Making Market Butter.

The churn should always be scalded and cooled before being used. If this is neglected once the churn is damaged beyond repair. The temperature used in churning should be such that the butter comes in about three quarters of an hour. The churn should be stopped while the granules are still quite small. A few small particles of butter may be lost in the buttermilk, but with fine butter granules it is possible to hold 2 per cent more moisture in the butter in a very finely divided condition, giving the butter a much drier appearance. In washing butter a quantity of water equal to the buttermilk removed should be used. The temperature of the wash water should be such as will leave the butter neither too hard nor too soft for working. Butter should be salted in the churn whether the combined churn is in use or not. An easily soluble salt, not too fine grained should be used. It should be so applied as to be thoroughly mixed through the butter with the minimum amount of working. From three-quarters to one and one-half ounces will be required according to the condition and amount of moisture in butter and the demands of the market. After being salted and worked lightly the butter should stand until the salt has dissolved when it should be reworked and packed or printed.

Packages should be prepared by steaming and soaking in brine containing 1 per cent of formalin. Liners should be of the best quality of parchment and should be soaked in the same solution. The finish should be neat and the packages clean.—J. W. Hart.

The Debt-Making Cow.

There are a good many cows in the country that are making debts for their owners rather than clearing them of debts. The worst thing about it is that these debt makers are not known to be debt makers. They are tolerated and accepted on their face. A man with a good large herd of debt makers always finds a lot of work to do, but somehow or other his family are always lacking the things they think they should have. The only good thing to be said about these cows is that their milk swells the volume of the milk that goes to the cities and so keeps down the price the poor people have to pay. So far as the farmer is concerned the quicker these debt makers are sent to the beef barrel or the butcher's block the better.

Butter Molds.

The spores that develop into butter molds are said to be everywhere present and to require only the proper conditions to send forth the plant life that we know as mold. The required conditions are warmth and dampness. These conditions happen in many creameries and butter rooms in summer, when the ice has run low or disappeared altogether. The shippers of butter say that too frequently the cars that carry the butter are allowed to run out of ice and become both damp and warm with the result that the butter arrives at its destination in a moldy condition.

A New Milk Preservative.

The French are experimenting in the making of a milk preserver from which they hope great things. It is to have antiseptic properties and yet be harmless to the human stomach. If they are able to bring this about great things may result. They call the substance oxygenated water. It kills the microbes in the milk, but by the end of six hours it has itself disappeared, having changed into oxygen and water.

Some Guinea Hens.

Guinea fowls have been raised on American farms for a long time, but they probably have never received more attention than they are to-day receiving. Guinea fowls are easily and cheaply raised when they are given their liberty, as they are great foragers and prefer to hunt their own support if possible. The females are quite prolific layers, and it is reasonable to suppose that at some time their eggs will sell well in the market. Their smallness and brown color militate somewhat against them at the present time, as the buyers do not know the eggs well enough to demand them. It may well be believed however that if they were so common that they were constantly obtainable in the market they would soon be in demand. Where there is a flock of these fowls the housewives soon learn to use their eggs for high quality cooking.

The hens try to hide their nests, which are simply little holes in the ground. In these they lay numerous eggs. The birds however have the habit of the common hen in publishing abroad the fact that they have laid an egg as soon as that act is performed. The result is that it is not at all difficult for the owner of the bird to find out her laying place.

Every poultry fancier should have a copy of the American Standard of Perfection and learn to judge his own birds. Then he is little likely to send to the show any birds that will score very low.

Opportunities for Poultry Raisers.

To the farmers living within twenty or thirty miles of the large cities there are always opportunities that should prove very profitable. Great hotels are always ready to take consignments of poultry and eggs provided the consignments can be made every day the year round. One Chicago hotel was for some time trying to find a farmer that would furnish 25 dozen eggs a day at 25 cents a dozen. The contract was too big for any one of them to take. There were farmers that would agree to furnish 25 dozen of eggs a day through the laying season, but they could not promise to keep it up throughout the year. The knowledge of how to produce winter eggs is so lacking generally that few have the temerity to base a contract on the ability to do so. Few American farms have the equipment necessary to produce 300 eggs a day, even if the laying habits of the fowls are ever so well apportioned as to season. It will pay our farmers to so equip their farms that they can take advantage of the very profitable opportunities that so frequently pass by. In the old mythology Father Time has a lock of hair on the front part of his head to signify that whoever would make the most of time must be able to seize the opportunity as it comes and not as it goes. The farmer that is ready for the opportunity before it comes will generally find the opportunity coming his way.

Cotton Seed Meal and Pigs.

It is well for swine raisers to go slow in the feeding of cotton seed meal to swine. There is much in the bulletins about it from time to time, and new men are trying to find out how to feed it to the pigs and not kill them. The experiment stations can better afford to lose pigs than can the farmers. It is safe also not to take stock in the assertion of the wise fellow who can tell you just how to feed it successfully. He thinks he knows; but it is just as well to let him try it on his own pigs. When the stations have found sure a way of feeding it successfully will be time enough for the common farmer to risk killing his swine.

The Yield to Expect.

A farmer should have some fairly well-fixed idea of how much crop he should get from a certain piece of land and then hunt about for the reason if his expectations are not realized. It does not pay to be too easy with Nature. The exacting man is the one that gets most from her. We have been surprised to see certain men satisfied with the very meager returns they received from land. The returns were seldom more than enough to pay the expenses of growing the crop. Yet they were satisfied apparently and merely remarked, "Oh, well, that land never does better than that." The men in question belong to that group known as "hand farmers." That is, they farm by the use of their hands and not by the use of their heads. We know of a place where some of this kind reside. A man that farms with his brains came along and said, "How much corn did you get this year?" "About twenty bushels." "Why don't you get more?" "I don't know; the land never does better than that amount here." The man that farms with his head thought it worth while to find out for the sake of these farmers what was the trouble. As the land was rich in humus he asked one of them if he would use some potassium if he supplied it. He replied he would and he did. On the piece treated with potassium the yield the next season was at the rate of 65 bushels of corn to the acre. That showed that the land lacked potassium, yet the men that farmed with their hands had never tried to find out whether it lacked anything or not. Why could not they have done the work of finding out?

Some people are helpless in circumstances and others try to control the circumstances. Those that try to control the circumstances are wise, for the circumstances can generally be controlled in a remarkable degree, when a man sets himself about it. A farmer should not be contented with any yield less than a good yield, as the average yield is usually a money-loser.

There are few farms where the yields of crops cannot be greatly increased except those farms under the management of our most advanced farmers. The problem should be not how to increase the number of acres producing poor crops, but how to produce a greatly increased yield on the acres already under tillage.

How One Thing Changes Many.

A recent writer on Argentine agriculture says that were it not for alfalfa Argentina would occupy an unimportant place in the list of beef producing nations, at least so far as export beef is concerned. The people of the United States supposed that they had gained control of the English market and could hold it for all time. But along came the alfalfa plant and the South American was at once able to send beef to Europe to compete with American beef. One little thing like that changes the course of commerce, even of agricultural commerce. Up to the present time nations have been so careless of each other that one hardly cared to inquire what the other was doing. But the nation that finds a sharp competition arising where there was no competition before is forced to inquire what the changed conditions are that make it possible. We must henceforth compete with alfalfa in Argentina. That is the real fact. The beef is merely the way of marketing the alfalfa. But as a result of that one thing entering into the problem we may have to change our methods in several ways.

Cows on pasture should be fed some grain.

Covering Strawberry Beds.

Material should be laid aside for the covering of the strawberry bed, which work should be accomplished as soon as the ground is frozen hard enough to hold a wagon. Caution should be used against covering too early. Some seem to have the impression that strawberries are covered to protect them from the cold. This is not the case; for it must be patent to every one that six inches of straw or cornstalks will not keep out very much cold. If a thermometer were placed above the straw and below it on a winter day the two would be found to register about or exactly the same. The covering is put on to keep out the heat in late fall and winter when the plants are not covered with snow. The freezing and thawing of the ground is the thing to be guarded against.

If the covering is put on too early the plants may be smothered and killed, for growth is still going on and evaporation is taking place from the leaves. While this is the case, covering would kill the leaves in some cases and in others would encourage the growing on them of mildews. When the leaves are frozen later on is the time to cover. Then all growth is arrested and the covering cannot smother them. For the same reason the straw must be removed quite early in the spring before growth has set in.

It is not desirable to use for covering any kind of material that packs very closely. The keeping out of the air is not desirable, but the protection of the ground from the direct rays of the sun. Coarse straw held down by boards is good, and corn stalks are also used. Sometimes it may be found advisable to use a little straw below and cornstalks above, the latter holding the straw from blowing.

As to the advisability of covering there is a dispute, but it is doubtless true that the man that covers his strawberries is sure of a crop of berries the coming year; while the man that does not cover is not sure of one. We know of people in the latitude of Northern Illinois who never cover their vines at all and usually get fair crops, but we also know that on occasional years their beds in the spring are very sickly looking and the resultant crop is small.

Further north in the latitude of Wisconsin, there can be no question of the advisability of covering if a crop is to be expected every year. The oldest growers there declare that they would not try to grow strawberries without covering. In fact, a good many people in past years gave up strawberry growing there because they so frequently lost their beds in winter. But since covering has become general the result has been far otherwise.

As we go south the need for covering decreases but the practice in each locality will have to depend on experience. The locality that has for a long time grown strawberries without winter protection will continue to grow them that way. But there are always localities where the vines are not covered but should be. It is some work to do the covering, and for this reason the growers are likely to take the risk of not covering if that risk is not too great. Where protection is needed it pays to cover.

The Maturity of the Apple.

Some of our horticulturists are making a difference between the mature apple and the ripe apple, though the general public recognizes no such destinction. We will let our horticultural friends have their way, however. The apple is mature when it has attained its full growth. It is not ripe till it has become mellow with the operations of sunlight, heat and time. The mature apple is in the best shape for picking. If it be left on the tree