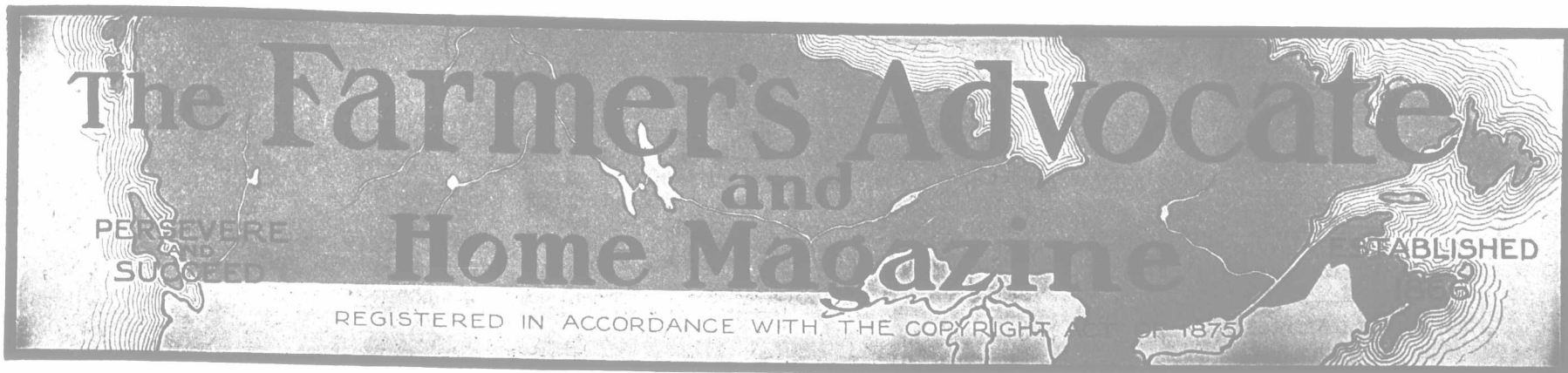




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## EDITORIAL.

What did it cost you to produce a bushel of fall wheat this season?

Rural-life improvement is being accomplished by those who live in sympathy with it.

To have genuine respect for the life and business of the farm, is to lay the foundations of success and satisfaction.

A man with ten or fifteen feet of sound silage in the bottom of his silo in July or August can afford to snap his fingers at dry weather.

To what extent and why are we warranted in growing fall wheat on land worth, say from \$75 to \$100 per acre?

Two great needs: Knowledge, and a trained mind to grapple with the multiplying problems of the farm.

Dairy farmers whose operations have been the subject of a recent inquiry by "The Farmer's Advocate," are not content with a cow that simply holds her own.

A recent investigation by the Missouri Board of Agriculture discloses the complaint that the most serious condition in that State is the want of competent farm help within as well as without the house.

According to the United States National Grange, the farmer receives about 35 cents of each dollar that his produce earns, while the 65 cents are absorbed by the many handlers of his products before they reach the consumer. This should be reversed by getting the two in closer contact.

C. W. Pugsley, of the Nebraska Experiment Station has investigated the cost of crop production in that State, with the following result: Wheat, 54.9 cents per bushel; corn, 29.6 cents; oats, 32.5 cents; wild hay, \$5.37 per ton; clover, \$4.18 per ton; alfalfa, \$3.10 per ton.

After a careful and comprehensive study of farm conditions in Missouri, W. L. Nelson, Assistant Secretary of the State Board of Agriculture reports, as a powerful agency for good in the country, the agricultural and local press. The former, he declares, gives to each of its readers a free agricultural course by mail, and at the same time leads many a man to appreciate the beauties of the world about him.

The true value of live stock is clearly demonstrated in a dry season. Adverse conditions show the distinction between good and poor farming. In driving through the country, it is quite an easy matter to select the farms on which the crop is fed and sold in the form of meat or milk. It is equally easy to select those on which little or no stock is kept and no special effort made to keep up the soil fertility, everything being sold off the place in the raw state. On farms that are well manured and thoroughly cultivated fairly good crops are the result; while those that have been continuously cropped show a light crop and a lack of something, and it goes to indicate that the material lacking is good manure, which can be best supplied by keeping stock.

## Farming as a Learned Profession

Most readers are agreed that those engaged in the medical profession or in the practice of law, or the ministry, or teaching in public or higher schools and colleges, or keeping a set of books for a large firm, are following a learned profession, but comparatively few, either in towns and cities, or even in the country, think seriously of farming in that light. Agriculture has been too long looked upon as an occupation requiring only physical endurance and muscle. Too often has the farmer of mature years said, "I never went to college, and what was good enough for me surely is good enough for my boys." Then there are, in many districts, so-called educated farmers, who have made a failure of their business, and these are invariably set up as examples of the folly of schooling as a preparation for life-work on the farm. Forgetting that conditions change, there is often too great a tendency to do things as "father did them," though the methods may be antiquated, unscientific, and not now in the best interests of production. It is quite an easy matter to criticise the doings of others, and it is equally easy to overlook the failures on one's own farm, and see those on the farm of the college taught neighbor. If a specially-educated man settles on a farm, every operation performed on his place is watched by dozens of eagle eyes, and if he makes a success of his ventures, this success is seldom attributed to his trained mind, but rather to his hard work or to something providential; while, if he fails, the failure is always attributed to his education.

Time was when tilling the land was scarcely deemed worthy of being called a "profession," but this time is past. It is now known to be one of the best vocations, and every year is bringing fresh evidence that not only is it a profitable profession, but it is a complicated undertaking which is worthy of the best skilled capacity of the country. Learning is essential to mental training, and to understand the scientific principles underlying agriculture requires a well-trained mind.

Many are the evidences showing the need of expert knowledge on the farm. The soil is becoming depleted of plant food year after year. A knowledge of the soil constituents and of the rock which upon disintegration formed this soil, and the different constituents required by various plants for their best development, together with the approximate amounts of each taken by a crop, involves greater knowledge than many individuals in the so-called learned professions ever attained to. The principles of plant growth are a study within themselves. Soil chemistry and the chemistry of fertilizers are two very important phases of agricultural education, of which good use can be made on most farms. Then, there is Physics, a subject which comes very directly under agriculture. Look, if you will, at the increased yields derived from underdrainage, and then see if you can conscientiously say that learning is not necessary for the best development of the farming profession, for has not underdrainage received an immense impetus from scientific research in the Physical Departments of our colleges?

Weed pests are becoming more numerous year after year, and the untrained eye fails very often to detect new specimens, and, if they were noticed, they would go unnamed, and their habits and characteristics never widely known, were it not for learned men who make a study of these things. Every young farmer can, if he so desires,

obtain a knowledge of botany which will enable him to identify weed specimens, and, by understanding their habits, he can formulate an effective means of eradication. If more farmers knew the weeds, many hours of labor would be saved on farms, because, not being known, very often the very worst pests are allowed to become established. Education will remedy this.

All who have practiced it are unanimous in conceding the advantages of a regular rotation of crops. Where did this idea originate? Simply in learning. It was found that certain plants took from the soil and added to the soil different substances, while others did not; consequently, larger yields could be obtained by rotating them. How much greater would be the yield of grain in Canada if all farmers practiced rotation of crops, and yet there are those who seem to think that to farm requires no learning.

The problem of feeding animals—a potent one on every farm, requires the greatest skill if the largest net returns are to be made. Thousands of dollars are lost annually by unskilled feeding. A knowledge of the composition of feeding stuffs is essential, as is also a knowledge of the requirements of the different classes of stock. Is this not learning? Certainly it is, and too much of it cannot be obtained. The feeding problem alone is a study, and when mastered is an education within itself.

Fruit-growing, one of the most remunerative branches of agricultural enterprise, has been making rapid strides during the last few years. While growers have been increasing their plantings, fungous and insect pests have multiplied rapidly, until, were it not for regular spraying, very little first-class fruit would be produced. This very season is a good example of the advantages of caring for the orchard, trees sprayed carrying much more and much better fruit than those left to the ravages of insects and disease. A knowledge of the habits and life-histories of these insect and fungous diseases is necessary, in order that proper measures may be adopted in the treatment of them. This demands a study of Botany and Entomology. Each disease or insect must be attacked at its weakest point, and each must have the most effective remedy. These points can only be obtained through study. The cultivation of the fruit is a science within itself. Why is clean cultivation up to a certain time in summer, and followed by a cover crop, recommended? A study of the needs of the tree has shown that this is one of the best methods of supplying these needs. Fruit-growing, to be carried to its highest degree of excellence, requires a wide knowledge, which can be obtained only by study.

Poultry-keeping, regarded as one of the smaller branches of agriculture, but one that is coming rapidly to the fore, offers ample opportunity for the breeder to exercise his mental powers. New methods of rearing and feeding chicks come up every year, new diseases arise, and new methods of housing are frequently introduced. The old style of house, with its thick walls, warmth, and lack of fresh air, has been abandoned; even curtain fronts have been found unnecessary, and now we find the poultry wintered in an entirely open-front house and not seeming to experience any discomfort, and making better returns than formerly. This required study, and study leads to learning.

The principles involved in breeding either plants or animals have been made the life-study