

Epidemiology of potato diseases

Focus on Phytosanitary control of seed and ware potatoes, especially on potato brown rot

Presented by DR Aly Soliman Head central

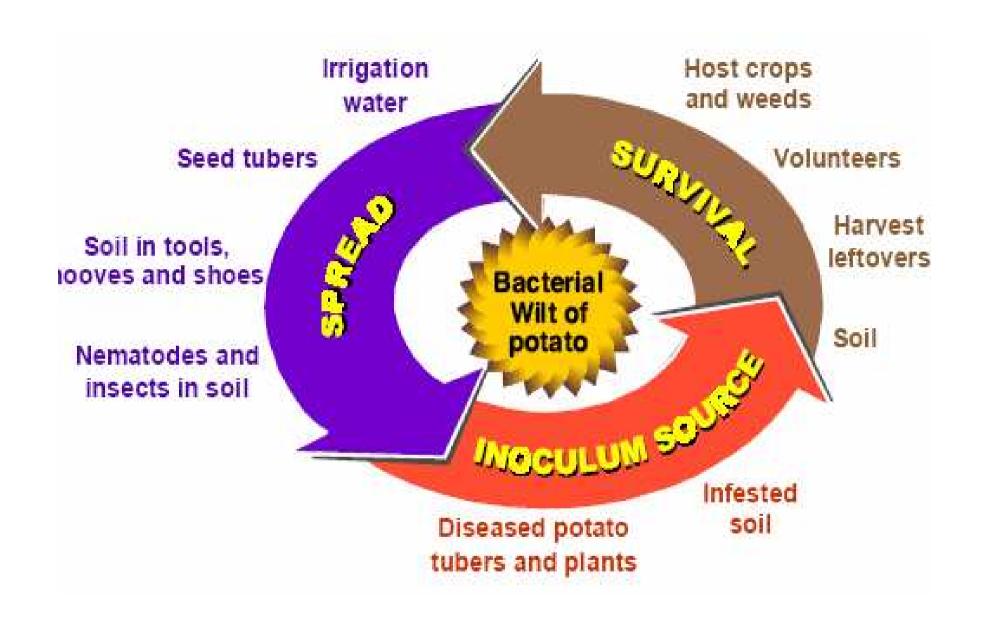
Potatoes considered the most important vegetable crop in exportation. The potato export to EU reach up to 382000 tones a year which represents about 80% of African export potato.

Bacterial wilt, caused by Ralstonia solanacearum is a very destructive plant disease that attacks over 450 different species, including many of the most important economic crop plants, as tomato, potato, banana, tobacco, eggplant and a few ornamental plants, such as geranium (Elphinstone 1998).

Race 3: affect mainly potatoes and tomatoes without a high virulence other solanaceous crops.

Routes of Transmission

- **■** The potato seeds
- **■** Irrigation water, drainage water
- **■** Weeds and some aquatic plants
- Soil
- Root to root



DISEASE CYCLE OF BACTERIAL WILT

Potato Plant Health system in Egypt

- Egypt imports seed potatoes which are inspected and transported to licensed storage facilities where they are further inspected and sampled.
- Potatoes are released if certified free from brown rot. These potatoes are used for seed multiplication in PFAs during the summer season

Production of healthy seeds

- Potato seeds must be tested using different methods based on different levels microbiological, biochemical, serological, bioassays and molecular biology
- Potato seeds in spring seasons must be cultivated in best free area.

Soil test



Weed test



Soil preparation



Healthy field



Sampling





Coding



Lab inspection



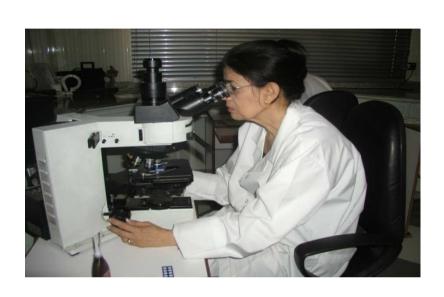
Bar coding



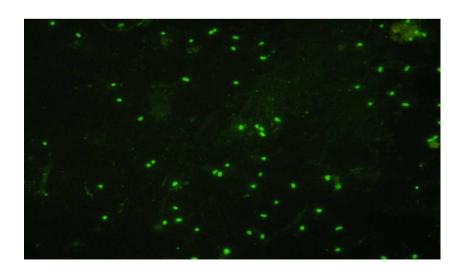
IF test



Microscopic examination







Data analysis



Bioassay test



Thank you

