



MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE

Recommendation Sheet

August 2010, No 176

FUNGICIDE TREATMENT FOR THE CONTROL OF PINEAPPLE SETT ROT OF SUGARCANE

Pineapple sett rot is a disease caused by the fungus *Ceratocystis paradoxa* which affects sugar cane cuttings or setts, resulting in poor germination. The pathogen is present in the soil and some strains are more aggressive than others.

Disease symptoms

Infected cuttings show a dark red coloration of the internal tissue and may have a smell of ripe pineapple. The centre of the cutting breaks down, becomes depressed and is filled with a black dust of spores.

Diseased cuttings do not germinate as the bud or the root band or both become impaired and do not develop.

Extreme conditions that stress the cuttings, namely hot weather and lack of moisture or cold weather and water logged soils induce the onset of the disease.

Control method

- For control, cuttings should be treated with a fungicide.
- **The use of benomyl should be discontinued as this fungicide is no longer approved by the European Union.**

Two alternative fungicides can be applied:

difenoconazole (Score 250 EC)

OR

thiophanate-methyl (Topsin M ULV)

They can be incorporated in a cold or hot dip solution or sprayed.



Method	Fungicide recommended	Rate / L	Remarks
Cold dip	difenoconazole (Score 250 EC) or thiophanate-methyl (Topsin M ULV)	1 ml	Cuttings should be completely immersed for at least 30 seconds 50 litres of fungicide solution can treat approximately 3000 cuttings Renew the solution when it turns dirty
Hot water at 50 °C for 0.5, 2 or 3 h		0.5 ml	Empty tank and renew fungicide solution when the water becomes muddy
Spraying		1 ml	Ensure thorough cover of whole surface, particularly ends of cuttings

Notes:

1. The addition of a dye such as Basazol Red 71L at 1 ml per 10 litres of dip solution is useful for observing whether cuttings have been properly treated and to differentiate treated cuttings from untreated ones.
2. Thorough mixing of the fungicide solution is necessary to avoid deposit of the ingredients. The concentration of the fungicide, particularly in large tank mix, should be monitored to maintain the optimal concentration of the active ingredient. A quantitative determination of **thiophanate-methyl** is available from the manufacturer. The concentration of **difenoconazole** can be estimated by a method of analysis by spectrophotometry developed by our Agricultural Chemistry Department. For details on the methods, please contact the MSIRI.

**This Recommendation Sheet replaces No. 9 of July 1981*

Your attention is drawn that guideline and/or advice is restricted for the purpose for which it is recommended only. MSIRI board shall not be responsible for any act that may arise out outside the purview of these guidelines.

Published by the MAURITIUS SUGAR INDUSTRY RESEARCH INSTITUTE, Réduit



454 1061, 466 8800



<http://www.msiri.mu>



spd@msiri.mu