

Soils and Crops

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The Farm Flock in Late Summer.

Pullets and cockerels that feather rapidly make the best laying and most vigorous farm flock. Such birds should be banded so that they can be retained when the flock is culled in the fall. It pays to band all the hens that are held over so their ages will be known and they will not be held longer than their period of usefulness, or confused with birds of a younger age. Many yearling hens look much like pullets when the hens are through the molt and the bands help to distinguish them.

The high normal layers make the best breeders for the farm flock. Hens with high egg records have often proved poor breeders. The highest producers are apt to exhaust their energy in egg production and this means low vitality in the chicks.

Remember the mangels and cabbage and keep them growing for poultry feed next winter. Green food has been proven very necessary as a winter egg producer and a means of keeping the hens healthy. If green food saves the life of five hens and produces twenty dozen more eggs next winter, that will surely pay for quite a few hours' labor spent in weeding the mangels and setting out the cabbage.

The young cockerels that show early signs of maturity and vigor should be banded for breeders. It is assumed that they come from hens that are good layers. It pays to band a surplus to make up for any unexpected losses. If many cockerels are saved it is best to isolate them from the pullets so that the pullets will not be retarded in growth by being crowded from the feed hoppers and trampled when the scratch grain is scattered on the range.

When a breeder has a little success with poultry he is often tempted to want to raise enough to cover a county. Then it is good to advance carefully and remember that quality is very important and a few poor hens in a large flock will cut down profits rapidly. Large poultry flocks require much equipment and the work is confusing and discouraging unless the breeder is skilful and has plenty of capital and equipment on which to exercise skill.

Egg production and milk production are often compared as if they were quite similar. But the cow produces one calf a year and then furnishes food for the calf. The hens furnish the possibility of a lively chick with every egg produced. In other words, the hen that is laying heavily is constantly striving to reproduce herself and that is a greater strain on the vitality than is the case with the cow giving milk.

A few capons for home use will be greatly appreciated during the winter. But a set of capon tools is not a sure road to profit with cockerels. Capons must have plenty of feed to develop large frames and plenty of meat. At the present cost of growing poultry meat it does not seem possible to make much profit on capons. Those that are raised must be skillfully marketed where they are appreciated.

A visit to the poultry show at the Fair is often a stimulus to the poultry keeper on the farm. Visits with other breeders are often encouraging. The sight of many fine birds inspires the poultry keeper to make more effort in the management of his own stock. And the poultry show is needed to keep up the interest in the standard-bred fowls.

It seems as if the time has arrived when the home feed grinder should go with every poultry flock of any size. With these grinders it is possible to crack small grains and save the buying of fine chick scratch grain. Corn can also be cracked for the growing stock. On rainy days the grain feeder can be ground up and mixed. At the present price of grain and commercial dry mash it seems

very plausible to believe that money can be saved by grinding home-grown grain or grain purchased from the neighbors. For large flocks a power-grinder is needed. For small farm flocks, one of the largest size hand-grinders will prove very useful. Now is the time to clean and oil the stove brooders and store them for next year. If left in the colony houses they will become rusty and unclean. Stove pipes will also rust quickly and they should be drummed out and stored in a dry room. The film of oil on the iron stoves keeps out rust and helps the stove to deliver many years of service.

What Makes a Bacon Hog?

To produce the lean, mild-cured side known as "Wiltshire" we require a long, deep, smooth pig, possessing a light head and shoulder, an even back, not too wide, but well covered with flesh, yet not fat. The sides from back of shoulder to ham must be deep and long, the ribs short and sprung out boldly and dropping almost at right angles, the underline straight and free from flabbiness, the ham smooth and tapering with the maximum amount of flesh on the outside. The pig should stand on strong, but not coarse, well balanced legs and feet must be vigorous, healthy and a good feeder. This is the kind of pig needed for both home and foreign markets. He is a type, not a breed.

As a rule the weight limits of the bacon hog are fixed at 160 to 200 lbs. live weight. At the same time, a hog may weigh slightly more than 200 lbs. and still make a good Wiltshire side. Most hogs are, however, liable to be too fat after they reach the 200-lb. mark.

We must produce a regular supply. We cannot go into the business for six months of the year and then go out of it for six months without having a general average of price that is unprofitable both to producer and packer. Such a course breaks trade connections, loses customers and ultimately results in a cutting of prices on the part of the packer to get these customers back. The farmer must pay the price for this irregularity. The British buyer must have the assurance of a regular supply, otherwise he will utilize sources where the supply is dependable. In short, our supply must be organized to meet the supply of the trade. If the market wants hogs in September, then October marketing will not do. It may suit our convenience but it will not build up our business.

It is this irregularity in the production of our hogs that has been directly responsible for what is often wrongfully termed over-production. A study of our Canadian marketing shows such irregularity of marketing to exist.

The above extracts are from a pamphlet, "The Bacon Hog and the British Market," issued by the Department of Agriculture. Supplementing this information is the statement in a second pamphlet, "Bacon Pigs in Canada," by Dr. J. H. Grisdale when at the Central Experimental Farm, that "Pigs must conform to the requirements are found in greatest numbers among Large Improved Yorkshires, Tamworths and Berkshires and among their grades and cross-breeds. The Large Improved Yorkshires in shape come very nearly being ideal bacon pigs. They furnish a very large proportion of carcasses answering the requirements of the best bacon trade. The hams are well developed and the proportion of fat to lean is usually about right. Tamworths, red pigs, are almost invariably deep-sided and long-bodied, but are not infrequently rather light in conformation are not quite so well suited for the bacon trade as some of the other breeds, but they are very well suited for pasturing."

Good Livestock Pays More Than Good Crops.

A survey of 242 farms in Durham county, Ontario, just issued by the Department of Farm Economics, furnishes renewed proof that good livestock is a more potent factor in the success of mixed farming than are good crops. The following is a summary of the conclusions in the recent report of the survey. It shows the returns which the farmers concerned received for their year's work which varied according to the crops they raised, plus the quality of the livestock they kept:

On Farms with poor crops:

Labor income from—	
Poor livestock	\$ 27.00
Average livestock	821.00
Good livestock	1,676.00

On Farms with average crops:

Labor income from—	
Poor livestock	\$ 332.00
Average livestock	1,568.00
Good livestock	1,729.00

On Farms with good crops:

Labor income from—	
Poor livestock	\$ 744.00
Average livestock	1,416.00
Good livestock	1,254.00

"Increases of \$456, \$592 and \$771 can be credited," the report adds, "to the growing of better crops, and \$985, \$1,227 and \$1,344 can be credited to

the keeping and breeding of better livestock—all about twice the increases due to growing better crops.

"Livestock is the market through which the mixed farmer sells the greater portion of his crops. If then, the quality of his stock ranks low in quality, the prices he receives for his grain, hay, silage and roots will be correspondingly low, showing the fact that growing large crops to market through poor stock.

"Thus it can be safely stated that the greatest single factor making for successful livestock farming, either beef or dairy or mixed, is a higher quality of livestock."

Rules for Harvesting Apples.

1. Pick lower limbs first.
2. See that the ladder is pushed into the tree gently so as not to knock off or bruise the fruit.
3. Hang the basket so as to be able to pick with both hands.
4. Lay the apples in; not drop or throw them.
5. Pick no specked apples.
6. Pick no small, green ones.
7. Do not take much time picking a few little apples out of reach.
8. In emptying, pour gently, as you would eggs.
9. Do not set one basket or crate on another so that the apples below will be bruised.
10. Lift and set down gently all filled crates.
11. Use spring wagon in hauling, avoid rough ground, and go slow except on smooth road.

Tuberculosis in Cattle.

British health officers believe that if tuberculosis could be entirely eradicated from dairy cattle, the complaint would be reduced at least fifty per cent. in human beings. How necessary efforts in this direction may become may thus be well understood. By co-operation between the Dominion and provincial departments of Agriculture a great deal has been, and is being accomplished. Canada has been proved to possess the healthiest live stock of any country. The adoption of the Accredited Herd Plan is in the way of achieving much toward the perpetuation of good health, particularly in our dairy cattle. In 1917 the plan was introduced in the United States and has proven eminently successful. Two years later it was adopted in this country, and already there is evidence of much good having been brought about, especially as animals belonging to herds proven to be absolutely clean and in receipt of certificates to that effect can be freely exported to the United States. At the end of July last in this country 522 herds were undergoing the tuberculin test to enable them to qualify for certificates. At the same time there were 100 names of herd proprietors on the waiting list, and so numerous were the applications for the service, and the consequent demands upon the Health of Animals staff, that over 220 others had to be temporarily refused. Up to the period mentioned no fewer than 30,362 tests and retests had been made and 3,319 reactors had been condemned, necessitating the payment of \$396,464 in compensation. The extent of the work carried on in the United States will be understood when it is stated that this year Congress at

Washington voted five million dollars for compensation and salaries. To receive a certificate of accreditation a herd must pass three semi-annual tests without a reactor and at the end of a year be subject to another test. So far the work has been confined to pure-bred herds, but there is a likelihood of its being extended, with increased grants for expenditure, to commercial grade herds of dairy cattle.

How to Feed Rabbits.

A rabbit is the cleanest, most particular animal when it comes to eating: he will go hungry rather than eat something he does not want. He is a vegetarian, but does not care for sugared nor mustard; he will nibble at curled dock or pigweed, and rather likes plantain and mallow. When given the chance, rabbits search out clover; they eat the flowers first, then the leaves and stems. Sometimes even the roots are dug up, for bunny does love clover!

Young rabbits require little but their mother's milk for the first six or eight weeks. Once a day they can be given a mixture of bread and milk, and after the first month hay and grain can be gradually introduced.

Oats are the only suitable grain for rabbits, and must be crushed for the little fellows under three months of age. Also, mix in a little bran. Feed twice a day, except when a doe is nursing. Give her a noon meal. In summer the larger part of each meal should be green stuff—clover, plantain and grasses. Lawn cuttings are good.

Hay is a necessary part of the rabbit's diet, but it must be sweet and free from mold. Some breeders keep

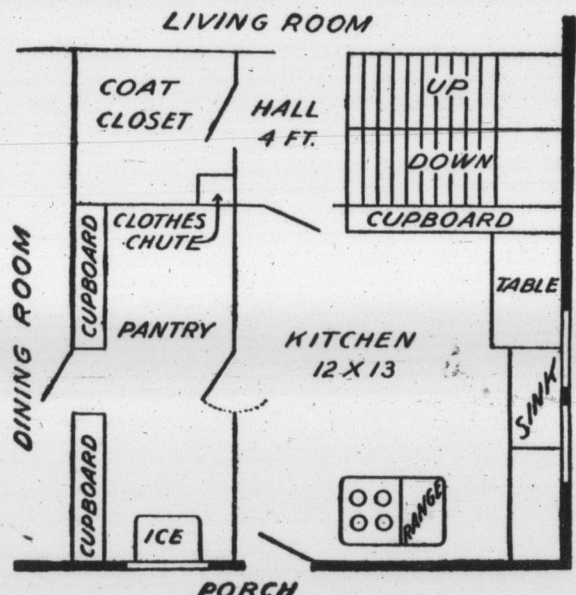
The Ideal Kitchen

I wonder if every woman is possessed with a mania for ripping to pieces and making over. There's the matter of houses. I never moved into a house—with one exception—that I didn't immediately want to move a few rooms around, stretch some out and make some smaller, no matter how well I thought I was going to like it before. Especially the kitchen. Of course, men growl at this propensity, but that is because they do not have to do the work. The reason most houses do not suit women is because a man plans and builds them. Very seldom do you find a house planned by a woman. That is why in most kitchens the sink is so low you nearly break your back every time you wash the dishes. I was in one the other day where the only way a woman of medium height could ever make use of the sink would be to sit down. The cupboards are invariably in the wrong corner of a man-made kitchen, the stove as far from the table as it can be put, and the pantry, if they condescend to give you one at all, as far from the stove and your table as it can be put.

I had six kitchen workshops in my housekeeping days, and only one

The sink was high enough from the floor to allow me to stand upright. Indeed, I could rest my arms on the edge while I washed dishes. It was large enough to hold both dishpans at once. At the left of the sink, between it and the cupboards, was a built-in table, covered with zinc, and with one broad shelf beneath. This made an ideal cupboard for dishpans, of scouring material, extra soap, baking tins, etc. The remaining space in the bottom of the cupboards was divided into space for a flour bin and drawers for dishcloths, kitchen aprons, cutlery and paper. I kept the spices, flavoring, etc., in the cupboard over the flour bin. Without moving from the table I could reach everything I needed with which to bake.

At the right of the sink was a wooden drip board, grooved, running from sink to west wall. Alongside of this stood the range, and just north of the range the door leading into the yard. Over this door was a transom. With the transom open and the kitchen window open a tiny crack at the bottom, odors and steam were sucked outside. Standing at the sink I could by one step reach stove or cupboard. Baking was a dream, and meal-getting



look so few steps you couldn't get tired. The entry to the dining-room was on the north side, opposite the sink. Between the two rooms was a pantry with immense cupboards which held dishes and dining-room supplies. There were drawers here for table linen and silver. Under the window was space for the refrigerator, with outside drip, and the clothes chute, for dropping soiled linen into the laundry in the basement.

To me it was an ideal arrangement. Some women might object to the pantry between kitchen and dining-room, but the few extra steps it made were to me more than offset by the fact that it effectively shut off a view of the kitchen from the dining-room, and also helped to keep out odors. There was no room in the kitchen for lounging, only space for one chair next the pantry door, and this was so obviously in the way that it discouraged visitors sitting there long. This might also be a drawback to some women, but if you are one of the sort who can't work and talk, and do not like to stay in the kitchen forever, it is a good plan.

I always kept a high stool slipped under the sink board for my own use. It was the work of a moment to p it out and sit down to prepare vegetables or fruit for a meal, or even to dry dishes.

The Welfare of the Home

Art and the Little Child

Art is a big word to use in connection with a little child who at present is able to distinguish only the primary colors and whose drawing are a fantastic scribble. But all the child is going to be grows out of what he is, and all that he is going to have depends upon the wisdom of our giving now.

When we ask ourselves what art means to a human being we soon answer our own question by saying: Art is a means of happiness and a means of expression. If we ask further, whether it may be both to all, we reply: It may be a means of happiness to all, and although to only a few can it be a way of adequate expression, yet there is little doubt that everybody, if carefully trained, can to some degree, express himself through art. The importance of art then is not the possibility that we may discover and develop a few masters, but that we may open to all the people new pathways of self-expression and happiness.

The beginning of every art is in appreciation. The wise mother to-day does not have her child "begin music" by sitting him down, reluctant, at the piano and having him "take" music lessons, like an inoculation. She sees to it that he hears much good music from the cradle days until he is, as it were, saturated with music, and is eager to find some way of expressing music with his voice and fingers.

And so the way to help a child to art is to help him to feel for color, to rejoice in fire and sunlight and shadows, to enjoy tracing out happy designs, and perhaps best of all, to learn to love pictures.

The homeliest playthings may be used to develop the color-sense. Bright bits of pottery, marbles, scraps of cloth, shells, flowers, gold-fish, all afford daily opportunities, and even a

display of bright fruit preserves or aluminum dishes in the kitchen and the use of well-selected paint and wall-papers may accustom a child to good taste in the humblest home.

All studies that have been made of children's interest in pictures indicate that their first liking is almost wholly for the story. They are not very particular about the color, and they have no inborn taste for the Old Masters. The people in the pictures are their friends, and it is the dramatic rather than the esthetic consideration that effects them.

This suggests what we are to do. Let us select book-pictures and pictures for the home walls that tell beautiful stories in a beautiful way. Let us implant images that will always be treasures worth while, both because they are good art and because they are eternally inspiring.

Having done what we can, early and often, to help the child enjoy color and see beauty in nature and the home, having made good pictures his friends, we may expect to find him ready to make some efforts at self-expression through pictures. Good sense tells us that we should place within his reach a few strong colors, an easy medium and models largely of his own choosing. Soft crayons furnish the best first medium and adequate colors. His first efforts will be to portray an idea rather than an image. If he starts to make a night picture it will probably consist of a row of stars. Design rather than drawing, will be his mood, and his efforts to portray action will be extremely "impressionistic." Freedom, joy and vigor rather than accuracy should be the aim. Tracing is useless and copying vain, but the young child who makes pictures his other language, who tries to say something with his fingers, has begun to climb the "Delectable Mountains."

THE CHILDREN'S HOUR

The Filipinos, like all Oriental races, use rice as their principal food. This rice is cultivated under great handicaps. Most of the large rice-growers in the region of Manila plow their fields with one-handed steel plows drawn by water buffaloes or carabao. The rice is transplanted from seed-beds, harvested by hand and threshed in a community machine.

In a very mountainous section of the Philippine Islands the inhabitants have only the very steep mountainsides on which to raise their crops of rice. Those who see the hillside being wasted, as rabbit food—he is too much of an epicure to eat it unless very hungry.

If the rabbits seem troubled with looseness of the bowels, cut down on the green food, and mix some flour with the grain. Fresh water should be before them all the time, and a piece of rock salt. The latter will make salting of the food unnecessary.

In winter, rabbits should have a warm bath once a day, preferably in the morning. Give the nursing doe all of this she will eat. One good mash is made of ground alfalfa, wheat bran, rolled oats, equal parts, with some chopped-up vegetable like carrots. Corn fodder makes a pleasant change occasionally. Be extremely careful in experimenting on the rabbits' food, and guard particularly against bowel trouble.

These terraces are irrigated by streams of water far up in the mountains.

Among other interesting things seen in the Philippines are the carabao, the burden-bearers of the islands. Not only do they do the plowing in the rice and corn-fields, but they are used for heavy hauling of all sorts. Work-horses as we know them in this country are seldom seen in the Philippines, as they do not thrive in the hot climate. The carabao is small and much like our ponies, and are used almost entirely for carriage purposes. The carabao is very docile animals, and the natives seem to be able to guide them wherever they wish with only a single line or perhaps none. When they are not working they are usually found in some of the many esteros or waterways, wallowing in the mud, or grazing on the "carabao lettuce."

The picturesque nipa huts of the natives are interesting when you think that they have been constructed without a foot of lumber, a nail, a pound of hardware, without paint, plaster, plumbing, stone, brick, or tile. Yet they withstand earthquakes and storm and heat, and are as picturesque as well. In certain parts of Manila one may still see rows of these nipa huts.

Knock off the shoes and turn the horses in pasture for a week or so, when summer work is over.

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GREAT FARM INVENTORS

Cyrus McCormick invented the reaper in 1831, when he was twenty-two. The day he tried it out on a Virginia wheat field the neighbors stood around and snickered and laughed at him. He worked in poverty on his small farm another ten years before he perfected the machine. You know what it means to you to-day.

Carl Gustaf Patrik De Laval is the man who invented the cream separator. Born in Sweden, in 1845, he was the son of a soldier, a captain in the famous Dal regiment. After years of practical engineering, he became interested in separating cream from milk by centrifugal force as applied to the revolving barrel of milk. In 1878 he took out his first patent, founding the American business five years later.

William Whiteley invented in 1858 a combined mower and reaper. He was a queer citizen. Once a race with reapers he unharnessed the horses and pulled the reaper himself. He made and lost millions of dollars on his machines. He exhibited a reaper made of rosewood and gold; his carloads of reapers were accompanied by brass bands. He flung the reapers of his rivals on the junk heap and gave their owners his own make instead. He ate nothing but pie for half a week. And he holds a record among reaper men for his inventions, with 125 patents to his name.

Two hundred and forty-one years ago Christian Huygens invented the first gas engine—the same engine, in principle, that to-day runs your automobile, light plant, tractor, and other power farm machinery. Sit down and try to figure out how much you owe him. Huygens was born at Hague, in 1629. He interested the King of France in the idea of telling time by machinery—the first clock. He called it an "automaton." Huygens went insane in Paris, in 1695, from overstrain.

Jerome I Case went west from Oswego, New York, in 1842 with six threshing machines for capital. Up to this time the grain in the region of the Great Lakes was threshed in winter by being beaten with flails on the barn floor. The following year Case built his first machine to thresh and separate grain from the straw, and thus started the foundation of one of the greatest manufacturing concerns of its kind in the world. Like other famous inventors, several machines bear his name.

In the dairy industry Dr. Stephen M. Babcock stands as one of the leading figures because of his invention of the Babcock test, which supplied the means of gauging the worth of the individual cow as a producer. Dr. Babcock made his discovery in the laboratories of the University of Wisconsin thirty-three years ago, at the time when the dairy industry of America was in its infancy.

The inventor of the wheat binder, John F. Appleby, started his career doing chores for a dollar a week. But all his wits during these years were at work to find some way to get machinery to do his work for him. He contrived a knotting machine when he was seventeen, and a young school teacher loaned him \$50, but lost his nerve and wanted it back. After the American Civil War Appleby made a machine that bound a couple of sheaves before it broke—which was enough, however, to convince one of the spectators to back him for a thousand and start him on his way.

Harvesting Pears.

Pears, while far less commonly grown than apples, are found in some farm orchards. Pears are often neglected at time of harvesting and storing; therefore they are not so fully appreciated as they might be. What is better than a luscious, juicy, properly-ripened pear, unless it is two or more?

To mature and ripen to best advantage pears should be harvested before they would ripen naturally on the trees. Summer and fall varieties are usually picked a week or ten days before they fully mature. Proper stage of maturity for harvesting comes when the dead green color is being replaced by a clearer, more transparent, lighter green.

After picking, the pears should be ripened in a cool, dark place, preferably in single layers on racks of some sort. They should not be piled in heaps. Summer varieties are usually at their best from one to three weeks after harvesting. Fall or winter varieties, which are most satisfactory for eating purposes in from two to four weeks after picking, should be taken from the tree when of the same color as earlier varieties.

Careful handling is essential to success in keeping pears. Specimens with bruised spots or with broken skins should go down quickly after having reached the highest degree of edibility. Nor may we expect wormy or diseased specimens to keep well in storage.

It's a good plan to give the boy a day off now and then, with a little spending money; it's a still better plan to go along with him and be a boy yourself once more.

When you meet a man for the first time, and carry away with you a vivid impression of a remark, the tone of his voice and expression of his countenance, and perhaps a memory of a look into his soul, his Personality has played its part and won.