

# STUDY CASE

## ***RALSTONIA SOLANACEARUM*** **FOUND ON A LOCAL MARKET IN BiH**

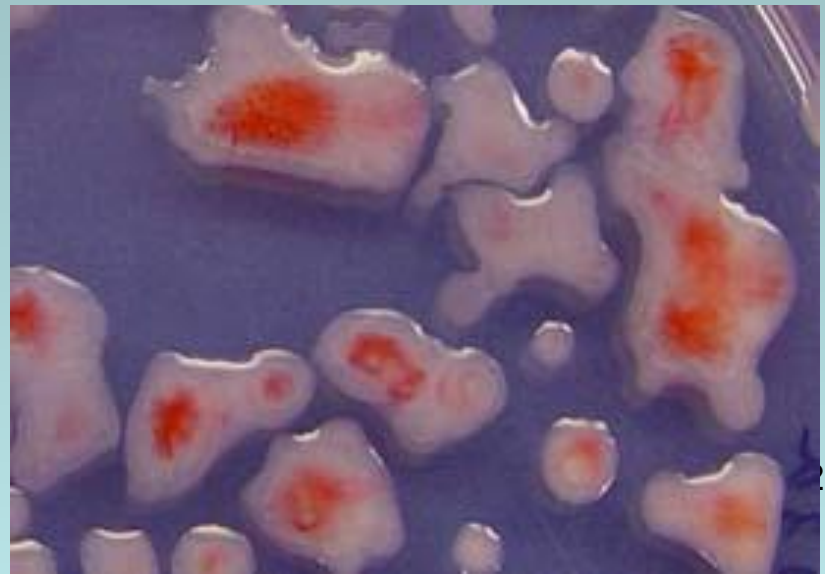


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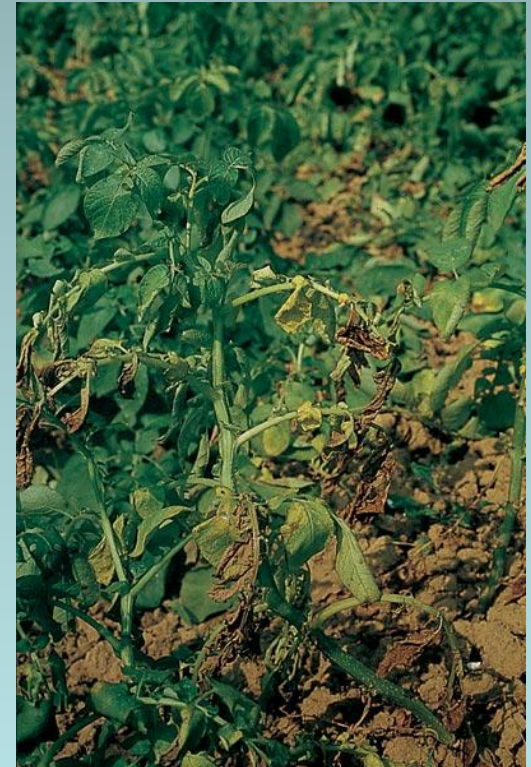
# Content

- What is *Ralstonia solanacearum*?
- Range of host plants
- Means of local movement
- Means of dispersal
- Scenario of a possible crisis situation



# What is *Ralstonia solanacearum*?

- It is a soil-borne bacterial pathogen
- On potatoes foliage symptoms include rapid wilting of leaves and stems; cutting the diseased tuber will reveal a browning and eventual necrosis of the vascular ring and immediately surrounding tissues





# Range of host plants

- The main host is potatoes (*Solanum tuberosum*) and a number of other Solanaceae species (e.g. tomatoes)
- The bacterium also affects a number of other plants, such as: bananas, aubergine, pelargonium, also wild plants such as *Solanum dulcamara*, *Urtica dioica*, etc.



## Means of local movement

- Sources of inoculum for agricultural fields and methods of spread include irrigation and surface water, aquatic weeds, infested soil and field weeds, contaminated planting material, latently infected vegetative propagative material, and contaminated farm tools and equipment





# Means of dispersal

- On longer distances, the bacterium can be spread with contaminated plants and plant material, but also with contaminated means of transport and other handling material (e.g. sacks, boxes, etc.)
- Water streamlines and contaminated soil can also contribute to long-distance contaminations



## Possible scenario

- During routine inspection on a local market an inspector spots potatoes offered by a seller; certain potatoes seem a bit suspected
- The inspector cuts suspected tubers and finds symptoms indicating possible presence of bacteria
- Interview with the seller shows that he is a small local farmer, selling his own production
- The seller declares that he has been using his own potatoes for reproduction for several years now
- The seller lives in a small village where his neighbours have similar potato productions



## The task for you:

To identify measures to be taken by plant health services in order to:

- Eradicate the bacterium
- Recognize potential spread of the bacterium
- Identify possible source of contamination
- Prohibit further potential spread of the bacterium





**GOOD LUCK !!! 😊**

