

EFFICIENT FARMING

SOME THOUGHTS ON CULLING POULTRY.

I cull the flock all the year, but particularly I cull during the summer. My plan with poultry includes March hatching, in order to get early-laying pullets, and the culling of the old birds until the breeding flock kept over is composed of the best birds only. It takes twelve months to decide what are the best birds to keep for the breeding pen and summer culling is a very prominent part of the process of elimination. Starting with the pullets, which begin to lay in August and September, I band the earliest producers and if these birds show up well during the year they are kept for the breeding pen next year. It does not follow, however, that the earliest layer will make the best breeder. There are other considerations to be taken into account.

I band all birds that become broody, among the pullets, and add a second band as often as a bird repeats. The hen that shows a desire to spend too much time upon the brooding nest is never kept for the breeding pen. She is sent to market. I find it is about as well to ship the fat hens to a city commission house, as my Rhode Island Reds bring good prices during the summer. Earlier in the season I cull out undesirable birds and dress them at home and find a retail market in a nearby city. This can be done to advantage during the slack season but during the summer there is too much to do on the farm, so I ship off the hens as rapidly as they are culled out. On the poultry place where a thousand or more hens are kept, there will be much culling, so we have a pen particularly for the culls. As rapidly as an undesirable is found she is added to the culls. These birds are fed a fattening ration and shipped off to catch the best market.

Some of the points which I follow in culling, in addition to the broody test, are probably well known to most poultrymen.

I am always on the lookout for signs that indicate that a bird has passed her days of usefulness. Occasionally a bird will develop lameness, caused by some obstruction in scratching or by flying down from the roost. This may in time turn into bumble-foot, so I believe it is best to ship such birds. The lameness is nothing that hurts them for the table in any way, if they are taken off right away. Once in a while I find a bird that shows a lengthening of the upper part of the beak, or one that has had an accident to one eye. Such birds may be the best layers, but it does not pay to bother with them. Birds that show the pretty, unruddied coat after they should have been laying for many months, are practically non-producers. During the spring and summer I cull out many birds that have handsome feathers, golden shanks and beaks and a general air of good looks. Such birds are butterflies of fashion and the poultryman cannot afford to keep them.

The head tells a lot about a bird's productiveness. Get rid of the bird with the crow head. Keep the ones that have full bright eyes and red combs. The sunken eye is a sign of low vitality and indifferent productiveness. I pick up a hen and glance along her back. If the eyes stand out like buttons, she is probably a good one. Still, I do not want the hen that shows the heavy beef-type of head.

The culling season extends from September to September. I usually find a few pullets early in the fall that I do not wish to keep, so I dress them and sell to the retail customers, or, if there are enough of them—I may ship them off to catch the good prices that prevail around the first of October. Later, and all during the winter, the culling continues, then during the spring, I usually ship quite a bunch of hens. The summer is the time, however, when the cleaning out is finished, in fact, the greater number of birds that are not to be carried over are sold during August and September. I try to get rid of poor producers as fast as they have passed their days of usefulness.—Chas. H. Chesley.

RASPBERRY MOSAIC.

For the past two seasons raspberry growers in Ontario have been paying special attention to this disease. It is unnecessary to emphasize the importance of mosaic, but it may be advisable to stress the fact that a careful system of eradicating the diseased plants from commercial plantings will yield a good economical control. The situation is much more hopeful than it appeared a year ago.

Symptoms.—In looking for plants affected with mosaic the leaves on the

young canes are most suitable for observation. The symptoms will first be found during June and will gradually become more pronounced as the season advances. On the older leaves normal dark green, raised or puckered areas can be observed scattered over the leaf surface, the remainder of which is a yellowish green. The younger leaves present a more mottled appearance with the dark areas showing prominently; more often these are not raised or puckered.

Low dwarf bushes with yellowish foliage usually signify the presence of mosaic in an old plantation. This does not apply to parts of the plantation where the ground is low or in which the soil condition is such as to give rise to sickly plants. Such a condition can be differentiated from mosaic by the lack of true mosaic mottling on the leaves.

The fruit from diseased plants is seedy and lacks flavor.

Control.—The most permanent control measures for the elimination of mosaic from raspberry plantations begin with the planting of disease-free stock. The practice of taking plants from an old planting irrespective of the amount of mosaic present must cease if the disease is to be controlled.

Old plantations with mosaic present should be left alone and new plants secured from a well recommended source. Exception may be taken when less than 5 per cent. diseased plants are found. In such a case it may be advisable for a grower to thoroughly eradicate the diseased plants from a few rows in his plantation in order to secure his own nursery stock. But the wholesale eradication of diseased plants from a commercial plantation is not recommended as a general measure for the control of mosaic.

On setting out a new plantation with disease-free stock, it is advisable to have it isolated by 50 to 100 feet from any other raspberries, cultivated or wild. During the first two years this patch should be carefully inspected several times and all diseased plants removed, root and all and carried to some distance from the plantation where they can be destroyed. It is quite safe to replant the gaps caused by roguing as infection does not come from the soil. The second and third years after planting, the patch should yield a high percentage of disease-free stock, and if the grower is desirous of disposing of such stock he should apply to the Division of Botany, Central Experimental Farm, Ottawa, or to the Dominion Laboratory of Plant Pathology, St. Catharines, Ontario, for inspections with the view of obtaining a certificate of freedom from disease.

Any information concerning this or other plant diseases will be gladly furnished on request to either of the offices mentioned above.

Control of Wireworms.

An outbreak of wireworms is reported in some parts of the country. Relative to this pest the Chief of the Division of Field Crop and Garden Insects of the Dominion Department of Agriculture, in his pamphlet on "Wireworm Control," says that the insects occur most frequently in bottom lands, in soil poorly drained, and in pasture lands. Susceptible crops, such as potatoes, corn, onions, etc., planted in sod land, frequently suffer severe injury. On bench lands, or in well-drained soils, the injuries are not so severe, and by a proper selection of crops in rotation much may be done to avoid damage. The principles of soil fumigation was gas-forming materials have certain virtues, but are not recommended under field conditions, owing to the cost and the danger of injury to plant growth. Soil treatments with commercial fertilizers will often enable plants to outgrow an attack, but will not destroy the wireworms. Trapping adults and larvae by using baits has rendered relief on valuable land, and with crops having a high cost of production, such as market garden crops of onions, tomatoes, etc., but with grain, grass or field crops, cultural methods of control must be relied upon. Crop rotation, deep plowing and thorough cultivation, together with a judicious selection of crops, will offset injury to a very marked degree.

A weekly change of water in the radiator of a tractor is good for the cooling system.

To make a gallon of arsenical spray material take three level tablespoonfuls of arsenate of lead and put it in a cup. Then add a little water and stir until you have a smooth paste, after which add to a gallon of water and it is ready for use.

The Dairy

For the past ten years I have been following the practice of stabling my cows at night during the summer. I think it pays.

For years I have felt the need of producing more stable manure to build up my soil. While I use a considerable commercial fertilizer with my crops, I can not get away from the idea that stable manure is the best fertilizer for the farmer to use.

By stabling my cows at night during the summer I have been able to more than double my manurial output. Last season the manure made from the cows' stable during the summer covered over seven acres of land with a top-dressing previous to sowing the wheat. Had I allowed my cows to go back to pasture at night I would have lost most of this manure.

Stabling the cows increases the labor somewhat, but I am very sure that the manure pays for the labor several times over. I use all the bedding in the stable possible as an absorbent. My stable is cement so I am able to conserve the liquid manure. I use a liquid-tight litter carrier so that all the manure from the stable is carried out some distance from the barn. When cleaning the stable I clean out the liquid along with the other manure and dump on the pile. This gives the straw a chance to absorb the liquid and improves its fertilizing value.—L. R.

Farm Labor Returns.

"A stitch in time saves nine" is an old adage which applies to every kind of human effort, but it applies with more force and uniformity to farming than to many other lines of effort. This is true for the reason that there are more conditions to be met in farming over which we have no control, than in most other kinds of business.

The weather is one of the most serious of these handicaps. It is never ideal from our standpoint, yet somehow most of us fail to take this fact into account in making our plans for the season's campaign. Right now many farmers who have delayed plowing for late planted crops are worried because of a lack of moisture which makes the plowing hard and the crops uncertain, while the farmers in the same communities who got their ground plowed early for the same crops were able to conserve needed moisture against planting time and kill the weeds in advance of the cultivating season. The cost of plowing early when soil and temperature conditions were better for the work was less, and the probable returns on the labor invested are much greater.

The farmer who planted a few kernels of corn in a pan under the kitchen stove and concluded it was all right for seed, and finds on digging into the hills in the field that only about half of it is growing, is bemoaning his luck—and replanting his field with the certainty that the return for his labor will be less than that of his neighbor who made an ear test of his seed.

The same truths apply all along the line. Maximum labor returns on the farm are the result of careful planning, which takes into account the handicaps that are more than likely to be met.

Poultry

In a general way hens need about as much care for heavy egg production in the summer as in the winter. During a hot summer the worms go deep and often the grass becomes tough and dry. Excessive heat on the range and in the laying-house is often as detrimental to heavy laying as the severe cold of winter. A good dry mash can be made of equal parts of bran, middlings, corn meal, ground oats and beef scrap. Two parts wheat to one part corn makes a good summer scratch feed ration.

If you have plenty of sour milk the proportion of beef scrap in the mash can be reduced one-half. Provide plenty of fresh water and place the fountain in a shady place. If green feed is lacking on the range it often pays to have a row of Swiss Chard, and occasionally cut a few bushels of succulent leaves for the hens. Grit, charcoal and oyster shells are also necessary in keeping the hens healthy. In the fall the hard grain ration can be changed to equal parts of wheat and corn.

July.

Lazy haze and golden daws
Of July.
To lie and dream near a running stream,
In the wood hard by.

To do and dare, to love to share
The things I may,
With all the folks for whom I care,
Along the way.

To learn, and yearn for all the best
Life holds in store,
July gives me a rare bequest,
I ask no more.

Motorists Will Help to Preserve the Countryside.

The Motorists' League for Countryside Preservation is the name of a new automobile organization which has been formed for the unique purpose of trying to maintain the scenic beauty of the land in its original state.

The programme of the league is as follows: Care in making and extinguishing camp fires; elimination of useless destruction of tree and shrubbery and the cleaning up of all sorts of refuse, papers, and litter after an open-air meal has been enjoyed or night camp made.

Members of the new organization have been asked to take this pledge: "I will make every effort to leave the roadside in such condition that the pleasure to be derived from it by others is not lessened through any careless act of mine."

Particular stress is laid by the officers of the league on the important necessity of constant precautions against the spread of fire in forest regions. All motor tourists, of whom there are literally millions on this continent, are urged to refrain from leaving camp fires burning because of the possibility of the spreading of the flames with an ultimate loss of a whole forest to the nation.

One of those who have consented to be a charter member of the new league is President Harding of the United States. Others have lined up with the organization because they realize that a desolate, firewept district has no appeal for the touring public, let alone the effect it has on trade and industry.

The New in Nutrition.

A short time ago we figured up the proteins, carbohydrates, fats, and the calories in foods and made up a balanced ration therefrom. This was the basis upon which we learned to feed our animals and we thought we had things down pat. We also tried it out with humans, but the great obstacle is that too many of us will always eat what we want rather than what we ought.

However, these balanced rations did not always work, and expert experimentation on rats, guinea pigs and such like, indicated that what we believed to be perfect foods were not as perfect as we thought they were. It was found that these otherwise perfect foods lack in the vital essentials of food, the vitamins.

Now these vitamins are something new as far as the name is concerned, but we have been eating them all our lives and did not know it. It just goes to show that we can not always tell just what we are eating.

But as mysterious as these vitamins are to us ordinary eaters, food experts are showing, by the feeding of foods containing these life-giving ingredients, that they can produce healthful results; and by eliminating them from food, they can cause disease.

Since the findings of the experimenters many of us are eating yeast to put zest in life and are renewing our interest in cod-liver oil as a weight increaser. Tomato juice is being imbued with greater enjoyment, and hen fruit, sunny side up, will more frequently adorn our tables. Milk will supplant other beverages and green vegetables are gaining a new importance. All this is because of the vitamins they contain.

These successful tests in nutrition indicate that perhaps in the future visits to the doctor he will hand us a bill of fare instead of a prescription. Of course, his other bill will also be presented, as usual.

But in all seriousness, the discovery of these new things in nutrition is undoubtedly a great step forward. These findings will add greatly to our efficiency, to our real enjoyment of life, and to the results we get from live stock feeding, if we will but use them.

The Back Fence.

To know that I've a friend like you
Puts in each rose a bit more dew.
More high delight in each bird's trill,
More red above the sunset hill.
It tints the bluest sky more blue
To know that I've a friend like you!

But, oh, I wonder frequently,
What sort of neighbor do you see
When past our fence you look at me?
—Mary Carolyn Davies.

When a bird is killed, bugs rejoice.
When replanting, it always pays to keep a ball of dirt around the roots of the plant you move.

St. Kilda, Britain's most remote island, with a population of eighty souls, is cut off for about eight months in the year by the stormy seas on its rocky shores.

Most of the churches in Naples have three or four cats attached to them. They are kept for the purpose of catching the mice which infest all ancient Neapolitan buildings. The animals may often be seen walking about among the congregation or stretched before the altars.

There Are Times When You Need Music More Than the Multiplication Table

Dr. A. E. Winslip, of Boston, hit the nail on the head when he said in the course of a recent address, "It is beyond anybody's power to tell what it has meant to our country to have boys and girls learn to sing, for you sometimes need it as much as you need the multiplication table or the ability to spell 'eleemosynary' or 'idiosyncrasy.' I wonder if any of you men have ever walked by a graveyard on a dark night all alone. If you have, did you recite the list of irregular verbs? You whistled! That is the only thing on earth you do when you are there. There are times when you need a whistle more than you do the multiplication table. We want our boys and girls to get ready for just such opportunities. Get ready, for when you need the aesthetic side, you do need it."

Enlarging on this subject Dr. Winslip said further: "Rightly used there is more discipline for mind and heart, more discipline for success and enjoyment, more discipline for character, in learning to sing than in learning any other branch. Thinking and singing ought to be companions. What the public school wants of singing as a branch of instruction is the grandest possible teaching of the art, intellectually and fervently as a means of providing the best manhood and womanhood."

"Singing is to be taught the full child; his entire being, mentally, physically, industrially, is to be vibrant with health, elasticity, energy and cheerfulness. This branch is as important as any other branch, and unlike any other branch it needs to be taught from the lowest grade to the highest, in the ungraded as in the graded school. It is needed for patriotism, for morality, for health. It is needed to make discipline lighter, school attendance a pleasure, study more interesting, recitations more spirited. What wings are to the bird, what the blossom is to the plant, what the juice is to the fruit, the eye to the face, fervency to the voice, singing is to the school."

Beetle Fans.

The beetle fan is a British invention, in which the revolving blades are made with curved surfaces of a peculiar form, which impel the air in a direction parallel to the axis of the fan. It is said that virtually the whole power is utilized in making the air "travel," and very little in simply churning it up. It is believed that the invention finds practical application in the propellers of ships and airplanes. So early, prepare the ground for corn and roots; fifth year, same as first year. This four-year rotation will be found to materially increase the soil fertility, as no crop is allowed to occupy the land for more than one year, thus ensuring ample cultivation. The introduction of two crops of clover will prevent the growth of weeds, and the likelihood will be reduced to a minimum of any insect pest becoming established. The foregoing of course applies to arable land. A new piece of land, or an old sod which has been allowed to remain for a number of years, can be satisfactorily dealt with as follows: Break up the new land or old sod in late summer just after haying and cultivate until fall, when the ground should be plowed the opposite way and left rough for the winter. In the spring cultivate as frequently as possible, plowing again if necessary. The land may be planted to oats in the second year and seeded down as advised in the above rotation.

Protection Against Insect Pests.

With white grubs, wireworms, and cutworms, the three chief classes of soil-infesting field crop insects that cause most of the trouble in a mixed farming community, crop rotation—says Mr. H. F. Hudson, Assistant Entomologist at Ottawa, in Circular No. 2, "Field Crop Insects"—is regarded as a satisfactory measure consistent with good farming and insect control. A suggested crop rotation is consequently presented for a typical western Ontario farming community, where no specialization of any crop is in evidence, and where the aforesaid insects are present: First year, plant the field to oats or similar grain crops and seed down to clover; second year, cut the clover for hay, plow the field in the summer or early fall and plant to wheat; third year, seed the wheat to clover in the spring, which may be pastured in the fall or allowed to grow; fourth year, plow the clover

Only two or three plants should be left in each hill of melons, cucumbers and squashes. Wait until the work of the striped beetle is over, then thin the plants, leaving only the best to produce a crop.