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The ROCKY MOUNTAIN HUSBANDMAN is designed to be, as the name indicates, a husbandman in every sense of the term, embracing in its columns every department of Agriculture, Stock-raising, Horticulture, Social and Domestic Economy.

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Agricultural.

SEE to your small fruit shrubs, beds, etc., now if you want them to be prolific next season.

MULCH your fruit orchards strawberry beds, gooseberry and raspberry plots, and make other preparations for winter.

THE potato crop of Montana is very excellent this season. The quality is superior to any that has been produced for many years.

IF the farmer has anything to communicate for the benefit of agriculture or stock breeding, he will find the HUSBANDMAN the best medium.

CONTINUE to plow as long as possible. A little snow turned under will fertilize the ground and make it in splendid condition for the coming season.

Now that the evenings are getting long, the farmer's sons and daughters should provide themselves with books and papers and read for each other's edification.

FARMERS should not get scared at the first blast of winter and close up their root houses too snug, for the colder vegetables are kept, just so they do not freeze, the better.

GRAIN growing has come almost down to a States basis so far as prices are concerned. Owing to our superior facilities, however, the Territory can still compete and farmers can still make a good living, yet the business is cut down nearly one half.

As early as the time of Alexander II. of Scotland, a man who lets weeds go to seed on his farm was declared to be the king's enemy. In Denmark, farmers are compelled to destroy all weeds on their premises. In France, a man who permits weeds to go to seed, which may endanger neighboring lands, can be prosecuted.

A PLOT of land in the HUSBANDMAN experimental grounds was planted in strawberry settings last August, and it is looking well. We believe this is the best time to set strawberries, especially in this country. Our readers who have had some experience with strawberries would confer a favor by writing us the result.

WHEN harness becomes rusty give a new coat of grain black. Before applying this, wash the grain side of the leather with ptash water, cold, until all the grease is removed. After the leather is quite dry apply the grain black and then oil and tallow. This fastens the color and makes the harness flexible and soft. Grained harness can be cleaned by a cloth moistened with kerosene, but should be immediately washed and oiled afterward. Washing harness with warm water and soap soon injures the leather. All varnishes and blacking containing varnish, are injurious.

GRAPE vines do best when planted along the south side of a board fence. In the fall season they should have a board screen so arranged as to be raised up by them along the south side during the night. Being planted near the south side of a board fence will give them quicker growth. The reflection of the sun upon the fence will warm them much more than if otherwise located.

THE ANALYSIS OF SOILS.

In a recent bulletin, issued from the New York Agricultural Station, Dr. Sturtevant says in regard to the analysis of soils:

In the beginning of the application of science to agriculture, the popular attention was strongly attracted to the theory that a chemical analysis was about to offer a sure method of determining definitely the condition [illegible] of our soils, and various [illegible] nated the idea of this possibility [illegible] ses of their own, in [illegible] privilege of prescribing [illegible] diet required for each field of the farm. Those who should have known better were loath to appear in contradiction, for early science is presumptuous, and not having as yet determined its strength or its weakness, would attempt by a single bold and daring effort to work far beyond its capacity.

At the present time it is universally recognized by men of scientific training that the analysis of the soil for the purpose of the individual farmer can offer no solution to the problem of what fertilizer or how much to apply.

While denying that analysis of soils can give us definite information concerning their productiveness, and while asserting that the teachings of experience have shown that in most cases there is no direct relation be- the present analysis value of soil and the present agricultural value, or, otherwise expressed, that analysis cannot show with certainty whether or not a soil is in condition to yield a full crop for the time being, yet we would not deny that for the purpose of science such analysis may possibly be of some benefit as offering [illegible] judgment of its general character, the mode of its occurrence, or of injurious substances which at times it may contain. It may also be of avail to indicate to us the changes produced in the soil through the agencies included in the word cultivation.

The soil is never in a stable condition. It is varying continually through the action of the atmosphere, of temperature and of moisture. Its condition in respect to soluble and insoluble elements is in continual flux and reflux. Disintegration relieves plant food, moisture and capillarity transfer it, heat and frost have their action, while conditions of cultivation come in as well as a disturbing factor, not only in their mechanical relations but as well in the removal of soluble material through the harvesting of the crops. The nitrates of the soil are subject to leaching, and ammonia and nitric acid are also added to the soil through the agency of rains. Phosphoric acid is changed from one insoluble form to more soluble conditions and again reverting back. The various elements which go to feed the plants are changing their position and condition in the soil, according to chemical and physical laws.

In respect to crops, plants themselves have different powers by which they are enabled to appropriate the plant food, various actions and reactions between plants and the soil are such that a given soil requires the [illegible] in large proportions before the plant can be able to appropriate [illegible] their needs. A soil which contains the plant food sufficient for hundreds of crops, as determined by analysis, may yet be agriculturally barren through the inability of the plants to reach the elements which although absolutely in large quantity yet are relatively insufficient in the [illegible] to the plant. In such a case the addition of a small quantity of the fertilizer may change the condition from agricultural barrenness to fertility. The physical conditions of the soil also assume a greater importance, oftentimes in their relations to atmospheric changes deciding, for the location whether the plants shall grow or fail, irrespective of the quantity of the plant food contained within the soil.

NEW VARIETY OF WHEAT.

In growing new varieties of wheat, the tendency of the English and Americans has been to secure such as are very productive, giving a fine white flour. Braune, in Biendorff, has undertaken to produce wheat which would combine with these advantages an earlier ripening, and has succeeded by crossing productive winter and summer wheat, in growing the German July wheat. This matures about three weeks earlier than the English varieties, and is said not to be inferior to the latter, either in productiveness or in the whiteness of the flour. The July wheat is not bearded and, like all unbearded varieded varieties, gives a finer flour [illegible] less bran than the bearded. The new wheat was raised on mashy as well as on sandy soil with equally good results. In the fertilizers used, phosphoric acid was predominant. The height of the wheat is from 120 to 125 cm., and its ears are from 12 to 16 cm. in length. The wheat matures about the end of July and does not fall within the period of severe rains, which generally occur in August. The berry of the wheat is of [illegible] size. Its color is reddish and it [illegible] no way inferior to that of [illegible] wheat.—*Pacific Rural Press.*

STRAWBERRY CULTURE.

There are different modes of planting and cultivating strawberries, but very few persons have adopted the best. The most slipshod way is to allow the runners to fill the bed and to form a dense mass of plants. In a year or two they become mixed with weeds, which cannot be eradicated without great labor, and the crop at best is poor in quality. Another mode, a compromise between good and bad—is the matted row system, the plants growing thickly in the row, but admitting cultivation between. To keep the plantation clear of weeds requires much labor, and it must be soon given up to new plantings. A still better mode is to keep the plants in stools with the runners cut off, which gives fine berries and an abundance of them, and there is no hand-weeding, the spaces between the stools in the rows being kept clean with the hoe, and in field plantations the rows are worked with a horse. Such plansations may be continued several years, the plants not being exhausted or reduced by forming runners. But there is still a better mode, costing less to keep in perfect order than the matted bed, or the matted rows, or the row in stools with cut runners. This is the check-row system. Set the plants in squares, or in rows both ways, say about thirty inches apart. We sometimes see thrifty stools on rich soil measuring over two feet in diameter, and a foot and a half in diameter, and a foot and a half in diameter is more frequent. Cultivate these stools both ways with a horse attached to a narrow cultivator. Two implements will be found advisable, one with good sharp teeth, but not running deep, for spring culture and breaking the crust, and the other with fine standing teeth for keeping the surface mellow and clean through the season. The manager must use these or omit using them, according to circumstances, or the presence or absence of mulching. By working both ways, the soil is kept clean and in excellent condition, and the runners are easily chopped off with a sharp spade, or by attaching the cutting wheel recently described in the *Country Gentleman*, to the side of the cultivator. Give rich soil, top dress late in autumn with clean, short, fresh manure; plant good growers and abundant bearers, and large and luxuriant stools will be obtained, furnishing fine, showy and excellent fruit, which will bring good prices in market, and the planting need not be renewed every year. This mode does not of course apply to limited garden culture, but to market plantations by the acre.

For mulching such plants the treatment must vary somewhat with circumstances. If fresh manure can be had which has no grain in the short straw, and no seeds of wheat scattered through it, it may be spread evenly between the rows two inches thick early in winter, and it will protect the plants, enrich the soil by a soaking of rain, and it may remain until the berries are ripe, to keep them clean, after which the cultivation will mix it with the mellow soil and give a fine start to the plant for another year's bearing. This treatment, however, will not answer under other circumstances, where the mulching will be omitted, or be applied temporarily as the berries are forming, thorough cultivation being given at all other times in the season.—*Country Gentleman.*

The Poultry Yard.

ONIONS FOR POULTRY.

A correspondent of the *Country Gentleman* writes: It is a fact which owners and keepers of poultry are conversant with that the occasional use of onions mixed with the food is a safeguard of health, where they are fed to poultry once or twice a week. I fear the use of it is not as prevalent among poultry-keepers as its valuable qualities warrant. It is not a cure all after disease has once begun, but a preventive of the first approaches. Fowls will readily partake of onions if they are sliced and mixed with other food, and a small portion of pepper is added.

If scalded with the other food, they will be found to answer a much better purpose. Fowls are much more tender and delicate when laying than at other times.

They are not only more liable to constant colds, but frequently suffer from a bad or irregular system of feeding. The tone and strength must be kept up, or the working organs are injured.

DEPARTMENT OF AGRICULTURE.

The Commissioner of Agriculture desires a report on the following crops on November 1st, 1883: Average yield per acre of corn, and quality compared with last year; average yield per acre of potatoes, and quality compared with last year; average yield per acre of hay in tons, and quality compared with last year; the product of grapes and pears compared with last year. The questions relative to cotton and tobacco are not applicable to this Territory, as those crops are not raised here. It is hoped that correspondents will fill up reports on the cards sent them and mail promptly. We should receive them by the 25th of October, in order to complete our report and forward the same by the 1st prox.

CHICKEN CHOLERA CURE.

For the cure of chicken cholera I take broth made of a fowl, but chicken sinews and water, and to this add one drop of blood taken from a living fowl suffering with the disease. This [illegible] I expose to the air for a greater or less time. After several months the poison thus so cured is so attenuated that the disease produced by inoculating with it is very mild, but is sufficient to protect the system from the mortal disease. During these months of exposure nothing but the air is employed to reduce the virulence; we would, therefore, look to the oxygen of the air as a remedial agent in this disease, as the fluid hermetrically sealed during this period would have lost none of its virulence.

In conducting my experiments I take, say, one hundred birds that have never had the cholera, either naturally or induced artificially. A portion of these I inoculate with the poison in a virulent state, and all die. Of the remainder I inoculate a portion with the weakest I can employ; none die, but only a portion prove to be protected against the disease. These, if again inoculated with the virulent poison, are all ill, but only a small portion die. Another lot of the fresh birds I inoculate with two punctures a week apart. These are again inoculated with the virulent poison and a larger proportion than in the previous experiment recover. The remaining birds I inoculate with the reduced poison three or four times, and though afterwards inoculated with the virulent poison, not one died. In this case the birds are protcted from the disease. When the first inoculation is sufficient a kind of mortification more or less extended appears around the point of puncture. When this is not to be seen, or, when the operation leaves no trace, one is almost warranted in considering the bird fully protected.

From other experiments I am led to the belief that inoculation for the cholera, or with the cholera poison, protects the bird from the throat ulceration variously known as canker, croup, diphtheria. I notice that the poison of the latter develops slowly, if at all, in the fluid containg the cholera germ.—*Corr. Fancier's Journal.*

OVERCROWDING.

Every fall finds the poultry houses overcrowded, and even way up into the winter is this the case, until the flocks get thinned down by gradually selling them off, or until the bulk of them are hurried away by the annual slaughter just before the holidays. When you commenced in the spring with a few choice pullets and a cock, the house was large enough to comfortably accommodate them, but when the young birds are forced to shelter by the approach of cold weather, having entirely outgrown their mother's care, the house proves to be far too small, though but few breeders make any extra accommodations for them, as they undoubtedly should do, to secure them comfort and insure their health. If sickness once gets a hold in such an overcrowded house, scarcely anything will stay its ravages until there are few if any birds left. Even if they do not die under such careless treatment, they cannot possibly keep their health, and will become sickly or droopy, and lose much of the weight put upon them when they were not in such close quarters, breathing the fetid atmosphere of the overcrowded house.—*Field and River.*

The Household.

Buttermilk Teacakes.—Two pounds of flour, one and a half teaspoonfuls of baking powder, one-eighth ounce bicarbonate of soda and a pinch of salt; mix into a firm dough with buttermilk, which should be sour, although not rancid. A few currants and a little white sugar can be added if sweet cakes are wanted. Or take half a pound of flour, as much carbonate of soda as will lie on a quarter of a dollar, double that qantity of cream of tartar, and a pinch of salt; make a stiff dough with buttermilk, knead lightly, and roll about half an inch thick; bake in round cakes.

Ginger Biscuit.—One pound of flour, half a pound of crushed loaf sugar, a teaspoonful of carbonate of soda, and a good tablespoonful of ground ginger. Mix all the dry ingredients together first, and then rub in half a pound a putter. Beat two eggs well and make a stiff paste; roll out on a floured board, and cut the paste into small cakes. Bake for half an hour in rather a quick oven.

Squash.—Squash is much nicer if a little flour be added to it while cooking. Cut it into small pieces, boil until tender and rub through a colander; add a piece of butter, little cream, some flour which has been mixed smooth in milk and thoroughly cooked, and boil again, and boil again, and just before taking from the fire stir in the well beaten yolks of two eggs.

Cornstarch Pudding.—A light and very delicate pudding is made by beating six tablespoonfuls of cornstarch with six eggs, a half a teaspoonful of salt, a quart and a pint of sweet milk, sugaring and flavoring to suit your taste. Heat the milk and then stir in the cornstarch, etc., gradually. It is quickly made, and if served with vanilla-flavored cream is delicious.

Peach Cakes.—Peach shortcake is as good as strawberry, if you only think so, and sliced peaches between layers of cake are very nice, and especially if eaten with cream.

ORIGINAL DEFECTIVE