

To get the best results these marshes must be kept well drained, that is, with open drains. Water left standing on it causes it to sink, and become sodden. As it is perfectly free of stone or sticks it is easily ditched or plowed.

As mentioned previously, this marsh mud is an excellent fertilizer, on uplands, more especially if the upland is of a sandy loam nature. It is

TABLE SHOWING RESULTS OF ANALYSES OF TWO SAMPLES OF "MARSH LAND" SOIL. THE RESULTS ARE GIVEN IN PERCENTAGE.

SAMPLE No. 1.	SAMPLE No. 2.
Air dried mud taken from marsh that has grown hay for 40 yrs.	Taken some years ago near Trent.
Organic and Volatile Matter ..... 10.54	Moisture ..... 5
Clay and Sand ..... 75.29	Organic Matter ..... 1.5
Oxide of Iron ..... 14.72	*Chlorine ..... .085
Alumina ..... 14.72	*Sodium ..... .115
Lime ..... .239	Potash ..... .012
Magnesia ..... .513	(Sulphuric Acid) ..... .073
Potash ..... .917	Lime ..... .061
Phosphoric Acid ..... 1.30	*Alumina ..... .086
Soluble Silica ..... .081	*As Common Salt, 1% Oxygenn. .... .094
Carbonic Acid ..... 1.054	
Total ..... 150.00	Soluble in Hydrochloric Acid.
Available Elements.	Carbonate of Lime ..... 3.00
Nitrogen ..... .182	Oxide of Iron ..... 2.74
Potash ..... .0088	Alumina ..... 1.20
Phosphoric Acid ..... .0240	Magnesia ..... .11
Lime ..... .0020	Soda and Potash ..... .8
Reaction Acid.	Phosphoric Acid ..... .00
	Silicious Sand (very fine) ..... 87.00

not as good if used on clay soils, as being of a heavy nature it is apt to make the land pasty and heavy. The large amount of salt it contains makes it an excellent root grower, when used in conjunction with stable manure. The writer has seen 1400 bushels of turnips grown on one acre fertilized with barn yard manure and marsh mud.

#### RECLAIMING OF MARSH LAND

In the making or reclaiming of marsh the usual way is to form a company for a certain stretch of flat (as it is called before it is dyked). "Brush heaps" or breakwaters are put in, usually in winter on the ice, weighted down with stone and allowed to settle. These breakwaters are built in some cases, four or five hundred feet long, right out in the channel, and 40 or 50 feet wide, and between 20 and 30 feet high. Derricks are used to hoist the brush and stone. These breakwaters tend to keep the channel out past the ends, and marsh forms between and back of them. When it is high enough it is dyked, plowed, and a crop of grain or two taken off. Then it is seeded to clover and timothy.

Across a stretch of old marsh half a mile in width from where the writer lives, lies a piece of new marsh containing about 75 acres. Four years ago it cut its first crop of clover hay, three tons to the acre good. Twenty years ago the channel was running close to the dykes of the aforesaid old marsh, not one acre of marsh outside of the dyke. Members of the Company ask from \$175 to \$200 an acre for this new marsh.

#### Regarding the Changing of Seed

L. H. Newman, B.S.A., Sec., C.S.G.A.

It has been claimed by some that seed should be changed every few years no matter under what conditions it may have been produced. Others claim that seed to be used for a crop produced on heavy soil and vice versa. Others claim that only under the most exceptional conditions should seed be changed. While all of these views cannot be correct in their entirety, yet there is a certain amount of truth in each which is determined entirely by circumstances.

The conclusions arrived at by a large number of investigators who have been studying this ques-

tion for many years, are in the main as follows: Where good varieties have been grown on the same farm, year after year, and due attention has been given the matter of choice of seed, nothing is likely to be gained and much may be lost by changing seed. On the other hand, if a better bred strain or variety, grown under nearly similar conditions, could be obtained, there would doubtless be some advantage in making the change.

#### Farm Practices of a Progressive Farmer

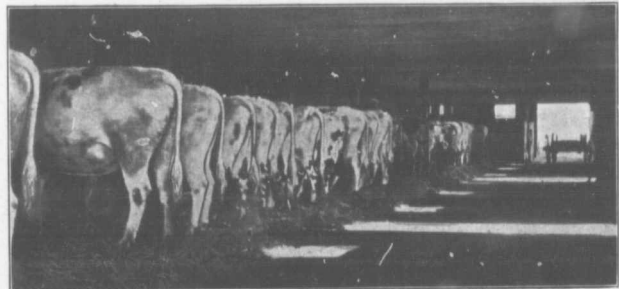
Mr. Alex. Hume, the well known Ayrshire breeder, of Northumberland county, Ont., has been in the habit for several years of manuring his soil land. The results that have been obtained have been most satisfactory. A representative of The Dairyman and Farming World who visited his place recently, was much interested in the farming methods followed and in the fine dairy cattle barn.

The cow stable is 50x130 feet long. It is possible to tie 42 head in the main stable. Mr. Hume has wintered 65 head of cattle including young stock. The cow stable faces the West. There are numerous windows, which keep the stable nice and light at all times of the day. A simple system of ventilation, by which air is drawn from near the ground on the outside by boxes which go through the walls near the ceiling, and can be closed at pleasure, has given good results.

#### DRIVE INTO THE STABLE

Back of the cattle there is a drive way eight feet wide extending from one end of the stable to the other. Mr. Hume says a manure spreader is a splendid piece of farm machinery as he finds that it spreads the manure more evenly than by hand, that it makes it possible to spread the manure over a larger area of ground and that it saves time and labor. The manure is taken direct from the stables to the fields.

"I have been manuring my sod and following it with corn," said Mr. Hume, "because I con-



Well Kept Cattle, in a Well Kept Stable

This stable, owned by Alex. Hume, Northumberland Co., Ont., is 50 x 130. The main stable will hold 42 head of cattle. It is well lighted and ventilated. A driveway, eight feet wide, back of the cattle, greatly facilitates the work of cleaning. See adjoining article.

sider manure can be applied in this way to the best advantage. It is next to impossible to apply manure satisfactorily on ploughed ground. Each year we seed down all but the sod land. One advantage of this method of applying the manure is that it is easier to keep the land clean. After the manure has been applied the land should be ploughed in the fall or early in the spring because it holds the moisture better. One objection I have to this method is that the cows won't eat the grass as well after the manure. When manured in this way, corn is likely to do better because there is apt to be some weed seeds in the manure and if the manure is applied on the sod these seeds are not likely to give the same trouble."

One of the features of Mr. Hume's stable is a silo

39 x 13 x 25 feet. There is a partition in the silo dividing it in two. This silo has been in use for 18 years and has given excellent satisfaction. Mr. Hume believes that were it not for the silo he could not keep as many cows as he does. "In growing corn for the silo," said Mr. Hume, "we sow with the drill and mix a good Canadian variety, that will grow a good stock and good ear, with Mammoth or red cob. This mixture of seed has given us the best results of all the different kinds of corn we have grown."

#### BELIEVES IN LUCERNE

This year Mr. Hume cut 13 acres of alfalfa, which was seeded in 1907. His reason for growing alfalfa is an interesting one. Eighteen or 20 years ago he grew a little lucerne. This was put away in the mow, and as the mow was a large one Mr. Hume never got to the bottom of it, with the result that his lucerne was not reached until about five years ago when he was building a new barn. At that time it was taken out and put in a stack. Although it was very musty looking the horses were very eager for it. When fed it gave such good results Mr. Hume decided to grow more. The crop grown this year produced about 1½ tons to the acre at the first cutting. Mr. Hume has seeded down another seven acres. He obtained better results where he sowed 20 lbs. to the acre than where only 15 lbs. were sown. He believes that if the ground is in good heart, 15 lbs. to the acre should be sufficient.

#### BELIEVES IN FREE RURAL DELIVERY

Mr. Hume was much interested in the articles on Free Rural Mail Delivery that were published in The Dairyman and Farming World. He lives 2½ miles from a post office and pays a mail carrier \$2.75 a year to leave his mail in a box near the school house where his children can get the mail when they are at school. During the summer months this arrangement is not of much benefit to him as the school is some two miles from his house. Three of Mr. Hume's neighbors get their mail in the same way. Mr. Hume believes that it would be a great blessing to the farmers of

Canada were their mail delivered at their doors every day as is done in the case of the farmers in the United States.—H. B. C.

#### Millet Pasture for Milk Cows

(See Also, *Ontario Co., Ont.*)

We have always been bothered more or less to provide good pasture for our milk cows during the last half of July and August. In order to meet this difficulty this year, we ploughed up one of the pasture fields in the middle of June and sowed millet upon it, one peck to the acre, and allowed it in. The result has been we have had the best summer pasture we have ever had. The cows were turned in on the field when the millet plants were three or four inches high. In a few