

Wheat Raising and Land Fertility.

The continuous raising of wheat on any land will exhaust that land unless means are taken to keep up the fertility of the soil by putting back on it the elements that are taken off. Wheat naturally requires a rich soil and this led to the growing of wheat on the prairies of the west as soon as those prairies were brought under the plow. Wheat, too, was not bulky for the price it brought and could be easily transported. It could be kept for a long time and would not easily heat in the bin, as its starch content was not very high. This led to the putting in of wheat on all the land that could be cleared for it. The land was so rich at first that the farmers got the idea into their heads that it was impossible to ever exhaust the soil.

But it did not take more than two generations of farmers to take out of the land some of the elements that were not in too great abundance. On some soils the element present in least abundance was phosphorus, while in other soils it was potassium, more commonly spoken of as potash. All the prairie states began a generation ago to show the impoverishment of their soils, due to continuous wheat raising, and within twenty years after that some localities abandoned altogether the raising of wheat, while others had reduced the area. Gradually the wheat growing area has been shifting, first west and then northwest. Now the most productive regions are in the Canadian northwest, where the farmers have become firmly fixed in the idea that their soil is too rich ever to give small yields of wheat. But those that have watched the progress of wheat growing in other sections of North America know that exhaustion is inevitable.

Some day the farmers will be fully convinced of the necessity for following a fixed system of agriculture, such as is recommended by Professor Hopkins, of the Illinois Agricultural College. When that time comes, wheat raising may be again profitably carried on even on our high-priced lands. This rule should be followed, after the land has been brought back to a good state of fertility: For every pound of phosphorus, nitrogen and potassium taken off, put back a like amount. Some will say that perhaps it will pay to reduce the nitrogen and the potassium a good deal before beginning the process of putting back. But most of our farmers are not scientists, and the rule given is a safe one to follow. A man may indeed have in his land more potassium or nitrogen than will be taken out in many years, but he may not know how much he has. In fact, most men have only the vaguest conception on this matter. If for every ten pounds of such elements taken out, ten pounds are put back, the land will never decrease in fertility, though it may in humus. The supply of humus can be kept up by occasionally putting the land into clover and turning the clover sod. This will give not only humus, but also nitrogen.—Farmers' Review.

The Saving of Time.

The saving in cost of hauling loads to market over good roads compared with the same haul over bad roads has been strikingly illustrated again and again and with a fair degree of accuracy. But the saving of time in driving over good roads as compared with poor ones has not been given the consideration it merits. This saving of good roads applies with equal force whether they be used by the farmer in going to town in his light carriage, the automobilist or the bicyclist. It has been estimated that a half hour's time can be saved in passing over every five miles of good road as compared with the same length of bad road. As time has never been more valuable than it is in these days of the twentieth century here is another argument for the good roads movement that is often overlooked.

Selling by the Pound.

The custom of retailing such produce as fruits and vegetables by weight instead of by measure makes slow headway. In portions of the west, particularly on the Pacific coast, this method is very much in vogue; but east of the Rocky Mountains the housekeeper who buys a half peck of spinach will get a couple of double handfuls loosely thrown in, or thrice that amount snugly packed, as it happens. In some eastern cities families in the crowded districts are now paying as high as 8 cents a quart for potatoes, the equivalent of fully \$2.50 a bushel, while the producer gets only a quarter of that. Similar conditions prevail in the central west. Selling at retail by weight is common in Europe, and the custom is a good one. It is fair to all parties, and from the standpoint of the producer would mean a larger consumption, and this in turn a bigger outlet for the output of farm and garden. It is a subject worth agitating.

THE HERD.

Development of the Dairy Cow.

The present dairy cow with her wonderful capacity for giving milk has been developed from an ancestor that gave milk during only a few months of the year and then gave it in small quantities. The original cow compelled her calf to begin eating grass at

an early age and gradually decreased her flow of milk till, when the winds of autumn blew, the calf was making his own living from the dry grasses. Man has taken this animal and has developed in her a capacity for milk giving several times as great as was found in her in the wild state. People talk about letting nature take her own methods, but what would have happened to the dairy cow if she had been left to nature? We know by what is now the condition of cows in lands where no effort has been made to develop them. They give a pint or a quart of milk per day, except in the flush of milk-giving after the birth of a calf. The development of the dairy cow shows what can be done and points to still greater possibilities.

Value of Pedigree.

A pedigree is worth something, but not so much as some people seem to imagine. It indicates that the animal belongs to one of the established breeds. It is merely a guarantee of pure breeding but it is not a guarantee of any particular performance as to the production of milk or butter-fat. Its real value lies in the fact that it insures a good foundation on which to build the development of a herd. There are poor animals among the pure-bred animals, but the good animals among the pure-breds do not have in them strains of blood that are constantly pulling them off in some direction opposite to the one in which the cow owner is wishing to go. When a man buys a dairy cow with a pedigree he knows he is buying an animal with tendencies in the right direction so far as her ancestry is concerned.

Composition of Milk.

Milk varies widely in composition, depending upon the breed and individuality of the cow, stage of lactation and weather conditions. Food, as a rule, has little effect in permanently changing the proportion of the several ingredients. One hundred pounds of milk of good average quality should contain about the following amounts of the different constituents: Water, 87; fat, 4; albuminoids, casein, 3; albumin, .50; milk sugar, 4.80; ash, .70 total, 100. The total solids include all of the ingredients excepting the water.

Buying by Mail.

A Subscriber writes: Some people do not believe that money can be saved in buying goods by mail. But I wish to state from my own experience that within the last few years I have saved many dollars in buying by mail such goods as farming implements, household furniture, clothing, etc. Such goods can be shipped by freight, and as the mail order dealer offers them at a much lower figure than the local dealer, and as the charges on them do not amount to half the profit that is made by the local dealer, I can hardly understand why some had rather pay a few dollars more for goods at home when the same articles could be purchased by mail at a lower price and these extra dollars saved. Recently I was in conversation with a man who stated that we should patronize our local merchant and not buy goods by mail, even if we did lose a few dollars each year. Perhaps this man can afford to lose this extra money, but with me money is not too plentiful and for this reason I always try to make every dollar go as far as possible.—Wm. H. Underwood.

Sentences.

"If you wish a thing done, go; if not, send."
"Love your neighbor, yet pull not down your hedge."
"Poor men seek meat for their stomach; rich men stomach for their meat."
"Small cheer and great welcome make a great feast."
"A cheerful look makes a plain dish a feast."
"The soul is not where it lies, but where it loves."
"The way to live much is to live well betimes."
"Great hopes make great men."
"Be what thou wouldst seem to be."
"When a friend asks, there is no tomorrow."

Long Hours on the Farm.

On many of our farms long hours are still the practice, in spite of the fact that improved machinery has made it possible for one man to do the work of several. During the greater part of the year the work required should not be more than what can be done in ten hours. In the rush seasons it is different. Occasionally the work is so pressing that extra hours must be put in, but that is not a hardship to anyone, so long as it does not become the general rule.

Cholera and all summer complaints are so quick in their action that the cold hand of death is upon the victims before they are aware that danger is near. If attacked do not delay in getting the proper medicine. Try a dose of Dr. J. D. Kellogg's Dysentery Cordial, and you will get immediate relief. It acts with wonderful rapidity and never fails to effect a cure.

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