Foliar Diseases in Greenhouse Vegetables

Issue 3 **January 2010**

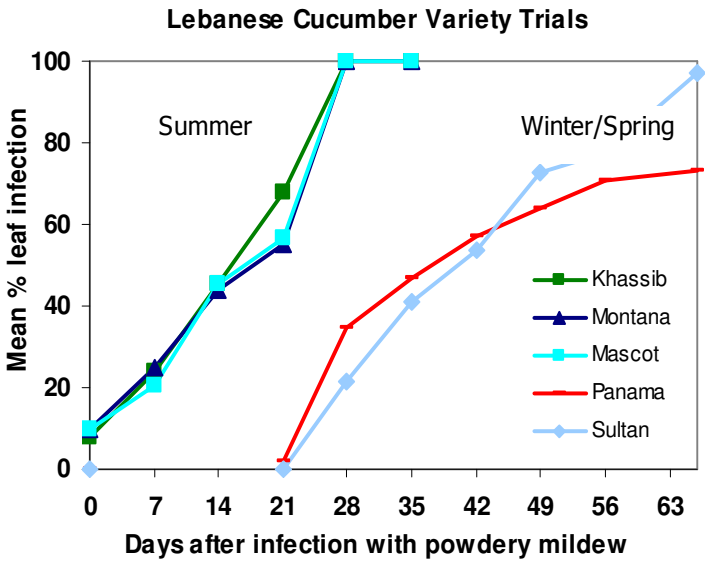
This newsletter is an update on the research project aimed at improving the sustainability of foliar disease management in greenhouse vegetables. The project commenced in June 2006 and will conclude in July 2010 and is funded by the Vegetable Levy and the Commonwealth Government through Horticulture Australia Limited. Copies of Issue 1 (March 2007) and Issue 2 (December 2008) available on request.

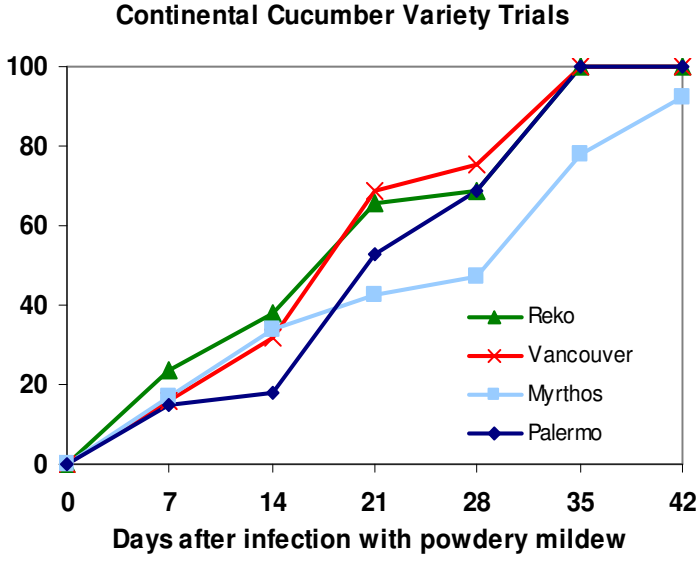
In this issue: Variety Trials for Cucumber and Capsicum Powdery Mildew

Cucumber Varieties

Fourteen Lebanese and seven continental varieties were evaluated for resistance to powdery mildew. Results showed;

- All varieties were susceptible
- Disease progressed more rapidly in summer
- Some varieties had less disease later (e.g. Panama and Myrthos)
- Some varieties showed a delay in the onset of powdery mildew (e.g. Palermo)





Implications for management:

→ Start management early, especially in summer

→ Varieties with delayed disease onset could give you time to spray while infection is still low

→ Less susceptible varieties could allow production to be extended by 2 or 3 weeks

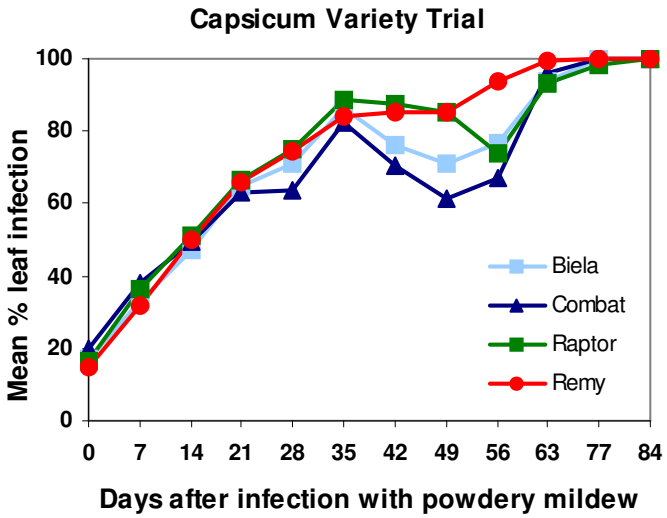
Capsicum Varieties

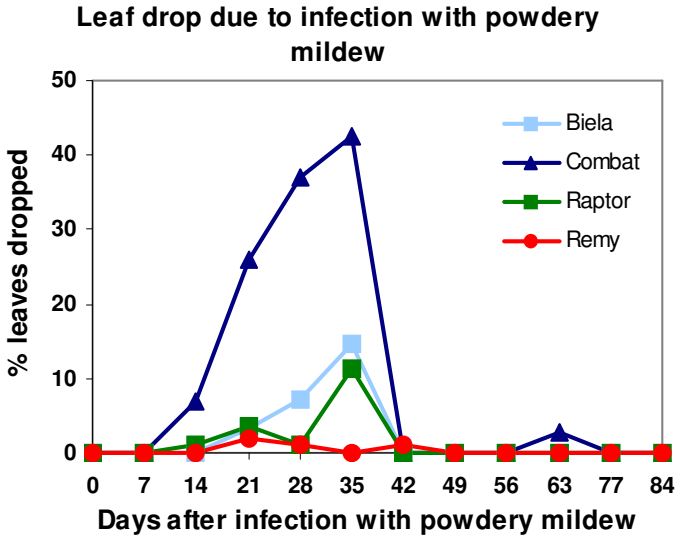
Results from 4 capsicum varieties are shown (right)

- All varieties were susceptible
- Disease developments was similar in all varieties up to Day 28
- Infection decreased in Biela and Combat due to drop of severely infected leaves (below right)
- Remy had severe infection but didn't drop leaves

Implications for management:

Using varieties that don't drop leaves provides protection for fruit from sunscald and maintains photosynthetic ability





CONCLUSIONS

Varietal selection can help manage powdery mildew on cucumbers and capsicums by:

- **Delaying the onset of disease**
- **Having less disease, particularly late in the crop**
- **Retaining leaves during severe infections**

Less susceptible varieties will not halt the spread of powdery mildew completely and must be used as part of an integrated management program

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In the next issue May 2010:
Spray program trials for powdery mildew

This project was facilitated by HAL in partnership with AUSVEG and was funded by the National Vegetable Levy. The Australian Government provides matching funding for all HAL's R&D activities.