cluding some sold for sets, a little exceeded a ton. These I shipped to a Commission Agent in New York, and received for them $110 per ton. This year I have a much heavier crop.—For an experiment I have weighed those cut from 12 stools, which amount to 18 lbs. I have found in peeling and drying they waste nearly one half. The produce of an acre stands thus: 14,520 stools per acre ½lb. each, 21,780 lbs.—Ready for market, 5½ tons, $110 per ton, $605, cost of cutting per acre, $6; cost of peeling per ton, $7, $38, binding and taking to market, $5½ per ton, $27, total, $72. Deducting expenses, this leaves a profit per acre of $533."

"According to directions at the time I planted, I have not cultivated mine since the first year, but think they should be cultivated once every spring, to loosen the soil and keep them free from weeds and grass. I am confident that any one who has suitable ground and will bestow proper cultivation can realize this amount from an acre of willows, perhaps more. After reading these facts I think no one can hesitate to answer the query, will it pay?"

The foregoing computation shews a liberal profit on the experiment. Is it not worthy the consideratson of the Board of Agriculture to offer a scale of prizes for the encouragement of the cultivation of the Osier Willow? The season for planting being very convenient, about the same time of planting Indian corn, there is scarcely a farm in Upper Canada without a low swampy plot, which, with open drains, may easily be made fit for its successful cultivation.

The premium should not be less than for one acre, the cultivation to be certified by the President of the County Agricultural Society, wherein the plantation is situated.

Your obedient servant,

J. B. MARKS.

Bath, England, Feb. 1862.

Experiments on Manures.

A short time ago some experiments were published in the *Gardeners' Chronicle* in reference to the beneficial action of coprolites (ground to an impalpable powder) on swedes, in comparison with other manures. The results have, contrary to the opinions of myself and others, induced me to try similar experiments on swedes, the result of which I now lay before your readers. I quite agree with Dr. Voelcker in saying that very little good can be obtained from the result of a single experiment, but often a great deal of harm; and with this view of the case, I intend pursuing the same experiments for several years to come, as I think it is the duty of every one who holds a similar position to myself to do all in their power to connect science with agriculture, and I shall be very glad to join any person in making agricultural experiments who is situated in a different part of England, so as to be able to arrive at more satisfactory conclusions.

The ground experimented on was lately a very old and badly drained piece of pasture to which after being well drained, salt was applied at the rate of 25 bushels per acre. The field was then ploughed and harrowed in the usual manner, and divided into two parts of 4½ acres each. On the one half oats were sown, and on the other mangels and swedes drilled in with superphosphate of lime leaving the width of one drill across the field unmanured. Out of this one drill was divided into plots side by side, measuring 4 by 3 yards, each containing eight drills. The plots were manured and sown on the 13th May, 1861, as follows:—

	Cwt. per acre.		per ton.			
No. 1. Bonedust at the rate of 2½ at £8			0	equal to	£1	0
2. Ground coprolites	5	"	4	0	"	1	0
3. Unmanured.							
4. Ground bone-ash	4	"	5	0	"	1	0
5. Superphosphate, ETK's	3	"	6	10	"	0	19
6. Dissolved coprolites	3	"	6	10	"	1	19

The soil was in a fine state of division, the weather dry, and the manures in a finely powdered state, and well mixed with ground ashes before being drilled in with the seed. On the 18th inst. the seed had all appeared above ground and very regular. On June 3rd the plants in each plot were looking well, but those in No. 1 were decidedly the most forward, and those in No. 3 the most backward. Plots 5 and 6 appeared equal throughout the season, and all were treated in the ordinary manner. The amount of phosphate of lime per cent. in the manures used were as follows:—

In No. 1. Bone dust, 55.35 per cent. phosphate of lime.
" 2. Coprolites, from 60 to 61 per cent. do.
" 3.
" 4. Bone ash, 67 per cent. do.
" 5. Superphosphate, 18.59 soluble and 2.40 insoluble } 21.03 total.
" 6. Dissolved coprolites, 21.75 soluble, and 10.35 insoluble, } 32.10 total.

On looking at the above we find that

cwt.		lbs.		
2½	of bone dust per acre is equal to	165	of phosphate of lime.
5	of ground coprolites	336	" "
4	of bone ash	300	" "
3	of superphosphate	70½	(mostly soluble)
3	of dissolved coprolites	77¼	" "

Thus showing the preponderance of insoluble phosphates in Nos. 1, 2, and 3, or the natural manures. All the plants are a great deal more green, and were attacked by mildew just before being pulled and cleaned on the 12th of October. The number and weight of the roots in each plot, with the weight per acre, was as follows:

Plots.	Manure used.	Rate per acre.	Weight of roots in plot.	Number of roots in plot.	Average per acre.
		Cwt.	lbs.		Tons.
1	Bone dust	2½	114	60	20
2	Coprolites ground to an impalpable powder	5	112	54	20
3	Unmanured		102	51	18
4	Bone ash	4	123	52	21
5	Superphosphate	3	124	58	21
6	Dissolved coprolites	3	132	56	23
	Average		118	55	

From the above statement it will be plain