



Resistant varieties
are the only solution to
Pachymetra root rot



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*Pachymetra root rot (Pachymetra) is a major disease which will reduce your yields. In a survey of the Tully Mill area in 2004, the economic loss from Pachymetra totalled over \$900 000. **Resistant varieties are the only control to this disease.***

If you are planning on replanting your block, contact your local productivity services group to collect soil samples to test for Pachymetra.

These samples are sent to the SRA laboratory for Pachymetra severity analysis to identify the number of spores and provide you with a management recommendation.

Checking Pachymetra
levels in your blocks

Soil samples should be taken before plough out as it is recommended they come from standing crops within the plant row. Spore levels are much higher in the cane row—up to 20 times higher than in the inter-row.

The spores are scattered and diluted after plough out and it is difficult to collect a representative sample once blocks have been cultivated. Management recommendations for fallow ground (see **Table 1**), however, take this dilution effect into account.

Planting resistant varieties will reduce the spore count over the crop cycle because the disease will not thrive within the roots of a resistant variety. Pachymetra spores may last for up to five years in soil. Planting a break crop or exposing the soil to the sun will have minimal effect on the disease levels in your soil, and leaving your block bare fallow for five years is not recommended.

Table 1: Pachymetra root rot spore count thresholds.

Current crop	Spore count ranges from soil sample results	Expected yield loss
Resistant varieties	0 – 45 000	Nil
	45 000 – 80 000	Very low
	Greater than 80 000	Low
Intermediate resistant varieties	0 – 40 000	Nil to low
	40 000 – 70 000	Medium
	Greater than 70 000	High
Susceptible varieties	0 – 30 000	Nil to low
	30 000 – 50 000	Medium
	Greater than 50 000	High
Fallow ground	0 – 30 000	Low
	30 000 – 50 000	Moderate
	Greater than 50 000	High



Left: Pachymetra root rot.

Recommended varieties for planting to reduce *Pachymetra* levels

In blocks with high spore counts (see **Table 1**), plant varieties that are resistant to *Pachymetra*. **Table 2** lists the range of varieties available in each region which will control the disease well while still maintaining yields.

Table 2

Region	Recommended varieties rated as resistant to <i>Pachymetra</i> root rot
Northern Coastal	Q251 ^Φ , Q241 ^Φ , Q238 ^Φ , Q231 ^Φ , Q219 ^Φ , Q183 ^Φ
Tableland	Q241 ^Φ , Q231 ^Φ , Q183 ^Φ
Herbert	Q253 ^Φ , Q247 ^Φ , Q242 ^Φ , Q238 ^Φ , Q231 ^Φ , Q219 ^Φ , Q215 ^Φ , Q190 ^Φ , Q183 ^Φ
Burdekin	Q253 ^Φ , Q247 ^Φ , Q238 ^Φ , Q183 ^Φ
Central	Q247 ^Φ , Q242 ^Φ , Q238 ^Φ , Q212 ^Φ , Q209 ^Φ , Q190 ^Φ , Q183 ^Φ , Q138
Southern	Q245 ^Φ , Q242 ^Φ , Q238 ^Φ , Q235 ^Φ , Q212 ^Φ , Q183 ^Φ , Q138
NSW	Q242 ^Φ , Q235 ^Φ , Rogan, Q211 ^Φ , Q205 ^Φ , Q190 ^Φ , Q188 ^Φ , Q183 ^Φ

- *Pachymetra* root rot will reduce your yields.
- Resistant varieties are the only way to control this disease.
- Poor yields, failed ratoons, stool tipping and soil in cane supply may be the result of *Pachymetra*.

- It is impossible to tell if a crop is infested with *Pachymetra* unless the roots are examined or a soil sample is analysed.
- Contact your local productivity services group to take a soil sample for analysis. The SRA soil assay laboratory will provide you with a management recommendation.



Above: The left of the photo shows low growth of Q208^Φ planted in soil with a high *Pachymetra* spore count. The previous variety was Q208^Φ which is not resistant to *Pachymetra*. The right of the photo shows better growth of Q208^Φ where it is planted in a soil with low *Pachymetra* spore count. The previous variety was Q183^Φ which is resistant to *Pachymetra*. (Photo courtesy of Allan Royal, Mackay Area Productivity Services)