

EFFICIENT FARMING

Feed Your Hens Now.

A recent trip with one of our country representatives in poultry culling work revealed the fact that most of the farm hens are not being fed enough for efficient egg production. In fact, the thinness of the hens indicated that they were not getting enough to eat to maintain normal bodily conditions.

The hens are not purposely brought to this condition. Most farmers undoubtedly think that during the growing season the hens will scout around and pick up enough to maintain themselves in good condition. The hen is not like other farm animals, in that it does not show its conditions upon casual observation. Her feathers cover her body so that it is impossible to tell its condition without examination. Therefore a farmer's hens often get in poor shape before he is aware of it. The only thing that may be noted is that egg production has dropped off.

Under natural conditions the hen lays her quota of eggs in spring, gets broody, hatches out a brood of chickens and spends the summer in taking care of them. She becomes thin and in poor condition, ranging around endeavoring to get enough for herself and her flock. In the fall when the grains ripen she gets enough to put herself in fairly good condition to help her through the winter.

The hens that are now getting thin are either at the end of their laying for the summer or have stopped laying some time ago. Before they start again they will go through a moult, probably early in the season. And it is a known fact that early moults are not winter layers. For instance, a hen that moults early in August will very likely be a drone until next spring, whereas the one that has been busy laying all summer and delays her moult until late fall will soon recover from the moult and start producing eggs again.

The advisable thing to do is to have the flock culled so as to eliminate all hens that are naturally poor layers and would not pay a good profit even if well fed, and then gradually feed up the remainder of the flock. A good method is to allow the hens free range as before and then have available to them in a feed hopper the following mash: Equal parts by weight of corn meal, bran, middlings, ground oats. If sour milk is available give them plenty of it. If it is not, add to the mash three-quarters of a pound of commercial meat scraps to every four pounds of the mash. Sour milk is very valuable as a poultry feed and can be put to as good use for feeding poultry as any other way on the farm. It will replace meat scraps, which is the most expensive ingredient of the poultry ration, and also one of the most valuable.

Besides the mash, the hens should be fed in addition, scratch feed composed of equal parts of cracked corn and wheat. This scratch feed is especially desirable if the hens do not have a good range. If the range is good it may be dispensed with in some cases and the mash entirely relied upon to make up the deficiency in the amount of feed the hens get.

It is advisable to make all changes in feeding gradually, as any sudden changes may bring the hen into a moult. The short summer feeding through ranging has come about gradually with the drying up of the range due to the hot weather. In many cases the farmers have also recently cut out feeding grain to their hens because of shortage of supply. If this change would have been sudden it might have produced a moult at this time of the year. In getting the hens back to condition start the feeding gradually, otherwise it will produce a very much undesired moult at this time.

It is granted that many farmers are short of grain and are not in a position to buy food. However, on the other hand, there has never been a time in recent years since poultry feed has been so cheap. It is therefore a matter of good judgment to make the added expenditures to buy extra feed

at this time to get the hens in shape for the profit-making months. If this is impossible it would be wise to dispose of the flock entirely as it will likely be unproductive until spring and therefore be the cause of future loss instead of profit.

The good care and feeding of chicks is also urged as the care the chicks get in early life is often the determining factor as to the profitability of the bird in later life. A stunted chick will never make a profitable hen. It would be far more profitable to sell the chicks when they get to the broiler stage, than to expect them to produce a profit by egg production later on after they have gone through a semi-starvation period.

A good mash is also a valuable adjunct to free range for chicks. The following is a good mash: Two parts each of corn meal, middlings, bran, one part each of oat meal and beef scrap and one-fourth part charcoal. This mash should be placed in a hopper available to the chicks at all times. Sour milk is also one of the most valuable things that could be given growing chicks. If it is available it should be given before them at all times. When sour milk is used the amount of beef scraps may be reduced one-half.

A liberal feeding of either hens or chicks at this time of the year is "a stitch in time" which assures poultry profits later on.

Essentials in Sheep Raising.

1. Willingness to pay proper attention to the flock at the critical times of the year.

2. Production of lambs of early maturity that should preferably be marketed before the middle of July.

3. Control of parasites in the flock by the use of early lambs, rotation of pastures and flock management.

4. Protection of sheep from dogs, by community interest in sheep, by enforcing dog laws and keeping sheep in protected quarters at night.

5. Use of pasture to the greatest degree.

6. Feeding of corn silage with clover or alfalfa hay, supplemented with grain, to the breeding ewes at definite periods.

7. Selection of breeding sheep that possess merit in wool, as well as in mutton character. Constitutional vigor and health as a result of breeding and care are essentials in a foundation flock.

8. A pure-bred ram of a desirable type and quality should sire the lambs.

9. Cheap equipment, which offers protection, plenty of ventilation and a dry bed.

10. Marketing of products of wool and mutton with an understanding of market values and demand. Community organizations are beneficial in this regard.

11. Grow into the business, not go into it. A few bred ewes in the fall is a good buy.

12. Realization of the fitness of a flock on the farm, their value as weed destroyers, utilizers of rough feeds, and conservers of soil fertility.

The Dairy

The cow is not to be blamed for stringy milk. Bacteria are the usual cause of milk becoming stringy orropy after standing, and the water used for washing the utensils or cooling the milk may be the source of the infection; or the germs may come from the dust of the stable or places in which the milk is handled. Set a sample of milk from each quarter of the udder in a separate sterilized container, to determine if one quarter is affected, or if all yield normal milk. If all quarters prove to be sound, set a number of samples of milk in separate sterilized vessels and into each in turn put a little water from different sources, dust from stable, milk-house, setting place, etc. In this way the exact source of the infection can be determined and removed. Meanwhile, carefully cleanse, scald and sun-dry the milk utensils. Cleanse udder and teats before milking and keep the stables clean.

A good distance for planting the late large-growing varieties of cabbage and cauliflower is two and a half by three and a half feet.

In thinning the woodlot, where possible, spare the maples; they will do well in this country and will give you lumber, firewood, sugar and syrup.

Impure milk is notoriously one of the most fertile sources of disease, especially among infants and children; and it is well understood that most of the impurities come from improper handling. "Certified" milk—that is, milk that is drawn from healthy cows kept in sanitary stables, and that is cooled, bottled and transported under conditions approved by some responsible organization such as a medical society—is greatly in demand in the cities. Where ordinary milk brings 15 cents a quart, certified milk brings 22 or 23 cents and is hard to get even at that price. The most urgent need is for the farmer to understand what the city dweller wants and to supply it.

Educational Value of Exhibitions.

The exhibition season is upon us, in fact has already made an auspicious beginning in the western provinces. Elsewhere the furnishing process has been in progress for some time and arrangements are about complete for a "greater than ever" display. Probably in no modern feature of life has more noticeable progress been made of recent years than in exhibitions. Much attention is still paid, as is proper, to the lighter side, but objectionable features that in former times cut a great figure have been eliminated and more attention is paid year by year to education by illustration, demonstration and experimentation. This is particularly true of the larger fairs, but the more local exhibitions have also made remarkable advance particularly in attention that is given to sensible yet attractive features for the young. A marked feature is the increased interest in exhibition work in governmental quarters. Annually the displays, especially of the farm, improve and extend until now not only do the public have an opportunity to gain a fair knowledge of the work that is being done, of the advance that is being made in cultivation of the soil, in the betterment of live stock, in the improvement of poultry, in the

guaranteeing of wholesome food to the people, but the studious-minded have brought before them in a comprehensive way a whole college course. Nor is it alone by the exhibits that advantages in instruction are offered, but hundreds of thousands of bulletins, pamphlets, leaflets and other forms of publication of an educational nature find their way into circulation to be taken home and studied at leisure. In brief, the exhibition has become not only a place of entertainment but a school and college for the people, agriculturally and industrially in general. From Ottawa the announcement comes forth that this year a live stock exhibit is to be staged embracing as far as possible all the educational work that is being done in that particular line.

Barium Carbonate is the rat poison that specialists recommend. It is tasteless, odorless, and can be bought at any drug store. In preparing baits it is best to choose a food from each of three classes, meat, vegetable and cereal, and to combine it with barium carbonate in the proportion of one part poison to four parts food; then put a tablespoonful of each kind on a piece of paper or a board, so that the rat, traveling along his runway, finds a three-course meal prepared for him. One of the three baits is almost sure to tempt him.

Why Go to College?

Also, Reasons Why One Should Not go to College.

By Eugene Davenport.

Why should a young man, say eighteen years of age and a graduate of a good high school, spend four more years of his life and all the money he might earn and more for the sake of a college course and a degree?

This question every year presents itself to thousands of young people, and the way in which it is answered colors the lives of millions, if not indeed of the nation as a whole. The reasons for going to college, therefore, should stand clearly out before those who at this time of the year are making one of the few great decisions in life.

The real reasons for going to college may be briefly stated as follows:

1. To gain information which can be more systematically and widely acquired through a well selected college course than by any other known method. The world's stock of knowledge has now become so great, and the need along any particular line so specific and exacting, that self-made men have become almost an impossibility. This means that the time has come when the new generation should learn to live not simply by imitating the neighbors, but by possessing itself as far as possible of the world's stock of information and experience.

2. To know the method of research that may be depended upon in seeking information about a new subject requiring opinion and conclusion.

3. To gain instruction and experience in handling conflicting data, in discriminating between facts and appearances, in weighing evidence and in forming safe judgments as to the principles that are indicated by the facts.

4. To train the intellectual faculties to obedience and precision, as the athlete or the skilled artisan trains his muscles to the most delicate service and the most accurate judgment.

5. To acquire that knowledge of the sources of information, that familiarity with intellectual processes, that command over one's faculties and that independence of sound judgment that distinguish the educated from the uneducated man.

6. To learn the laws of health and to train the body as well as the mind in such ways as shall prolong life, mind and health and provide a good machine with which to do one's work and to enjoy the one life that has been given.

7. To form acquaintances with men of parts and influence all over the world, and so to multiply one's opportunities and advantages.

8. To prepare for serving the world to the very best of one's powers, and so to pay the debt that every generation owes to those who have gone before.

The list might be indefinitely prolonged, but these are the chief considerations that should stand clearly out in the mind of a young man, and it makes no difference whether he comes from the farm or the city in the advantages which he may realize from the proper preparation for life.

An analysis of these eight considerations will show that all but the last are what might be called "personal advantages"; that is to say, they relate directly to the welfare of the individual and tend to make it easier for him to get ahead, to make his mark, to reach distinction, to assume leadership, to get to the top, or whatever else the unworthy motive might be called that seeks to get and hold some advantage over our fellow man that he can not fairly meet, and against which he can not protect himself in the battle of life.

So we add the last point, which is service. The education which this man is to get in college is mostly given to him as a present. He pays certain fees, to be sure, and he buys his books, food and clothing; but the college was there before he was born, and by men,

who wanted to see a better world. If it were not so, there would be no college to which he could go.

It would be a sorry problem if these young people seeking an education today were obliged to found and build their own colleges, gather the faculties together and pay them and then buy and install the necessary equipment in the way of books and laboratory apparatus. If they had to do all that, they would be too old for colleges before they had the institutions half ready for courses.

Now, by any count, the fact of having a college at all creates a debt which these young people owe and which they must pay by service of some kind. Not only that, but they enjoy many other privileges because of the labor of those who have gone before. The forests are cleared, the stumps taken out, the stones picked off and the ditching is largely done. The railroads are laid and many another hard pioneer job has been completed by those horny-handed sons of toil who preceded us and who worked to make a world ready for living.

The world is not finished yet and he who would take all the advantages which have been provided by those who have gone before, but will add nothing himself to the world's stock—that man is not fit to go to college. If he presents himself, he should not be admitted. And if he is admitted, he should be kicked out the moment it is discovered that he intends to absorb everything possible to himself and to give nothing in return. We are not training a few thousand young men in order that they may stand on the heads and shoulders of the masses to their exploitation.

Our colleges are supported by people who get no direct advantages from them. There is not a college graduate to-day who does not in some measure owe his education to citizens of all classes, even to the washerwoman a hundred miles away, for the tremendous cost of education is laid upon all classes of society. Everybody helps to pay the bills; a few people only reap the direct advantages, and the obligation resting upon them is heavy indeed to return to the public in one way or another in the form of service a very large share of the advantages which they have acquired through education.

There are certain considerations that should not enter into a young man's head as reasons for attending college. Some of the chief though erroneous reasons sometimes given for going to college are the following:

1. Because one's chum is going to college.

2. To get rid of work and stave off the day of assuming the natural responsibilities of life.

3. To have a good time.

4. Because it is "the thing to do" to go to college, and to "make a fraternity."

5. To get an advantage over society in general so that one can acquire more than his share of the world's goods and happiness, but without repaying in full for everything enjoyed.

There are many good reasons for not going to college. First among these are duties to dependents and a decent regard for one's health. There are instances in which the responsibility of the family is thrown upon the young man in such a way that he can not honorably avoid it, and in no case should health be sacrificed for a college education. Next to character and friendship, health is the greatest asset in life, and if a young man is forced to choose between health and a college course, let him forego the college course. This choice is fortunately but rarely forced upon an individual and most sacrifices of health are wholly needless, even foolish.

If the motive be fully worthy, and if the individual can secure the college training without too much straining and sacrifice, it is abundantly worth

The Sunday School Lesson

JULY 31.

Saul Teaching at Antioch, Acts 11: 19-30; 12: 25. Golden Text—Acts 11: 26.

Connecting Links—Antioch was, in the days of Paul, a great city. It was third of the cities of the Roman world, the "Queen of the East," and had been, before the Romans came, capital of the Greek kingdom of Syria. In modern times it is known as Antakieh, and is a small town of about six thousand inhabitants. It was built on the banks of the river Orontes, near where the Lebanon and Taurus mountains meet, and about sixteen miles inland from the Mediterranean Sea. It was still, in Paul's time, a Greek city, and its prevailing language was Greek, but there was a mingling in it of eastern and western ideas and customs and of the worst forms of eastern and western vice. There was a large Jewish colony, but Christian preachers had attracted and gathered into the church both Jews and Greeks.

After leaving Jerusalem Paul had gone to his native city of Tarsus, and had continued to preach the gospel in Cilicia and Syria. Barnabas, who knew him in Jerusalem, saw how valuable such a man would be in the mixed church of Antioch. A highly educated Jew of the Pharisees, a thorough Greek scholar, and a Roman citizen, he would appeal to Jew, Greek, and Roman. He had already the purpose and the ambition to carry his message to the outside world. Where could he have found a better starting point?

11: 19-30. They which were scattered abroad. See 8: 1, 4. Persecution had driven many from Jerusalem who carried their faith with them, and preached Christ wherever they went. The very means which were used to destroy the infant church were made in the providence of God to increase and strengthen it. Christianity has always been in greater danger from prosperity and wealth, than from persecution or poverty.

These first missionaries, driven by necessity, went as far as the coast cities of Phoenicia, which lay along the sea to the north of Palestine, and to the island of Cyprus, and to the city of Antioch. It was natural that at first they should bear their message to Jews only. Their Jewish prejudices were still very strong, and they disliked mingling with the Gentiles. Moreover these early teachers had the idea that the gospel, and the kingdom, and the province of future glory and power were for the Jews, and not for other people.

But some of them were men of Cyprus and Cyrene, Jews who had lived so long among Greeks and in foreign countries that their prejudices had broken down. The gospel appealed to them as something broadly human, not to be confined to one sect or nation. They spoke to the Greeks also, and the hand of the Lord was with them. Many were converted, and Jews and Greeks came together in the church and in Christian fellowship. The gospel was already breaking down national barriers. It was beginning to realize the dream and hope of human brotherhood. (See Eph. 2: 11-22).

This startling turn of events came unto the ears of the Church in Jerusalem. It was a difficult and delicate situation to handle, requiring unusual tact, patience, and discretion. Barnabas, himself a man of Cyprus, was chosen to have the direction of this new Christian community, the members of which were now, for the first time, called Christians.

He was glad. He was big enough in heart and soul to appreciate and to understand what was happening. He saw the grace of God, how that God, through the gospel, was building up a new race, which should be neither

Jew nor Gentile, but just Christian. He was glad and exhorted them to fidelity and whole-hearted devotion.

A very high character is ascribed to Barnabas. He was a good man, and full of the Holy Ghost and of faith. His mind and heart were open to the generous and broadening and warming influences of the Spirit of Christ. Since much people were being brought into the church, and the work was growing, Barnabas felt the need of a strong helper, and went after Paul to Tarsus. For one whole year they worked together and taught much people.

The date of Paul's coming to Antioch must have been about 45 or 46 A.D., about ten years after his conversion. We can imagine him at this time, a man of thirty-five or forty years, in the prime of life and vigor, and full of enthusiasm for the great cause which he had espoused. The best testimony of the work done by these two fellow-laborers is that, at the end of that year, they were separated by the Antioch Church preachers forth on their first missionary adventure into the regions beyond. A Christian community which can set itself to its own unfinished task, and at the same time set apart its ablest leaders for missionary work abroad, is truly growing.

Came prophets. The Old Testament prophets were first of all preachers of truth and righteousness. They were interpreters of the past, teachers of the people in law and morals, and sometimes predictors of the future. These New Testament prophets, however, seem to have given themselves chiefly to the forecasting of future events. It is significant that they occupy a very small place in the New Testament Church. The gospel of the Lord Jesus Christ is not much aided in its appeal to humanity by predictions.

Agabus, however, did predict a famine which came to pass in the days of Claudius Caesar. This statement helps us to date the events of Paul's life, for Claudius reigned from 41 to 54 A.D. We know that there was famine in certain parts of the empire during his reign. In Judea, Josephus tells us, there was famine in the year 46 A.D.

This prophecy of Agabus led to a generous resolve on the part of the Christians of Antioch to send relief to their famine-stricken brethren in Jerusalem, and that which they contributed out of their comparative wealth was carried up to Jerusalem by Barnabas and Saul.

12: 25. Returning, when they had fulfilled their mission, they brought with them John Mark. Barnabas' sister's son, who was their companion on the first missionary journey, and was afterward the companion and friend of Peter, and writer of the gospel which bears his name.

Application. Barnabas recognized the marks of the Christian even when they appeared in an unexpected place. As Dr. Jowett writes: "He knew the old fruit, even when he found it growing in a new garden." This is not by any means an easy thing to do. We associate Christianity with certain outward accompaniments, and when these signs are wanting we are not disposed to believe that the genuine article is there. When, after the resurrection of Jesus He appeared to Mary, she did not recognize Him at first. Her appearance was different, and she was not prepared for the change. All honor to Barnabas, that when he found Paul doing a most unexpected work he could take up the words of the psalmist: "This is the Lord's doing, and it is marvelous in our eyes."

the four years of life and all the money really needed to get it.

In general, the four years from eighteen to twenty-two are largely wasted by most young men, and almost any right-minded individual can be farther along in every way at the age of thirty if he takes four of his years for study, than he would be if he plunged at once into the modern world without the best preparation a college course can give. He may even well afford to earn his own money, but if he is to do this he should expect to take more than four years for the work, else he is certain to sacrifice either his preparation or his health.

Something has been said about paying one's way in the world, and something has been implied about character. We are beginning to talk somewhat frankly these days about the soul of man, for we are recognizing that there is a vast difference between what is inside the different bundles of live clay we call men.

It is the whole man that needs educating—body, mind and soul, and this is what the college is founded to accomplish. Therefore, let each man examine himself to see whether he has the stuff that real men are made of, and if he has he need have no doubt that a college course will "pay." If, on the other hand, he does not possess the disposition and the desire to work and at the same time study quantities of moral character, he may be equally certain a college education will not pay either him or the public which foots most of the bill.

Good hay will be scarce this winter; not a pound should be wasted.

There will be a light mixed hay harvest in the Maritime Provinces and Quebec as well as in Ontario and Alberta this year. Hay is also below an average in the United States. The Ontario farmer who has a barn full of sweet clover hay will have reason to congratulate himself on his good fortune before winter is over.

Horse Sense

It is annoying to have one horse pulling ahead of the other in a team. A remedy for this is to take an extra rein, or a small strap will answer the purpose. Snap it in outside bit ring of fast horse, then pass through inside bit ring under chin, then through the inside hame-ring. Take the end back and tie it to inside end of whiffletree of slow horse. When the fast horse pulls ahead his bit will be drawn by the receding whiffletree of the slow horse, thus restraining him.

Another good method I have tried is to shorten, about six inches or more, both reins or lines to be buckled on the fast horse's bit ring, both on the outside and the inside. This will help wonderfully in equalizing the pull.

Fly screens for the stable windows will prove a good investment.

Don't try spraying potatoes with lime sulphur; it is worse than useless.

Horses will get little rest if shut up in a close stable these nights; it may be as hot outside, but the air is fresher.

Ice on the farm is not a luxury these days; it is a plain necessity. Arrange now to put up an ice house—any old shed will do—and make the hot days cool next year.

The soil should be moist and well prepared for planting, otherwise transplanting from the seed-bed into the garden or field may not be successful unless plants are carefully watered in.

White or light colored stalks of celery are secured by blanching, which consists of growing the plants in darkness so that the coloring matter of the stem is destroyed. Blanching also makes the stalks more crisp and tender and improves the quality.

3 Critical Periods for FALL WHEAT

1. At Seeding Time. Delay seeding to escape the Hessian Fly. Use fertilizers to catch up wheat growth.
2. In Winter. Produce good top to protect wheat, and good rooting to overcome spring heaving. Fertilizers produce top and roots.
3. At Heading and Filling Time. Force early wheat growth by fertilizing at seeding time, and escape drought and heat injury.

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