

MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Recommendation Sheet No. 103

December 97

CONTROL OF MAJOR DISEASES OF POTATO

Late blight, early blight, bacterial wilt and common scab are the diseases that should be controlled in commercial potato plantations.

Late blight

It is caused by the fungus, *Phytophthora infestans* and is favoured by cool and wet conditions. Control measures vary with regions and varieties.

For susceptible varieties (Up to date, Delaware and Mondial):

Region	Control	g/300 L of water/ha interrow	g/125 L of water/arp interrow
Superhumid	Alternate weekly treatments: Week 1. Ridomil MZ 70 + Dithane M45 Week 2. Dithane M45 alone	710 + 770 1550	300 + 325 650
Humid / Subhumid	Weekly treatments of either Faycozeb or Dithane M45	1700 1550	715 650
	Under cool and wet conditions, use Ridomil MZ 70 + Dithane M45	710 + 770	300 + 325

For tolerant varieties (Spunta and Sterling):

Control	g/300 L of water/ha interrow	g/125 L of water/arp. interrow
Weekly treatments of either Faycozeb or Dithane M45	1700 1550	715 650
Under cool and wet conditions,use Ridomil MZ 70 + Dithane M45	710 + 770	300 + 325
Weekly treatments of either Faycozeb or Dithane M45	1700 1550	715 650
Application of Ridomil MZ 70 + Dithane M45 is usually unnecessary		
	Weekly treatments of either Faycozeb or Dithane M45 Under cool and wet conditions,use Ridomil MZ 70 + Dithane M45 Weekly treatments of either Faycozeb or Dithane M45 Application of Ridomil MZ 70 +	Weekly treatments of either Faycozeb 1700 or Dithane M45 1550 Under cool and wet conditions,use Ridomil MZ 70 + Dithane M45 710 + 770 Weekly treatments of either Faycozeb 1700 or Dithane M45 1550 Application of Ridomil MZ 70 +

Early blight

It is caused by the fungus, *Alternaria solani*. It develops late in the crop cycle under alternating wet and dry periods. It can be controlled by using:

	ml/300 L of water/ha interrow	ml/125 L of water/arp interrow
Score 250 EC	175	75
Complement	240	100

Treatment should start at the onset of infection and should be repeated fortnightly. Under conditions favourable to the disease or upon the appearance of patches of infection, spraying should be carried out weekly.

Bacterial wilt

It is caused by the bacterium, Ralstonia solanacearum, and is both a soil- and seed-borne disease.

It is present in most soils and is favoured by warm and humid conditions. Most commercial varieties available at present are susceptible to the disease.

Bacterial wilt is not controlled by pesticides so crop rotation and disease evasion must be practised as follows:

- avoid planting fields that have recently been under solanaceous crops, e.g. tomato, tobacco, eggplant or potato
- do not plant before mid-March or after the first week of September.

Common scab

It is caused by the bacterium *Streptomyces scabies* and is a seed-borne disease. It can be controlled by dusting the seeds before planting with:

Dithane M45 @ 3 g / kg of seeds

