#### FARMER'S ADVOCATE. THE

# FARM.

#### Swamp Muck,

Upon an adjoining farm there is a small swamp, containing an almost unlimited supply of muck, or decayed vegetable matter. The accumulation is from four to ten feet or more in depth. Would it pay to haul some of this at once upon a field which is to be sown with fall wheat and seeded with clover next spring? The field has been continuously cropped with grain for a number of years, no clover or grass having been grown on it, and only one moderate coat of manure having been given it, so that the humus is almost entirely depleted. This year, being a wet season, it yielded a fair crop of oats. Not enough manure is available to properly manure the field. Would the application of the muck be beneficial to the wheat crop, and would it increase the chance for a catch of clover? Might there be injurious substances in it, which would injure plants? Would hauling in the winter and exposing to frost increase the value of the muck? About how many two-horse loads per acre-the muck being fairly dry-would it be wise to apply? The soil is a clay loam. SUBSCRIBER.

Lincoln Co., Ont.

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Swamp muck is the accumulation of centuries of vegetable matter, in more or less stagnant water. The presence of the water prevents complete decomposition ; consequently, while the air-dried material may contain from 1 to 8 per cent. of nitrogen, very little, if any, of it will be in an available form. Potash and phosphoric acid are present in very small quantities, of which only traces are in a form available to plants. The mucks also frequently contain forms of unoxidized iron, which are injurious to farm crops, and are usually sour or acid. Therefore, because of the condition of the plant food, and the acid nature of the muck, and not because of the lack of plant food, it will not pay to apply the muck in the raw or crude state.

There are exceptions, as sometimes mucks are found which do not contain injurious compounds, and are not sour, but these are very rare. If the swamp has been drained and the muck dried out, possibly some of the top soil might be profitably used as a fertilizer, but fermentation is necessary before the best results can be secured.

Hauling the muck in the winter and exposing it to the action of frost and air will improve the muck. If after it has been acted on by the frost, it be composted by mixing with about an equal quantity of farmyard manure, it will be still further improved. The dried muck may also be used with considerable profit as an R. HARCOURT. absorbent in the stable.

O. A. C., Guelph.

### Buckwheat Crop Versus Summer-fallow. To the Editor "Farmer's Advocate":

I noticed in your issue of July 27th an editorial on "The Passing of the Summer-fallow." Now, I quite agree with that idea, and especially in the case of the tenant farmer, such as I am, as it is often hampering, or even impossible, from a financial point of view, for him to make a bare summer-fallow, and, besides, I have come to think that it is not in any great degree beneficial to the soil, even though it were possible to summer-fallow. I think the hoe crop an excellent way to clean a field of weeds and leave it in good fertile condition for succeeding crops, and also for seeding down. But I would like to tell you of still another way, where one has more dirty land than he cares to plant with roots or corn. I found myself in just that dilemma in the spring of 1904, and feeling not inclined to make the bare summer-fallow, I conceived the idea of sowing buckwheat; so, as early as possible in the spring I cultivated and harrowed the field, to give the thistles and wild oats a start, and then allowed them to grow until about June 10th, when we went to work and plowed it all down, using chains on the plows, so as to completely bury the weeds; then we harrowed and rolled until the surface was thoroughly fine, and about June 20th we sowed it with buckwheat, about one bushel per We found it satisfactory, for when we threshed acre. we had 225 bushels of recleaned buckwheat from nine acres. Then we put manure on the field, about nine loads per acre, with manure spreader, plowed it under, and now we have an excellent crop of mixed grain (spelt and oats), almost free from weeds, with a splendid catch of clover and timothy. It would not be wise to put the manure on before the buckwheat, as it would cause the buckwheat to go too much to straw, which is of no value (we spread it back on the land immediately after threshing) ; a big crop of straw means a light crop of seed. Hoping this may benefit W. N. C. someone with a dirty field. Huron Co., Ont.

## A Lesson for Us.

Still another worthy must be added to the list of those who have been working for the farmer and helping themselves at his expense. According to a Washington press despatch, Dr. D. E Salmon, Chief of the U. S. Bureau of Animal In-dustry, has admitted having been a business partner of Geo. E. Howard, the man who invented the gelatin meat inspection label, and furnished it by contract to the Department of Agriculture. As a result of this and preceding revelations, Secretary Wilson, it is said, will promulgate a set of rules for the guidance and warning of officials of the Department of Agriculture. First and forethe Department of Agriculture. most will be a provision that no official or employee of the Department may financially interest himself in any commercial concern engaged in business similar to that in which he is engaged as a public servant, or in any company that bids for contracts, that he, by reason of his official duties, has to pass upon or approve.

This rule will cover not only the case of Dr. Salmon, but also the case of Dr. George T. Moore, former head of the Bureau of Plant Physiology. Dr. Moore invented the "nitro-culture system of inoculation. While he was exploiting the virtues of his discovery, his wife held stock in the National Nitro-culture Co., Westchester, Pa. For this reason, Dr. Moore was obliged to resign from the department.

It is promised that the inquiry into the conduct of the Bureau of Animal Industry will be thorough. Besides determining what, if any, relations existed between Dr. Salmon, Chief of the Bureau, and the company which supplies the meat tags and ink used by the Government inspectors, the investigators will also look into the charge that competitors of the so-called "beef trust were driven out of business by the refusal of the bureau to detail meat inspectors for the smaller establishments. It will be learned if the larger establishments have been exercising political influence to crush their rivals.

To a demand that he resign, Secretary Wilson has manfully responded, expressing determination to stay in the department and clean it up. The moral of this whole business is not without its application in Canada.

## Fall-wheat Growing.

With the completion of wheat harvest comes seeding time. The crop of 1905 has, on the whole, been quite satisfactory, escaping the winter, the Hessian fly, and the host of other enemies which have in recent years made this important crop so uncertain in Ontario; hence there are strong indications that a considerable area will be sown to wheat the coming season. To insure a probability of success, it is essential that the various stages of preparation during the next few weeks should be thoroughly and intelligently carried out. Experience shows that wheat generally thrives best when sown on an inverted clover sod, a cultivated pea stubble, or a bare summer-fallow. With our present methods of farming, the lastnamed has been discarded, as being too expensive. The plowing down of clover and other green crops should be done at least a month before seeding. If the land is worked up and sown immediately after plowing the green stuff will not have decayed, but will be heating to such an extent as to prove very detrimental if not entirely ruinous to the wheat crop.

The old practice of plowing the ground two or has, in my opinion but little to recommend it. The frequent plowing makes the subsoil too loose and open, so that it becomes more or less saturated with water, which by freezing and thawing in winter heaves the plants and kills them. Also in times of drouth, the soil dries out very quickly, with serious injury to the crop. The ideal seed-bed then, is pulverized at the surface merely, and is compact below : the roots thus coming in contact with solid earth, which holds the moisture much more readily, are in a position to assimilate the available plantfood, and so enable the plant to make an early and rapid growth. In addition to the above, the grain does not lodge so easily and a better stand of grass seeds is obtained. The land should be plowed shallowly as soon as practicable after the previous crop has been removed, and followed by frequent surface cultivation. There are three reasons for the latter operation : the conserving of moisture, the liberation of plant-food, and the germination of weed seeds. The time for sowing depends largely on circum-When sown too early there is danger of too rank and succulent a growth, especially on very rich lands. Therefore, other things being invorable, the poorer the soil the earlier seeding may be done with safety. Early-sown wheat being, however, subject to attack from the Hessian fly, it is usually well to wait until after a slight frost. Generally from the first to the twentieth of September will be the best time. Although no hard-and-fast rule can be laid down, it may be breadly stated, as the result of observation, that while early sowing is often better than late sowing late sowing is seldom better than early sowing.

The quantity of wheat sown per acre depends chiefly on the character of the soil, the size of the grains and the time of sowing. As a rule, one and one-half to two bushels per acre will be suffi-On rich soils less seed will do than on cient. poor soils, as a thick seeding would tend to increase lodging. With fewer plants they grow naturally, the sun gets in more, the straw is heavier, and the plant is healthier. If sown thickly it tillers little, and produces few heads per When sown thinly it stools more and the plant. heads are larger, often enough to counterbalance the thin seeding. If a variety having small grains is sown less seed is required. As the result of nearly 400 determinations, it was found that there was about an average of 12,000 kernels in a pound of wheat. In some samples there were less than 8,000, while in others 24,000 kernels to the pound; one bushel of seed in the one case being equal to three bushels in the other. When sown early a smaller quantity will do, as each plant will have time to grow larger, will stool out and cover more ground.

The two main factors in obtaining a large yield are a fertile soil and good seed. A judicious selection and grading of seed wheat will work wonders in this direction. Care should be taken in the first place to secure the seed from that part of the crop that has given the most satisfactory returns. This may be done by storing a load or two where it could be specially set apart for seed; then by making a free use of the fanning mill, a choice sample should be easily obtained. As few sections are free from rust or smut in wheat, and the loss from this source is often considerable, the seed should be treated with bluestone or formalin. The expense in stamping out these diseases is so small that neglect in so doing is running an unnecessary risk. Elgin Co., Ont.

J. H. M.

#### Crops in Ontario.

The August Crop Bulletin, about to be issued by the Ontario Department of Agriculture, will contain the following regarding conditions on the first of the month:

Fall Wheat .-- The crop will be a big one as regards the yield per acre, more especially in the Lake Erie counties. A number of correspondents speak of rust, but in almost every case it was described as being only slight. Some complain of the grain as being somewhat shrunken, while others speak of it as being plump; it may be generally classified as a fair sample. Three or four correspondents mention injury from either midge or joint-worm, but all are silent as to the presence of the Hessian fly, which for the previous four years had been devastating our wheat fields.

Spring Wheat .- Comparatively little now grown in the western half of the Province, and in the eastern half the crop appears to be also decreasing in popularity. The crop is described as being full in the head, with good straw, and promises more than an average

Barley .- Like the other cereals, this grain will go considerably over the average in yield per acre. The condition of the crop is variable, some correspondents speaking of much injury from rain and lodging, while others describe it as being first-class, both in point of yield and quality. Several correspondents speak of barley and oats being sown together as a popular feedmixture.

Oats .- The yield promises to be one of the largest, both as regards acreage and total yields, severa spondents classing it as the finest crop in years. High lands gave magnificent yields, but in low places it suffered considerably from the wet.

## Clipping New Seeded Alfalfa.

If weeds threaten the alfalfa stand the first season they should be clipped, but no clipping should be done later than the last of August. A test was made in 1904 in regard to clipping. The west half of all plots was clipped, and the clippings left lying. The result is that now (May 10th, 1905), though the ground is poorer where the clipping was not done, yet the alfalfa on this half is taller, stronger and a better stand than on the other .-- [Bulletin 225, Michigan Experiment Station.

Peas .- During the last four or five years the acreage of peas in this Province has shrunk by about one-half, owing to the ravages of the pea weevil; or, as it is popularly called, the "bug." This season, happily, the pest is mentioned only to tell of its absence. crop has been injured more or less by rain; nevertheless, the yield per acre will run over an average. In the newer districts of the northern portion of the Province the yields are among the best. The pea harvest was expected to cover about August 10th to 25th, as most of the fields were quite green as correspondents wrote.

Beans.-Where grown as a field crop, beans give promise of a large yield per acre, notwithstanding damage from heavy rains at the time of planting. The crop had still two or three weeks to ripen when reports were received, but it was then looking well, although occasional mention was made of the presence of cutworm.

Hay and Clover.-The season has been a remarkable one for this crop, cutting ranging all the way from the last week of June to the end of July. In fact, on the 1st of August there was some hay yet to mow in various localities, fall wheat and other cereals having ripened before the heavily-covered meadows could be cleared, and there being also a scarcity of labor. Hay cut early was more or less injured by rain, but that harvested later was housed in fine condition. The average yield for the Province will be among the best on

Flax is not so largely grown as formerly. The plant this season is generally described as being long, and of a good quality of fiber, although owing to the crop being so heavy much of it got knocked down and tangled. Pulling had just commenced as correspondents