



## Agricultural Department.

## ABOUT FALLOWS.

Virgil alludes to the practice of naked fallows in his *Georgics*, written more than 2,000 years ago, of which the following is a translation:

"Both these unhappy soils  
The swain foreears,  
And keeps a Sabbath of alternate years,  
That the spent earth may gather  
Heart again  
And battered by cessation bear the grain,  
At least, where vetches, pulse and  
Tares have stood,  
And stalks of linseed green (a stubborn crowd),  
The ensuing season, in return may bear  
The bearded product of the golden year."

The practice of naked fallowing was considered essential until within a few years, and many who consider themselves good farmers still cling to the idea that the soil must lie vacant and have rest, when in fact, it is, especially in the West, one of the most vicious of exploded agricultural notions. Under our summer's sun the naked soil loses rather than gains. When a soil becomes poor, it needs manure more than rest. Fallows are sometimes resorted to kill weeds, and this is the only thing that a fallow should be adopted for. Even here, it is better that the soil have some crop that may be kept clean and give some return. If a fallow is necessary, sow something on the soil to be turned under, rye, peas, buckwheat, or something that will grow quickly, cover the ground, and enhance fertilization when it is plowed down.

Again many persons resort to a naked fallow because the soil through bad cultivation has become hard and lumpy. In this case it is far better to plow roughly in the fall and allow the soil to become disintegrated by the frosts and moisture of winter. In this case, do not plow again, in the spring, until the land is in such condition that the soil will turn from the mold-board free and friable. If plowed in the spring too wet you will have lost all that you have gained by the winter's frost. If the soil does not come into tith do not be discouraged, turn under some sowed crop, as heretofore stated, and reseed at each subsequent plowing. The second winter's frost will generally leave the land in good condition, and enriched by the plowing under of the crops sown. We repeat, there is no more wasteful farming than that which makes fallows necessary.

In this, the several plowings that are sometimes given as a preparation for wheat, must not be confounded. This is not truly a fallow. It is simply a means of killing the seeds of weeds after harvest by turning them under, and the subsequent plowing to put the soil into tith. In this day of sharp competition in agriculture, the sensible man keeps his land in tith and heart by manuring, by crops sown for plowing under, by the use of clover, meadows and pastures. It is a far more sensible way than the old naked fallows written about, by Virgil so many centuries ago, and still clung to by people who will not read, who do not believe in progressive farming, in fact in nothing their fathers did not teach them. The science of farming now-a-days is to keep the soil rich at any cost, and in such tith by cultivation that it will produce the greatest possible weight of grain. Nevertheless, Virgil was a wise man, a brilliant poet, and a good farmer for his day and generation.—*Prairie Farmer*.

**TOADS AND SQUIRRELS IN WELLS.**—The quantity and variety of filthy matter which is found deposited at the bottom of wells, in some localities, are astonishing. We recently had occasion to examine the *débris* taken from a well which had been cleaned the year previous, and among the accumulations were decaying toads and squirrels. These creatures had been probably attracted by the water, to reach which they had clambered down the wall till they reached the solid rock into which, for several feet, the well had been excavated, when they were precipitated

to the bottom, and could not retrace their steps. To obviate a repetition of the same annoyance the stone wall has been removed down to the solid rock, relaid in hydraulic cement, and carried some three feet above the surface of the ground and finished for some distance around the top with cement underlaid with stones. On this solid foundation a curb has been so closely fitted as to exclude even crickets and grasshoppers, which are so apt to find their way into wells. To those who detest impure water and would avoid perhaps the sickness of an entire family, the above plan, or the adoption of some better precaution against the contamination of wells, is recommended. This is the season when springs and wells are usually low of water, and therefore it is the best time for cleaning the bottom of the latter and repairing the walls if found defective.—*Scientific American*.

**KEEPING THE FRUIT.**—To keep apples nicely, a dry, airy, light cellar and scrupulously clean is absolutely necessary. The sides and ceiling of the cellar should be cemented with plaster, to keep an even temperature of cold; and the bottom of the cellar cemented with water-proof cement, to keep out the dampness. There should be one or more windows on opposite sides of the cellar, to give free circulation of air when needed. They should be of glass and supported by hinges at the top, so that they may be opened and shut as circumstances require. In such a cellar bins three feet wide may be constructed around the sides and wider ones through the centre. These bins may be filled with apples from the bottom to the height of five or six feet without danger of injury to the bottom apples by the weight of the upper ones. Make the necessary upright partitions in the bins, to keep each variety separate. Apples keep much better when stored in large quantities than if spread out in layers on shelves. When bins cannot be constructed in the cellar, the apples may be put into barrels and headed up tightly and stored away in the cellar. In this way they usually keep tolerably well. Vegetables of no kind should be stored in the cellar with apples. In a temperature suitable for keeping the latter most vegetables will freeze.—*Ohio Farmer*.

**WINTERING COWS.**—An ordinary-sized cow will eat about 200 lbs. of hay per week. It is estimated that it requires two tons of hay to winter a cow. Cows sell for an unusually low price. We do not advise our readers at this season to buy cows and winter them in hopes of making a good thing out of it by selling them at a high price in the spring. They may or they may not make money by the operation. But we think we are perfectly safe in recommending those farmers who have plenty of straw and stalks not to sell their cows; and if they will need more cows next summer, we think they can buy now and winter them over to good advantage. A cow will eat say three bushels of chaffed hay per day. So far as bulk is concerned, we must not vary much from this standard. In our own case, however, we would feed 2 3/4 bushels of chaffed straw and stalks, half a peck of bran, and half a peck of corn-meal per day. We think a cow can be wintered better and (with us) far cheaper than on hay alone. If you have plenty of clover-hay it may take the place of the bran. But do not try to winter the cows on straw and stalks alone. It is very poor economy.—*Fz.*

**WHOLE WHEAT FOR FOWLS.**—The *Poultry World* says: "There is more solid nutriment in whole wheat, as a feed for poultry, than in any of the cereals, weight for weight. It is an excellent kind of grain for this use, though somewhat more expensive than other sorts; but too much of this hearty feed is detrimental, particularly when carelessly fed to Cochins, Brahmas, etc. Fowls are very partial to wheat. It helps the laying capacity of hens, but it should not be used except with discretion as to the quantity allowed them daily. An excess of this raw grain will induce a looseness in the bowels very frequently. It is easy of digestion, and should be furnished in moderation, as a needful and most desirable variety, in conjunction with other dry grains, such as cracked corn, oats, barley, buckwheat, etc. If not more than one-third or one-fourth of wheat is allowed with the other

cereals mentioned, for ordinary purposes in the laying season, hens will do quite as well, and they can thus be kept in better average condition than by a greater allowance."

**PETROLEUM FOR RUSTIC WORK.**—Here is room for great improvement. We see on every hand handsome rustic work falling to decay and becoming distorted by age. It is commonly made of a kind of wood which does not last long. Soak it thoroughly with crude petroleum when new, and it will remain unchanged indefinitely. A rustic summer-house on a shaded part of our grounds would have been unusually exposed to dampness and decay had not this been prevented, a dozen years ago, by petroleum. The peculiar brown color imparted by a mixture of the heavy oil remains unchanged; and a lattice work of pine lath, a fourth of an inch thick, fully exposed to dampness and weather, is as sound and unworn as ever. The oil is now so cheap that there is no excuse for omitting its application, and it may be rapidly and easily brushed over the surface and sunk into the pores with a white-wash brush. Apply it heavily.—*Exchange*.

**EFFECT OF IMPURE AIR ON MILK.**—Most odors are gaseous in their nature, and follow the laws of gaseous diffusion. One of these is that each particle of gas is constantly exerting its repulsive force towards every other particle of the same kind of gas; or, in other words, it is trying to get as far from every one of its kindred as possible. Thus odors in following this law actually travel against the wind, if not too strong, as well as, of course, in every other direction. When, therefore, any gas is set free, it at once diffuses itself all about, going as far and as fast as it can; and conversely, when by means of any absorbing substance or surface, a gas or an odor is withdrawn from any open space, other particles rush in at once and fill the space, and are in turn absorbed, their places being taken by other particles, which yield in turn to others, and so on.

**IN LOCATING AN APIARY** there are several points that should be considered, says the *Rome Sentinel*. Perhaps water comes first, because it is something that we cannot get along without. There is a great quantity used by the bees on a hot day to keep the combs from melting down, besides what is used in feeding broods in the latter part of the season. When the wind blows from the east, hot and dry, bees have been known to use a pound a day to the hive, allowing a sufficient quantity for evaporation. A bee's life is governed, we might say, by the work it does; and if it has to fly a long way for water, it cannot for its life bring the honey to its owner it could if the water was handy. Wet sand is the best for bees to suck water from, for none are drowned.

**A SIMPLE BUTTER-COOLER.**—When ice cannot be easily obtained, put a trivet, or some open, flat thing with legs, into a saucer or soup-plate, and set the plate of butter on the trivet. Fill the saucer with water, turn a clean, common flower-pot upside down over the butter, so that the edges will sit within the saucer and under the water. Put a cork tightly into the hole in the bottom of the flower-pot, then drench the flower-pot with cold water and set in a cool place over night, or for some hours before needed on the table, and it will be as hard as if kept on ice.

**LAWNS** that are to be kept closely cut can not be well dressed with animal manure however fine it may be. For this purpose the following mixture is recommended. Eighty pounds nitrate of soda, 100 pounds superphosphate of lime, 200 pounds rectified guano, 100 pounds of gypsum. Use seventy-five pounds of this mixture to each one-fourth of an acre.

**THE FOLLOWING** are weights of Cotswold sheep recently given: A yearling ram, 174 pounds; a two-year-old ram that had never been shorn, 224 pounds; a grown ewe, 162 pounds; a ewe lamb, 114 pounds, all weighed in August off from grass without any extra keeping of any kind. The weight of fleece was from 8 to 15 pounds, and in one instance 17 1/2 pounds.

**BISCUIT** of oat and pea meal and linseed meal are largely in use for feeding the horses in the Russian army service. Fed on them horses bear fatigue better than when fed on oats alone, and one horse can

carry its own food rations for four or five days.

**THERE ARE** twenty well-defined and fixed breeds of English sheep, viz.: Teeswater, Lincoln, Dishley, Cotswold, Romney Marsh, Dartmoor, Exmoor, Blackface, Hereford, Morf, Dorset, Wilts, Berks, Southdown, Norfolk, Herdwick, Cheviot, Dunfaced, Shetland and Midland.

## DOMESTIC.

**MOST ECONOMICAL WAY OF COOKING MEAT.**—Thick soups, which are compounded similarly to stews but with more water, are the most economical forms of serving food. Their liquid nature renders possible an almost immediate distribution of their nutritive elements throughout the blood, so that they satisfy hunger more quickly than food in any other form, while if they are eaten with bread their bulk affords that sense of repletion so necessary to the satisfaction of hunger. It is a fact that a perfectly hearty, nutritious and appetizing soup can be made for ten cents a gallon even if the materials are bought at retail. Of course the proportion of meat is small, but it is sufficient. In this country, where meat is abundant and cheap, our whole population clings to the utterly erroneous idea that a large quantity of meat, cooked by itself, must form the bulk—the substantial part, they call it—of every hearty meal. All over the country far more meat is eaten than is required for the maintenance of either health or strength. This assertion must not be construed into an argument in favor of an exclusive vegetable diet. It is simply a plain statement of a plain fact. A mixed diet of meat, cereals, and vegetables, cooked in the form of those combination dishes the use of which we shall never cease to urge on the score of health and economy, is the best for all purposes. The man who lives upon it will be stronger and healthier than one who lives largely on meat.

**COOKING FISH.**—All fish which are choice, when served at the Windsor, are cooked with their scales on. In France a good fish is never boiled otherwise than with the scales on. The reason is that the natural covering to the fish retains the particular flavor of that fish. Take off the scales and skin the fish, then boiled salmon will taste like boiled shad. The main objection to leaving on the scales is that it requires some little skill to serve the fish without the scales, but some slight address overcomes perfectly this minor inconvenience. As to boiling fish, there seems to be endless heresies rife in regard to the process. All cook-books written with the least experience lay it down as a rule that a fish to be boiled must be placed in cold water. The water having been brought up to a boil, to have the fish in perfection, the fish-kettle should be removed and allowed to simmer. The fish is done when the fins can be removed without much trouble. The flesh of fish is softer than that of animals, and to put it in boiling water and subject it to a violent ebullition would be to break it to pieces. There are several methods of boiling fish other than in plain water. Fish are very much improved by making a *cour-bouillon*, which may be either quite simple, by adding to the water some salt, some whole pepper-corns, a bunch of herbs, and a teaspoonful of vinegar.—*Cor. N. Y. Times*.

**APPLE RICE PUDDING.**—Peel, halve and core six tart apples; place them in a flat stew-pan, with a little water, two tablespoonfuls of sugar, two or three cloves, and a stick of cinnamon; when tender, take up carefully; boil the syrup a while longer, and pour over the pieces. Boil two-thirds of a teacupful of rice in milk, with a scant teacupful of white sugar, and the rind of a lemon, until the rice is thoroughly cooked; then take out the rind and stir in the beaten yolks of three eggs. Put half of the rice at the bottom of a pudding dish; spread over the apples; cover with the remaining rice, and place in a cool oven for ten or fifteen minutes; beat the whites of the eggs into a stiff froth, add the juice of a lemon, three tablespoonfuls of powdered sugar, and spread over the pudding. Return to the oven until of a delicate brown.—*Rural New Yorker*.