

Soils & Crops

Address communications to Agronomist, 75 Adelaide St. West, Toronto

TOO MUCH CORN CULTIVATION.

More corn is destroyed by cultivation than by pest, storm or drought. The average corn grower plants his corn and does nothing with it until it is high enough to plow with a cultivator equipped with a big, broad, sharp-pointed blades and fenders to keep the dirt from covering the corn. Then he sets his cultivator to plow as deep as possible and as close to the corn as he can go. If his corn has been checked, he will plow it both ways in this manner. And he will thus cultivate his corn four or five times, never adjusting his cultivator to plow shallow. Generally at the last cultivation his corn will be so high that the cultivator will break much of it down.

Once had a neighbor who thus cultivated his corn at the last cultivation, when his corn was so high that his cultivator broke down a large percentage of it. We were in the midst of a summer drought, and he was making the cultivator's points go as deep as he could make them go, and at the end of the rows when he lifted the points to make the turn they were cluttered with great masses of fine corn roots. Less than thirty minutes after the rows of corn were thus plowed the corn blades began to wither as they do under a midday sun during a summer drought. Before he began to thus cultivate that corn it bore every evidence of producing seventy or more bushels to the acre. It didn't produce thirty bushels to the acre.

My corn, just on the other side of the fence, cultivated in a way to conserve the corn roots and conserve moisture, produced ninety bushels to the acre.

Experiments have proved that plowing corn three inches deep, six inches from the plant, cut the crop six bushels to the acre, and plowing four inches deep cut the yield eighteen bushels to the acre.

The best method of cultivating corn is to cultivate it before planting.

Assuming that you have a good seed bed containing an ample supply of plant food to grow the crop, then this seed bed must be kept free of weeds. The best way to get the good seed bed and free it of weeds is to plow it deep enough and disk and harrow it until the soil is fine and the weeds are killed. And it ought to be disked and harrowed two or more times.

POULTRY.

As the time for culling approaches it is well to spend a little time and effort in getting together the sort of equipment that will both simplify the actual culling and prevent too serious discomfort for the hens while this necessary work is being accomplished.

It should be recognized clearly that the process of catching and handling the hens tends to check the production of those that are laying. It is important, therefore, that the hens be caught in such a manner as to frighten them as little as possible.

A catching coop or crate which has a hinged or sliding door on top and a sliding door in one end is most convenient for this purpose. The crate should be set outside the house with its open end over the regular hen exit.

The hens are then easily driven into the crate from which they may be taken one at a time for individual inspection.

It is often desirable to know just how many eggs a flock of hens must produce daily in order to pay for the feed that is being consumed. A very simple formula for arriving at this information is to divide the price of feed a hundred pounds by the price of eggs a dozen and multiply the result by three. The figure thus obtained will be the percentage egg yield your hens must show in order to pay for feed under the price conditions stated.

If feed is costing \$2.75 a hundred pounds and eggs are bringing twenty-five cents a dozen, we have (275 ÷ 25) X 3 = 33. This means that the flock must be laying at the rate of 33 per cent., or thirty-three eggs a day for each hundred hens—if of the American or general purpose breeds—in order to pay for their feed. With Leghorns and other light breeds it is more nearly correct to use 2.5 as a multiplier because of the lower feed consumption of these breeds.

Under commercial flock conditions it is commonly estimated that feed cost constitutes 60 per cent. of the total cost of keeping hens for egg production. If we multiply by five instead of by three we can arrive at the approximate production necessary from the flock to pay all costs of egg production.

Write your name each day in gentleness, kindness, patience, courtesy. Good deeds are life's brightest stars. They shine in the daytime as well as in the night.—John Wanamaker.

The optimist is the man who has good time wherever he goes, because he carries his good time with him.

Having planted good seed, the grower should start with a harrow and weeder as soon as the corn comes through the soil.

If you follow the foregoing method by cultivating your corn crop before planting it, and then running over it with harrow and weeder two or more times after planting, your job of cultivating your corn is more than half done. And then if your subsequent cultivations are done with cultivator points that will not penetrate more than an inch in depth or just deep enough to destroy weeds and make a mulch you have properly cultivated your corn crop.

THICKENING THIN MEADOWS.

Frequently a new meadow is too thin, or has a patchy stand. A 100-acre farmer near us, who has about half of his farm in hay and who produces in the neighborhood of \$2,000 worth of prime market hay each year, takes great pains in securing a perfect stand of clean grasses and clovers in his meadows.

His method of thickening a thin first year's stand of timothy is to harvest the young, thin fields a little late. He says that it is not necessary to allow the timothy to become over-ripe for self-seeding, but fully mature. Then, in harvesting, enough new seed will shatter off in the field to reseed the land completely and heavily. At the same time the hay will make good feed with proper handling.

With this farmer's rather large acreage of meadow, a week or more is required to harvest all the hay crop. Some fields must be cut first, and some must wait a week or more. He cuts the fields of thickest stand first, allowing fields of thinner stand to be handled last, when the seed will be ripe and when self-seeding will result.

The method, of course, is both simple and inexpensive.

On this same farm, where red clover is mixed with timothy, the owner allows all of the late summer and fall growth of clover on land of rather thin stand to mature and remain in the field to fall down and reseed the soil. Clover, being a biennial, with timothy will die out after the second year, leaving timothy only. But, by allowing late summer and fall clover to ripen and remain on the land with clover and timothy mixed, perpetual clover in the crop may be secured.

HORSE.

Poll evil is just what its name indicates—an "evil of the poll," which in horses denotes that part of the head just between the ears.

Starting as a small swelling just back of the ears, the owner thinks it has been caused by a bruise or too tight a halter or bridle. As it resists all treatment and goes from bad to worse, he may lance it himself or summon a veterinarian. A careful examination reveals the true condition, and in poll evil we have one of the most difficult maladies to combat in surgery.

The reason for this is because the puss burrows down under the big cord that controls the movement of the neck. The under part of this cord or ligament now becomes diseased and looks much like a frozen wattle on a chicken. Sometimes a portion of this ligament, several inches in length, is taken out entirely, so that all diseased tissues may be removed and the poll-evil abscess given a chance to heal.

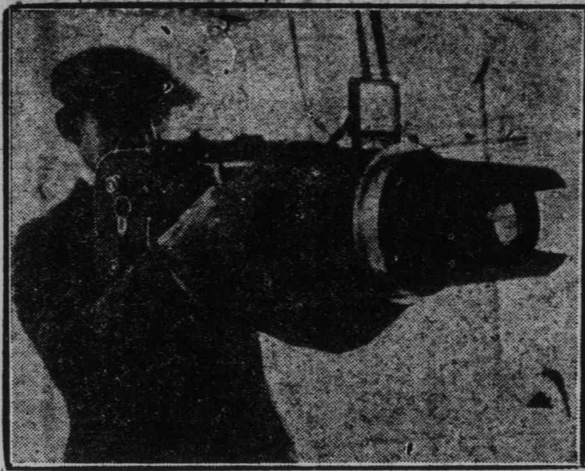
Very peculiar foreign objects may cause poll evil. In one case a horse had been troubled with a sore on his head, just back of the left ear. When the lump was lanced, a small tooth was found to be the exciting cause, and after this was taken out, the abscess rapidly healed.

Thick Cream and Thin.

Thick cream has less milk serum than thin cream and because of this does not spoil as quickly. This is an advantage to the farmer who can not bring his cream to the creamery very often. Souring of the cream is not objectionable, but when it is soured at random, undesirable odors and over-ripening may occur, resulting in poor quality butter. Thick cream being lighter than thin cream, the express charges are lower, and there is less bulk for the creameryman to handle. Thick cream pasteurizes more efficiently and larger amounts of starter may be used, which aid in controlling the flavor of the butter. For proper churning, the cream should not be less than 30 per cent. butterfat.

Cold Drinks for Field Hands.

During the extreme hot weather men at work in the fields enjoy a drink of cold water. To meet this requirement I took an earthen gallon jug and fitted two thicknesses of asbestos paper round it, tying securely, then covering with burlap, sewing this on. Fill the jug with cold water, dampen the covering, and you will have cold water a half day.—Mrs. C. C. M.



This photo shows Capt. A. W. Stevens with the new Fairchild six-mile aerial camera which he will use in photographing the Amazon from the air.

Home Education

"The Child's First School is the Family"—Froebel.

The Child's Social Problem—By Sophie Kitchener

In a more or less hushed, expectant, unresisting attitude a group of children were waiting for one of their number, who was at that moment howling his way across the street, to reach his mother "to tell her on them." The occurrence was not a new one. In another moment the boy's mother would hurry out of the house in answer to her son's lusty cries and cross the street to learn what had happened to him.

The children were not afraid of her. There was rather a sense of long-suffering endurance in the way they waited for the scolding and her threats if they did not leave Jimmy trouble if they did not leave Jimmy alone. They were quite bored, although they did not know the name for the feeling, at the frequency of this same happening. They were conscious, too, that they did not go out of their way to hurt Jimmy. They rather liked him and were really friendly. But it was his inability to play along with them and accept the general give and take of their youthful society that had become annoying; a disagreeable shadow was cast when he joined the group. The shadow was specifically that of his mother, ready at all times to come out to defend and protect him from them. This was, of course, because she could not see that he needed no more protection in his social experiences than the rest of them.

When Jimmy went crying home, they knew in some vague way that

the ethics of their group, their child's society, had been violated. The tattler who, instead of standing up and taking the little hurts they all had to endure, or fighting it out if it reached such a pass, always ran home to his mother, roaring his chagrin at the top of a powerful pair of lungs with no thought of shame, was in a sense an outlaw.

They were too young to realize that it was not entirely Jimmy's fault. His mother had encouraged his natural timidity with her own overweening sense of protection. Furthermore she desired to have her mind at rest through knowing "everything he did." So she had cautioned him to come to her whenever anything went wrong, to tell her when anyone hurt him and, in general, to come running to her with every petty difficulty attendant upon finding his bearings in the social order.

Nor did she realize that Jimmy would have little innate power to defend himself in the increasingly intricate social struggles if she acted as a shield for him throughout his childhood, the determining period of his life.

So, with the circumstances such as they were, all Jimmy could contrive to do was disturb his playmates and acquire for himself a disposition that would be difficult to escape in manhood—and simply because his mother brought no real thought to bear on the working out of his problem as an individual and as a future man.

THE CHILDREN'S HOUR

GOOD-BYE TO SPRING.

It was a lovely morning in June; not a cloud in the sky, and only the gentlest of warm breezes stirring the reeds. All the wild things had been up and about since early dawn, hunting, breakfasting, singing and chattering, and seeing to their own domestic affairs. Now there was a hush throughout the land as if all were weary with the strenuous morning's work.

Even spring—that hard-worked fairy, was tired that morning. Her busiest time was over. The year now was fully awake, and everything was growing and flowering and nesting and mating in the full tide of life.

So she came down through the reeds to the river and sat down by the water-lilies where a little furry, round-nosed water-vole was also sitting, enjoying the quiet June sunshine.

To the river, too, came the children, chattering down the winding pathway. On hearing them, the vole slipped quietly into the water, but Spring for once was not in a hurry and let them gather round. Boodles climbed into her lap and Topsy sat by her side, while Popsi lay flat on the warm grass and looked up into her radiant face.

"Well, children!" said Spring. "I am glad you found me to-day, for I shall not be here very much longer." "Oh!" cried the children in chorus. "You haven't got to go away, have you?" "Why, of course!" said Spring, smiling a little. "You can't have me here all the year round!" "Oh dear!" cried Boodles. "I wish we could."

Spring is so much the loveliest time of the year.

"But you love Summer, when she comes, don't you?" said Spring.

"Why, Boodles!" said Topsy. "Just think of hot days by the sea, when we can paddle and bathe again."

"I'd rather have Spring, with all the birds making nests," said Popsi. "That reminds me," said Spring. "When you were looking for the dragon the other day, did you hear a willow-wren singing?"

"Yes!" cried Topsy. "We did hear a sweet little warbly song." "Before you came there was a little water-vole sitting here, and he told me that this morning Mrs. Willow-wren had hatched out four little birds!"

"Oh! Can't we go and look at them?" they cried, all together.

"Well, I shall have to make you invisible I think, or the little mother might be afraid to come back!"

"We'll be just as quiet as little mice," said Popsi.

"Come then!" said Spring, and silently she led them through the thick undergrowth.

"I see the nest!" cried Popsi suddenly as they crept on hands and knees through the tangle. "Oh, such a darling little nest! Look! It has a little roof, and a door in the side!"

On the ground, in a tangle of weeds was the little domed nest of the warbler. It was made of dry grass and roots, and lined with hair and feathers.

"Where are the babies?" asked Boodles.

"They must be asleep!" "Now," said Spring, "I will make you all invisible, and you must lie very quiet, and then perhaps we shall see the little birds being fed."

Spring touched them, and the children became one with reeds and bushes and splatter of sunlight. In the



H.M. King George and the King of Italy are here shown leaving Victoria Station for Buckingham Palace during the Italian monarch's visit to London.

The Beauty of Simple Walls

BY ETHEL CARPENTER.

Every woman wants her home to be pretty, and if she has striven to make it so she takes more pride in its beauty than she does in the perfection of its cleanliness, and that is saying a great deal. It gives any woman keen delight to know that her home is lovely, that it is in style, that it is the prettiest one in the countryside; in other words, that she sets the style in these matters instead of following it.

And any woman, no matter how busy she is, could steal a few moments here and there to plan and to accomplish decorative improvements in her home, if she felt sure she knew what honestly would improve it.

So it is because I know from experience the thing that will work the greatest miracle in any home that I say without hesitation that your walls should receive first consideration. To illustrate the absolute necessity of proper walls, I must tell you about some wall of mine in a little house fifty miles from any big city. When the house first became mine its downstairs rooms were papered in "parlor paper" of the most discouraging sort. It was of gilt and brown and ecru, in garish stripes and large round motifs, and, seen in combination with woodwork of seemingly unfriendly gray, the effect was melancholy and depressing indeed.

A WHITEWASH MIRACLE. I felt many moments of discouragement about this house in the month between taking it and moving in, though I had ordered the paper removed from the wall and whitewash applied instead as a temporary measure.

The day of moving in stands out in my memory. I opened the door into the living room, which gave directly on the road, with the impression strong upon me of the old brown-and-grayness of my last visit—and I stood confronted by a miracle.

The walls were the simple and beautiful white that creamy whitewash gives to things. The woodwork was the same gray it had been, but in combination with the new white walls it had taken on a mysteriously decorative quality, so that the room achieved the effect of space, dignity and a beautiful simplicity. The house had become decoratively new and lovely on account of the new treatment of its walls alone.

I want to tell you just what kind of walls accomplish the greatest beauty for the farmhouse and accomplish it at no great expense.

The simplest treatment, and one that is very beautiful, is water tint. This is applied to plaster, either rough or smooth, and results in a lovely velvety surface somewhat resembling whitewash, but much more smooth and fine. It is suited to any room and to nearly any house.

It creates an artistic effect wherever it is used, if the proper color that is selected, and if no border trimming or stenciling is employed.

The colors which may be advised are cream, pale putty-tan, pearl gray, dove gray, pewter gray, honeysuckle yellow—which may be lightened with white—and white. It is best to avoid any really definite color in most wall treatments, though a tint may lean more toward a certain desired color by adding a little of this color to a pale and neutral tint.

Water tint may be applied to walls by the veriest amateur, the material costing two or three dollars a room. Walls tinted in this manner may not be cleaned, but they usually stay fresh two to four years, depending upon the use they receive, and when they do get shabby it is a simple and inexpensive matter to do them over. Another wall finish that recommends itself is a covering that comes ready to hang, painted in oil on cloth, and which may be applied to any flat surface. A flat finish in a plain tint is to be advised in this material. The fabric wears well, does not fade, peel or crack, and may be cleaned with a damp cloth.

When plastered walls are in good condition and warrant the expense, stillness a little song was heard. It began with a long high note, tripped down and down, and died away, softly, sweetly, into the air.

At once from the other side came another note—a sharp call, and out of the nest-door popped four little heads with big bobbly eyes and wide-open mouths. The lovely song of the father bird had only soothed them to sleep, but when mother called like that—then there was something worth waking up for. Out came the little heads, and in a flash the mother was there with a caterpillar in her beak, and away the mother-bird flew, while into the throat of the nearest it went, the four heads vanished into the darkness of the nest.

"Peep!" Again came the call; again the heads appeared. This time No. 2 swallowed the titbit, and all was quiet as before. For an hour the children lay and watched. Sometimes the mother would come with grubs or flies, and sometimes the father, until at last all were satisfied. Then the willow-wren sat again on the bramble-bough and went on with his own little plaintive song.

At last the children could keep still no longer. They jumped up and looked round for the fairy Spring.

Nowhere was she to be seen! Out of the glitter at noon, ringing

flat oil paint may be applied directly on the surface. Though costing more at first, this finish wears well and justifies itself in the end.

When a wall is of wood, no matter how rough or unsightly, it may be painted in one of the oil colors advised for any interior wall. Or it may be covered with wall board, which may be painted or papered.

Wall paper always makes a delightful wall finish. Usually a plain or a two-toned paper is the wisest choice, and one of these papers is what I should select myself in furnishing most farmhouses.

EFFECTIVE WALL PAPERS. But occasionally just the right figured paper may be used. This should be selected for its quaintness and should show a pattern similar to those used in English chintzes or the paler calico designs. Foliage papers of the smaller and less elaborate designs may be used and these should be very pale and of a neutral gray or putty color, without spottiness.

In choosing any sort of figured paper, as large a sample as possible should be fastened to the wall for testing purposes, since many designs are hard on the eyes when actually covering the whole wall.

But unless professionally guided, very few of us are able to choose a desirable figured paper. And so, since the plainer ones are in really better taste and allow more leeway in the rest of the room furnishings, I should advise the use of one of these smart plain papers.

As I have said, the plain papers may be understood to include the soft tones and the two tones. In these latter may also be included the pale neutral papers showing black crossbars, stripes and dots. These are very effective and result in a practically one-toned wall.

The tones to choose in wall paper are ivory, tan, cream, putty or any pleasant pale gray. The paper should show a flat, unglistering surface, and when another tone is used it should be velvety in texture rather than metallic. In the soft tones, select stripes, dots, crossbars or small vine effects. Some unglistering ceiling papers in powder design make admirable wall covering at low expense. As a rule, unless the ceiling plaster is very uneven, a plain flat-finish paper a trifle paler than that used on the wall is the best choice. But do not be overly troubled about uneven plaster. This is the day of hand-made things. Do not try to make your farmhouse too sophisticated and ready-made looking.

In selecting a wall tone, whether it is to be paper, tint or paint, it is a good plan to decide on one pale enough so that it is possible to do the ceiling in this tone too. If a tan or a deeper gray is selected, the ceiling should be done in a tone a few tints lighter. Do not run borders of any description on your walls. If it is necessary to have some finish at the ceiling turn, use the plainest sort of picture molding and paint it to match the walls or the woodwork.

TREATING THE WOODWORK.

The woodwork should be considered a part of the wall treatment, and since all walls should be made to take their place as effective backgrounds, the woodwork should be pale and neutral and lighter than the walls, or exactly the same tone as the walls—with one exception; and that is when the woodwork is made to count decoratively by painting it a color contrasting with the walls which are either neutrally plain or unobtrusively figured.

Colors that may be advised for such painting of the room woodwork are apple green, olive green, peacock blue, gray and a very dull soft yellow. One of the most attractive farmhouse interiors I have ever seen depended largely on its woodwork of olive green for its charm. There was a great deal of this woodwork in the living room—cupboards, shelves, latched doors, fireplace surroundings, and in combination with the walls of ivory, the woodwork did much toward furnishing the room.

When plastered walls are in good condition and warrant the expense,

down a ray of sunshine, there came a clear silvery voice:

"Good-bye, children, good-bye! My work is done for this year; when the roses come out, then Summer comes in. . . Good-bye. . . Good-bye. . ." —Olive Hocken in "The Pageant of Nature."

Warm-Weather Shipping.

This is the season when greatest care should be given the loading and shipping of all kinds of livestock but more especially hogs. A sudden rise in temperature, increased humidity, too much bedding, overloading, a stock car sidetracked where all breeze is cut off by other cars, buildings or sheds may easily mark up sudden losses by death of excessive shrinkage.

All livestock should be kept as quietly as possible before loading! Undue and unnecessary assorting, noise and disturbance should be avoided. Excessive manure should be removed from cars before fresh bedding is put in. Cars to be loaded with hogs should have no bedding other than sand which should be well wetted. Load comfortably full without overcrowding, yet too tight loading occasions festering which in turn causes increased shrinkage.

Time is gold.