

Am. Hort. Soc., who defends his position in the following letter just received from him.

SIR,—In reply to your favor of November 28th, my opinion is that *Clinton* Grape of the Northern States (first brought to notice, in N. Y., I believe) is a natural hybrid between the two species, *V. Labrusca* and *V. Riparia*. My judgment is based upon botanical characteristics of the variety itself, and that its pure seedlings sport in the two directions, sometimes producing individuals which are decidedly *Labrusca*-like, at others, greatly like *Riparia*. The *Clinton* itself frequently shows on well developed canes, *continuous tendrils* (a *Labrusca* characteristic), and the seeds are much more like *Labrusca* than *Riparia*. The shade of green in the leaf, the shape of leaf, erect stamens, etc., pulp of berry, size, etc., clearly point to other blood than *Riparia*, and that in every case *Labrusca*, as the only other species in that region of country which could impart such characteristics. Truly,

T. V. MUNSON.

Vitality of Seeds.

9. Would you please give a list of seeds showing their respective vitality.

THE following list is given our readers on the authority of the *Rural New Yorker*, as showing their respective vitality.

	Years.		Years.
Artichoke ..	5 to 6	Onion	2 to 3
Asparagus ...	2 to 3	Parsley ...	2 to 3
Beans, all		Parsnips ...	2 to 3
kinds	2 to 3	Pea	5 to 6
Beet	2 to 3	Pumpkin ...	8 to 10
Broccoli	5 to 6	Rhubarb	3 to 4
Carrot	3 to 4	Squash	8 to 10
Cress	3 to 4	Lettuce	3 to 4
Corn kept on		Melon	8 to 10
the cob ...	2 to 3	Mustard	3 to 4
Cucumber ...	8 to 10	Okra	3 to 4
Egg plant....	1 to 2	Spinach	3 to 4
Endive	5 to 6	Tomato	2 to 3
Leek	2 to 3	Turnip	5 to 6
Cauliflower..	5 to 6	Pepper	2 to 3
Celery	2 to 3	Radish	4 to 5
Chervil	2 to 3	Salsify	2 to 3
Corn salad ..	2 to 3	Lavender ..	2 to 3

Anise.....	3 to 4	Sweet marjo-	
Balm	2 to 3	ram	2 to 3
Basil	2 to 3	Summer sa-	
Caraway....	2	very	1 to 2
Coriander...	1	Sage	2 to 3
Dill	2 to 3	Thyme	2 to 3
Fennel	2 to 3	Wormwood..	2 to 3
Hyssop.....	3 to 4		

Fertilizers.

10. What is the value of swamp muck ashes for strawberries and grape vines? Also, I have quite a quantity of swamp marl, it looks like lime, and seems full of small shells—some like pin heads. What is the value of it for strawberry plants and grape vines, and what kind of soil is it best for?

REPLY BY PROF. PANTON, GUELPH, ONT.

ASHES from swamp muck, likely contain considerable potash, a very important ingredient in plant food.—It enables the Chlorophyll of the leaves to perform its functions and thus become an important factor in plant growth. As the plants referred to (strawberries and vines) have much foliage, I think an application of these ashes would be followed by good results. 2. The deposit referred to is marl, quite common in many parts of Ontario. It contains from 70 to 80 per cent. of lime in the form of calcium carbonate, sometimes small quantities of phosphate of lime, and also some iron, but its chief use is as a lime fertilizer.

Applied to heavy soil it makes it more workable by giving lightness and looseness to such. It serves as food directly, and indirectly by rendering available organic compounds in decaying vegetation.

Best suited for heavy clay lands, on which it may be applied by the waggon load.

As a special fertilizer for the plants named, I cannot say that it possesses great value, but as referred to on heavy soil would effect a good physical change, and be followed by favorable results to any plants growing upon it.

If the bed of marl is lying low and water-soaked (a common condition, its