

from the soil, but that part is very essential and if the soil contains only enough potash, phosphoric acid and nitrogen for a few crops, these essentials are soon exhausted and must be supplied if the fertility is to be kept up. Fertility, in brief, is plant food, so conditioned that it can be taken up and used to good advantage by a growing crop.

The methods of restoring fertility to worn out soils are various, but the end is the same. If the food elements are present, but in an unavailable form, tillage may be all that is necessary. The soil is stirred and left exposed to the action of chemical forces through the year, and in this way potash, phosphoric acid and nitrogen are liberated from their insoluble compounds and become available. This is the action of summer fallow and the "watering" processes of the winter snow. Other methods are green manuring, the application of barnyard manure and commercial fertilizer. Of these something may be said at another time.

The farmer cannot become too familiar with his soil. Let him know it so well that he will have no dread of the earth when his life shall end. Study the acres more than surface deep. Who shall find out how far below the sod the wise farmers gets some of his wealth?—*Farmers' Review*.

NEATNESS ON THE FARM.

Intelligent observers have generally noted the fact that in every rural neighbourhood the prosperous farmers are almost invariably those who keep their buildings painted, fences in good repair, and their fields free from stones, weeds and rubbish. Of course, it may be said that men who have plenty of money can afford to spend it for keeping up appearances. But this is evidently not the full explanation of this coincidence of facts. Men who make money, especially in farming, are least inclined to pay it out merely for show. It may be safely put down as a general rule that the work performed by most thrifty farmers is in the direction of profit; hence, as neatness commonly goes with thrift, it is quite as likely to be one of its causes as one of its effects. There are exceptions to this rule, as to all others. Some farmers accumulate money still more rapidly, not by increasing their income, but by a system of grinding parsimony, by robbing themselves and cheating their families to put dollars in their purse. These are not examples to be imitated. The aim of most reasonable men is not only to make money, but in the mean time to live in a reasonable and comfortable manner. To accomplish these objects it is not difficult to prove that neatness is essential.—*American Cultivator*.

GRAZING AND SOILING.

If cows must graze, they should have pastures on which the food is plenty, and accessible with the least possible amount of labor. But it is not profitable to have cows subsist entirely by grazing, especially where land has much value, because it requires so great an area to support them. There is no way in which ground yields so little food as in pasturing. The surface may be covered over so thickly with grass, yet produce but little food, because the growth is so frequently interrupted and put back by the injury done by the constant cropping. As much food will grow on one acre, where it is fallowed to grow without molestation, as will grow on three acres when mutilated by being bitten off every few days, the circumstances being in other respects the same. The costliness of the grazing system was well illustrated by the statement of a practical farmer recently in a farmers' club. He said when he began farming, a few years ago, on 100 acres, he cultivated forty acres,

and had sixty acres in meadow and pasture, and found it difficult to keep stock equal to twelve cows. He has now adopted the plan of cultivating and gathering the food for his flock, and, as a consequence, has reduced his grass land to thirty acres, and finds no difficulty in keeping the equivalent of thirty-six cows, and has seventy acres of land to cultivate, instead of forty.—*National Live Stock Journal, Chicago*.

HAY HARVEST

Harvesting hay requires keen judgment on the part of the farmer, not that the process is a difficult one, but that the art of properly curing hay is not fully understood by all. It is necessary to use the air as well as the sun to cure it to perfection. The simple fact that grass is dried does not signify that it has been cured, for the quality of the hay is increased or lessened according to the method in use during mowing. How often do we notice the mower passed over the field, and the hay left where it was thrown for two or three days at a time, being "cooked" in order to avoid rain only when the matter was compulsory, and the degree of carelessness on the part of hay-makers in harvesting is carried to an extreme. To cure hay as it should be is to merely preserve the juices or nutritive properties, and it is important to dry it in the shade if it could be done, but as farmers cannot be expected to do that with their hay crops they should do the next best thing, which is to keep it well shaken as much as possible, and leave it in the field for as short a time as will be sufficient to render it fit for storage. As soon as it is finished place it in the barn without delay, for rain is very injurious to hay, whether in "cooks" or spread out in the field. If it gets wet it may be dried again, but only at a loss of quality. In curing hay, therefore, do it quickly, keep it in motion with a todger, store it early, and do not allow it to be fed without passing through a cutter.

CURING CLOVER HAY.

There are two extremes, says the *Country Gentleman*, to be avoided—drying rapidly and too long in the sun, and attempting to cure wholly in the shade. It should be out while dry and free from dew, and exposed to the sun long enough to dry it partly. Then place it in small "cooks," when some additional drying will take place, and it becomes fit for the barn or stack. Some experience and judgment are required to know just how dry it must be to keep without heating or moulding. If made too dry it loses part of its value. The relative amount of drying in the sun and in shade will vary with weather, ripeness, and other influences, but as an average about two-thirds of the drying should be performed in the sun, and one-third in the shade, although practical men differ on this point.

The cottagers of Europe have a rather primitive way of using the slops of their houses. If their ground slopes at all to their gardens they have a channel cut through rows of currant or gooseberry bushes and pie-plant. Into these shallow ditches they pour all their slops, and it is no great exaggeration to say that rhubarb stems are common from four to seven pounds weight without the leaves, and currants grow very large.

The *Rural Home* says that no grass alone makes the best pasture, but a combination of varieties. A greater weight of nutritious pasture can be grown on a limited area of land, by sowing several species from any single variety. It would seem as if different species, feeding on the same soil take up various ingredients in different proportions, hence it is considered expedient to sow several of the species adapted to the particular soil.

HINTS FOR THE HOUSEHOLD.

STRAWBERRY JAM.—Cap the berries and mash them completely, weigh them and to every pound of berries take one of white sugar, mix together thoroughly, and boil for twenty or thirty minutes.

STRAWBERRY CREAM.—Cap one quart of ripe strawberries and sprinkle them with half a pound of pulverized sugar and set them aside for an hour or two, then stir them into two quarts of sweetened cream, beat all well together, put in a freezer and freeze.

STRAWBERRY FLOAT.—Cap and sugar one pint of berries and set them aside for one hour, then mash them through a colander; beat the whites of six eggs to a stiff froth and stir in the berries, whip all until the spoon will stand erect in them, serve with rich cream.

BUNS.—Mix two quarts of water and a pint of yeast into a soft batter and let it rise near the stove; beat together two pounds of sugar, and a pound and a half of butter and add to the dough, together with six beaten eggs; stir in flour enough to stiffen the dough, and bake quickly.

STRAWBERRY SHORTCAKE.—One quart of sour cream, full half teaspoon of soda, flour to make a soft dough: roll it about an inch thick; bake on pie pans in a quick oven; when done split them open; butter each piece and cover with berries and sugar; they may be piled one on top the other or not, just as you like. Serve with cream.

STRAWBERRY JELLY.—Mash the berries and extract the juice; strain through a flannel jelly bag; to each pint of juice take one pound of crushed sugar; put all in the kettle together and boil for fifteen or twenty minutes; put it in the glasses before it is cold and let it set until the next day; then cover with brandied paper and tie closely.

TO CAN STRAWBERRIES.—Take the largest and finest berries, cap them, and to each pound of berries take quarter pound of white sugar. Strew the sugar over the berries and let them stand for three or four hours, then put them in a preserving kettle, and just as soon as they come to a boil and are heated thoroughly, put them in the tin cans, having first heated the cans in boiling water; seal immediately. It takes two boxes of berries for one can.

STRAWBERRY CAKE.—Five eggs, three cups of sugar, one of butter, one of milk, four of flour, two teaspoonfuls of yeast powder, beat the eggs separate, cream the sugar and butter, add other ingredients, stirring in the whites of the eggs last. Bake on jelly pans as for jelly cake. Cap and split in half two boxes of large strawberries; spread each layer of cake with them and sprinkle with pulverized sugar, place them layer upon layer. Serve with or without cream.

STRAWBERRY PRESERVE.—Take the finest berries, cap and weigh them, allowing one pound of white sugar to every pound of berries. Take the inferior berries, crush and squeeze them, and strain through a jelly bag, to each pint of juice allow one pound of white sugar, put all the sugar in a preserving kettle and pour the juice over it; boil and skim, then drop the berries in and boil till soft, lift them carefully out on a dish and let them cool, continue to boil the syrup for ten minutes, put the berries in again and boil until clear, take them out and boil the syrup five or ten minutes longer, then put the fruit in jars and pour the syrup over them.