in Great Britain for nearly 2,300 years.

Worsted stuffs were first made at the village of Worsted, in Norfolk, about 1313.

In the period since confederation in 1867, Canada's total trade has multiplied twenty times over. In the same period exports have increased by nearly twenty-three fold and imports nearly twenty fold. The total trade in the last fiscal year amounted to \$2,450,587,001, of which \$1,210,428,119 was represented by exports and \$1,240,158,882 by imports. In 1868 total trade was \$119,791,879, \$52,701,720 representing exports, and \$67,090,159 imports.

Too often the poultry breeder will neglect the flock for a long time and when the birds are half sick expect to find an easy remedy to quickly return them to health. In such cases the treatment is often unsatisfactory. The hen that is half dead with roup or bronchitis is usually a victim of neglect. The trouble can be prevented easier than cured.