

Whale Oil Soap as a Fertilizer.

CENTRAL EXPERIMENTAL FARM,
OTTAWA, May 14, 1900.

1158. SIR,—I have been asked to reply to the following question through the columns of the *Canadian Horticulturist*: "Can the whale oil soap used in spraying for San Jose scale benefit the tree in any other way than as an insecticide? Many orchardists state definitely that there is a marked effect upon the vigor of the tree, as shown by the color of the foliage and the improved appearance of the fruit, that can scarcely be attributed solely to the insecticidal properties of the soap."

Whale oil soap properly and honestly made will contain from 9 to 12 per cent. potash. This element, as is well known, is a valuable and important constituent of plant food, and especially so for fruit trees. It invigorates the vegetative growth and tends to the production of fruit with high flavor and good appearance.

It is not at all probable that there is any absorption of the potash from the soap spray through the bark or leaves, as some suppose; the potash, in common with other mineral foods, must be absorbed from the soil through the roots. If the potash in the soap is to act as a food to the tree it must follow the same course. It is not difficult to understand how this may readily take place, for sooner or later—probably within two or three weeks after spraying—the rains have washed off the soap and it has been received and absorbed by the soil in the immediate neighborhood of the roots. There it is gradually converted into compounds assimilable by plants.

We may now ask: Is there sufficient potash in the soap solution sprayed on the tree to make its value as a fertilizer worth considering? In making the solution for the San Jose scale, two pounds of soap are used per gallon, and probably two gallons will be required for a well grown, mature tree. Let us suppose there are 35 trees per acre. A simple calculation on the basis of 10 per cent. potash in the soap will show that the soil of each acre of orchard so sprayed receives 14 pounds of potash,

subsequently set free as plant food. This, though not a heavy application, would, in my opinion, be quite sufficient on many soils to produce a marked improvement. The usual dressing of the fertilizer, muriate of potash, is 100 lbs. per acre, equivalent to an application of 50 lbs. actual potash. Spraying with whale oil soap, therefore, it is seen, furnishes an amount of potash somewhat greater than one-fourth of that supplied when using the above named fertilizer in ordinary dressings.

FRANK T. SHUTT, C. E. F., Ottawa.

Violets Not Blooming.

1159. SIR,—Will you kindly tell me through your paper why a bed of "Maria Theresa" violets that I had planted last autumn in a cold frame have not flowered this spring? The plants are perfectly healthy, but no sign of bloom. Aspect southern, and well sheltered.

Toronto.

FLORENCE W. WADSWORTH.

The violets mentioned had not time, after being transplanted last autumn, to make and mature the growth necessary to produce flowers this spring. Allow them to grow on now undisturbed, as their healthy condition gives promise of a good supply of bloom next season. A south aspect is a very trying one for violets during July and August; partial shade, by placing over them some laths or slats of wood an inch or two apart, so as to break the direct rays of the sun and not exclude air and sunshine altogether, would be beneficial to them during the very hot weather. Give water liberally during summer. When necessary, violets should be transplanted as soon as the flowering season is over.

W. HUNT, Hamilton.

The Apple Box vs. the Apple Barrel.

SIR,—I enclose a cutting taken from the *Bridgetown Monitor* of the 18th inst., which may be of interest to you, and I should like to read your comments upon it in the next issue of *The Horticulturist*. The subject is a very important one, and if the facts are as stated by Mr. Baker, the sooner his suggestion is acted upon the better it will be for all concerned. The figures he quotes may be open to question, and I have seen it stated by dealers on the other side that for general use the barrel was the best package to use. What is your experience? Yours truly,

Annapolis, N. S.

E. D. ARNAUD.