FOR FARM AND GARDEN

The Size of a Flock.

Although one can, after a year's experience, keep a large number of hens, yet the flock should be divided into families not exceeding twenty-five hens in one pen. A single male, if active and vigorous, will suffice for that number, as has been demonstrated by experiment, and the eggs will hatch better than when two males are together, owing to the continual warfare that will exist between them. If eggs only are desired no males need be used, as the hens will lay as well without their presence.—*New York Herald.*

Proper Depth for Seed Planting.

No rules of universal application can be given as to the proper depth at which seed can be planted. In dry, sandy soils, situated in dry climates, a deeper covering is required than would be judicious under opposite conditions. For example, it has been shown that peas continue to longer in a strong condition, on sandy soils, when sown at a depth of six inches, than they do when placed nearer the surface, and it is said that the Indians, upon the table lands of the Colorado, plant corn two inches inches below the surface, with the best results, but if planted with only one or two inches of covering the crop fails. Seeds also vary in their ability to germinate depths of soil in consideration. Large numbers seeds, and some of the largest sewing grammes seeds, planted deeper than those of a lighter character.—*Rural Cultivator.*

Potatoes and Bran.

A Wisconsin farmer inquires whether potatoes at 25 cents per bushel are cheaper for feeding milch cows than bran. In reply Prof. Henry states:—"Approaching the subject from the chemical side we can get a pretty satisfactory and definite answer. At 25 cents per bushel potatoes are worth about 40 cents per 100 pounds. Calling bran $12 per ton we have a cost of 60 cents per 100 pounds, so that the question is—Which is the cheaper food, potatoes at 40 cents per 100 pounds or bran at 60 cents? One bushel of potatoes—60 pounds—worth 40 cents, contains on a general average 10.6 pounds carbohydrates, 1.6 pounds albuminoids, 1.2 pounds fat, 1.2 pounds ash, and 75.4 pounds water. One pound of bran contains 12.6 pounds protein and 47.9 pounds carbohydrates and fat. It is evident that bran is the cheaper food than the potatoes for feeding purposes at the prices named. If bran cost $20 per ton or 25 cents per bushel for the potatoes, it can afford to buy the latter at nearly the same price. The potatoes would be quite valuable for feeding pigs, and I think one should feel justified in giving 15 cents per bushel for them. I should be indicated by a thousand experiments I have been given. Animals respond well to their food according to the best gains, and the farmer who feeds nothing but hay and bran, and feeds it in a dry state, will find it for a time. He may not detect a marked difference from what he calls a kind of paradox, but they are the reverse.

Requirements of Crops.

At the State Agricultural Experiment Station, Geneva, N. Y., Dr. Albert R. Ledoux has commenced a series of the experiments proposed by the station and work with [illegible] which must necessarily continue for a long time. It has been proposed to find the whole of the nitrogen, phosphoric acid, potash, under early cultivation. To mention but a good commercial fertilizer, one crop and to run out the remaining crops of cropping with no potash. The investigation is called for by the farmers and the needs of the station have been considered and a plan adopted which will meet the support of the [illegible]. The plan adopted is an application of the solution of crops the amount of each manure, but of no [illegible] the [illegible] of the farm.

The rotation will be as follows: 1. Corn with all kind of manure forced manure from the stables. 2. Turnips, roots, corn and cabbage [illegible] and selling crops. 3. [illegible] with rye for green. 4. [illegible] years. During the [illegible] years forage the land is to be [illegible] and cultivate [illegible] selling crops. Provision will be made for such experiments on a large scale as may from time to time appear to be of practical or scientific value and which will not interfere with the regular cropping. Fertilizer experiments will be made upon the above crops and the results published.

In view of the fact that the State of New York embraces so wide an extent of territory, with its differences of soil and climate, the direct influence of which should be established in [illegible] should be established in [illegible] experiment stations for the purpose of determining the results which are produced by such differences, and that the work could be conducted by intelligent farmers in their several sections under the direction of the central station, and in that way the special work of the station could be widely distributed at a very slight additional expense.—*New York Herald.*

The Mystery of Milk.

How is the milk produced in the udder? This question has given rise to much summer and discussion, and it has been generally supposed that the milk is the product of a breaking down or degeneration of the glandular tissues of the udder, by which the latter glandules known to be contained in the minute lobules of the glands are set free and mingled with the milk. And it has also been supposed that this action of the udder goes on mostly during the act of milking, or at least the final result of it is effected very rapidly during the milking. There are several reasons for this belief. The udder cannot hold all the milk in its sponge or cellular tissue, which is drawn from it. It does not be quite dry, full, flexible until a few moments after the milking has been begun, and the flow of milk is not continuous, but in some cows is gradual and requires some time to be completed. Cows vary in this respect. A cow recently fresh and new milked, the writer has this gradual flow in a marketable manner. She is milking two quarts or twenty-two to twenty-three pounds at each milking. At first her large udder is quite loose, and the milk comes very slowly. Gradually the udder fills and the milk flows more freely, but the front teats are seldom exhausted, and time is required for them to fill up again. This is necessary to make the front and rear teats [illegible] which of the milk [illegible] and [illegible] stoppage of [illegible] only [illegible].

The place [illegible] in the udder [illegible] milk is not [illegible] the udder [illegible] with [illegible] and that the [illegible] as a medium for very equilibrium to milk or [illegible] the milking [illegible] of the constituents [illegible] to facilitate the [illegible] and [illegible] which [illegible] the [illegible] of milk [illegible] [illegible] [illegible]