

# 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 brooder. 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 time 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, unruffled 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 a rough 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



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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 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.

## 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.

When replanting, it always pays to keep a ball of dirt around the roots of the plant you move.

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.

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 Sunday School Lesson

JULY 15

Simon Peter—John 1: 35-42; Matthew 4: 18-22; 14: 28-31; 17: 1-13; Luke 5: 1-10; 22: 31-34, 54-62; John 18: 10, 11; 20: 1-10; 21: 1-23; Acts 2: 1-5, 42; 8: 14-25; 9: 32 to 12: 19; 15: 7-11; Gal. 2: 11. Golden Text—Lord, thou knowest all things; thou knowest that I love thee.—John 21: 17.

**LESSON SETTING**—Our study this week is the life of Simon Peter. It is the study of a great character in the making, of a great leader in the training.

**I. PETER RECEIVING HIGH PRAISE, MATTHEW 16: 13-18.**

V. 13. *The coasts of Caesarea Philippi.* "Caesarea" means vicinity of Caesarea Philippi, which was a city located north of the Sea of Galilee, and lying at the base of Mount Hermon. Jesus comes here to find a place of retirement with his disciples. The times are critical with Jesus. The multitude have failed to grasp the real meaning of his ministry and the religious class has become openly hostile. What about his disciples? Do they understand? That I the Son of man am? Son of man is Jesus' favorite name for himself. It is his title of humiliation. This first question is only to prepare for the second question.

Vs. 14-18. *Some say . . . John . . . Elias . . . Jeremiah.* These popular judgments recognize the greatness of Jesus, but not his uniqueness or his Messiahship. They seek to explain him by the past. His boldness of speech suggests to them John the Baptist or Elijah. His compassion reminds them of the tenderness of Jeremiah, Jer. 9: 1. *Whom say ye that I am?* This is the vital question. *Simon Peter answered.* Peter is usually first in word and action. *Christ, the Son of the living God.* The greatness of this answer is its acknowledgment of Jesus as Messiah.

Vs. 17, 18. *Blessed art thou.* Jesus is deeply stirred by the answer. It is an answer from Peter's own heart, in which God's spirit had been working. *Flesh and blood hath not revealed.* No person had communicated this truth to Peter. Whether did it spring from the Jewish idea of the Messiah, which Peter shared with his countrymen. *Thou art Peter, and upon this rock.* The meaning of Peter is "rock," and now Peter has given expression to a rock-like truth. It is the blessedness of Peter, not that he is the foundation of the Church, but that he had uttered the foundation rock of the Church,—the Messiahship of Christ. *Gates of hell.* No power of evil shall prevail against a church so founded.

**II. PETER RECEIVING STERN REBUKE, 21: 23.**

V. 21. *From that time forth.* From the time that Jesus' Messiahship is an acknowledged fact in the disciple band. *To shew unto his disciples.* It is one thing to recognize Jesus as the Messiah; another thing to understand how that Messiahship must be realized. This is what Jesus must teach his disciples now. *That he must go unto Jerusalem.* His Messiahship is a suffering Messiahship. Jesus does not speak of this suffering as a human result, but as a divine purpose, clearly foreseen and calmly faced. *Raised . . . the third day.* It is to be a triumphant suffering, ending in resurrection.

Vs. 22, 23. *Peter took him.* Peter is startled by this announcement, and in his horror at the thought, grasps the hand of Jesus. *Began to rebuke him;* a loving protest against the thought. What Peter says he says from true love of the Master. *Get thee behind me, Satan.* Peter's intention is noble, but very long. An offence. The foundation stone has suddenly become a stone of stumbling in the way of duty. *Savour not the things that be of God.* "Thou thinkest not with God."

**III. PETER RECEIVES A GREAT COMMISSION, JOHN 21: 15-17.**

Vs. 15-17. *When they had dined.* scene,—shores of Galilee. Time,—after Peter's denial and Christ's death and resurrection. *Lovest thou me more than these?* Not more than the other disciples; but more than the nets and the boat and the old fishing life to which Peter had gone back. *Thou knowest that I love thee.* Peter appeals to Jesus' knowledge of his inmost heart. In spite of his denial, he loves Jesus and he knows that Jesus knows of that love. *Feed my lambs.* Jesus had once called Peter to be a shepherd of those who are weak, as Peter himself had once been. Jesus appeals to Peter's love for the Master. *That he must go unto Jerusalem.* Jesus was to call him again to service. *He saith . . . the third time; no reference in this threefold question to Peter's threefold denial, but only an impressive way of recalling Peter in love from the past with its failures, to a great commission of love and service.*

**APPLICATION.**

*A Great Confession.* Some people are at their best when they utter their "first thoughts." A great preacher complained recently that too few Christian people acted upon their first impulses, but rather weighed everything so carefully that they became worldly. When Jesus asked Peter for a statement of his belief about Jesus, Peter gave utterance to his first thoughts, and said, "Thou art the Christ, the Son of the living God." v. 16. That was the answer for which Jesus longed. He knew that the scribes and Pharisees hated him, and the common people though they admired him, had no conception of his Deity. There here at last, one of his chosen twelve had risen to the supreme thought of God's purpose in Christ.

*The Impulsiveness of a Good Man.* There are several recorded incidents in the life of Peter which make us impatient with him. He was impatient to the point of being unstable. Verses 21-23 of to-day's lesson are in line with several other scenes in which Peter is seen in none too favorable a light. In Matthew 14: 28-31 we have an account of Peter endeavoring to walk on the water to Jesus. When

Jesus, on the occasion of the Last Supper, intimated that one of the disciples would betray him, and that they all would be scattered (Matt. 26: 31-35), Peter hastened to avow his love and his willingness to die for Jesus. When shortly afterwards Jesus was arrested, it was Peter who drew a sword and cut off the high priest's ear, Matt. 26: 51. These incidents all bear witness to Peter's impulsiveness. We need to remember that Peter was in the making. He was far from being sure of himself. Some of his impulses—such as his great confession—were good; others only served to show how immature he was.

*Peter's Fall* (Luke 22: 54-62). While the story of Peter's fall is not found in the printed portion of to-day's lesson, it will be necessary to study it briefly in order to understand the restoration as given in John 21: 15-17. One of the chief lessons to be learned from Peter's fall is the danger of over-confidence. *Peter's Restoration.* It is often said that conduct indicates character. No doubt in the main this is true but not always. Peter was not at his best that night when he denied Jesus. One does not make a man a liar, and one rash, weak act on Peter's part does not mean that he had no excellent qualities. In the memorable conversation in John 21: 15-17 Jesus made no reference to Peter's fall.

*Peter the Apostle.* Peter laid well to heart the lesson of his fall. His humiliation was complete, but his reliance upon divine strength marked his subsequent career. Acts 4: 13 makes strange reading after what we know about Peter. The mud has become rock. What had wrought this great change in Peter? Our answer will be found in Acts 4: 8, "Then Peter, filled with the Holy Spirit!" Peter no longer relied upon his own strength, but in divine aid.

**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 equal 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.

**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 severely 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.

When a bird is killed, bugs rejoice.

**Make the Rinso liquid first**

Do not put Rinso direct from the package into the tub. Mix half a package of Rinso in a little cool water until it is like cream. Then add two quarts of boiling water, and when the froth subsides, you will have a clean amber-coloured liquid. Add this liquid to the wash tub, until you get the big lasting Rinso suds. Then soak the clothes clean.

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## 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 sunny 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.

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

## 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 manure 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 it is able to conserve the liquid manure. I use a liquid-tight 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.



He—"It's awfully sweet of you to want to know when I have my vacation so you can arrange accordingly."  
She—"Yes, I want to take mine, when you're working."

## Opportunities in the Veterinary Profession

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