

PHYTOPHTHORA BLIGHT OF POTATOES.

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This dangerous disease is known in many countries. Though rare during the first years of potato cultivation in Palestine, this disease, once it appeared, has spread more and more, assuming an epidemic character in certain places, and causing considerable damage to the potato crop. Since the causal agent of the disease adheres to the peel of the tubers, the increased import of potatoes increases the danger of an outbreak. A further fact making for the spread of the disease is the increased area under potatoes in winter and spring, seasons which are most favourable for its development. The disease occurs in 2 forms:

- 1) Blight of the plant above the soil surface (stem, leaves),
- 2) Rot of the tubers.

The first form is most common in Palestine and the most destructive in the field. The second form, the tuber disease, does not occur on tubers grown in Palestine but on tubers imported for seed from foreign countries. The intensity of infection varies. The incidence of infection found by us reached 5%.

The disease causing agent is described.

At temperatures above 25—26°C, no development of the disease occurs. The optimum temperatures for development are between 13 and 24°C. Sudden temperature variations within the above range (13—24°C) are particularly favourable for the development of the fungus. The spread of the disease is therefore particularly marked in seasons of cold nights and warm humid days.

We found the causal agent on potatoes in Palestine only during February, March and half of April. After this time, the hot and dry winds and the rising temperature stop the development of the disease. The blight has not yet occurred on autumn potatoes, i. e. on potatoes sown during August to October in this country.

Practical Instructions.

- a) Selection of potato seed. b) Disinfection of potato seed.
- c) Spraying of plants with Bordeaux mixture 1% 3—4 times during the season.

Spraying is begun when the plant attains to a height of 10—15 cm. and is repeated at intervals of 10—14 days. The pressure of a large spray-machine should be 11—25 Atm. and of smaller spray-machines up to 10 Atm.
