

New fungicides and biofungicides for control of powdery mildew (*Erysiphe cruciferarum*) in Brassicas (Swede)

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Objectives

- To identify novel products (both fungicide and biofungicide) for the control of powdery mildew in Brassicas, and compare these against existing industry standards
- Assess crop safety of novel products

Methods

- Small plot replicated trials, artificially inoculated in polythene tunnels in 2012
- Test 11 fungicide products (1 spray) and 11 biofungicide products (4 sprays) (Figs 3 and 4)



Figure 1: Developing powdery mildew symptoms

Results – 2012 trials

Fungicides

- At 28 days post inoculation the most effective fungicides were Rudis, SWE-24, SWE-89, SWE-28, SWE-29, SWE-88, SWE-10, SWE-137, SWE-25a, SWE-138, and SWE-46

Biofungicides

- At 18 days post-inoculation, the most effective products were SWE-136, SWE-90, SWE-134, SWE-105, SWE-06, SWE-115, SWE-38, SWE-03, SWE-43 (and Rudis)



Figure 2: Untreated compared to Rudis

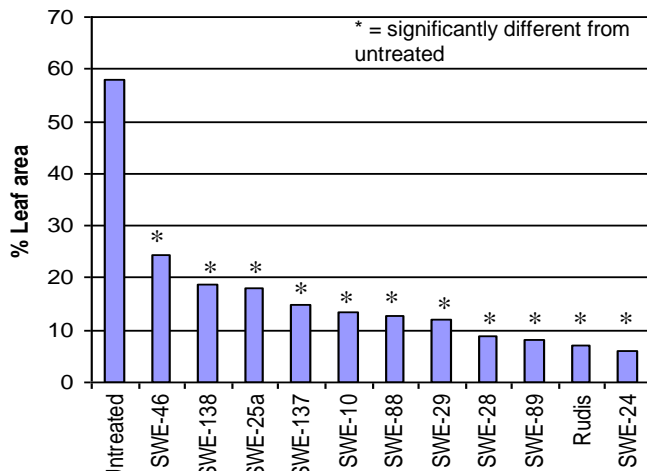


Figure 3. Fungicide Products

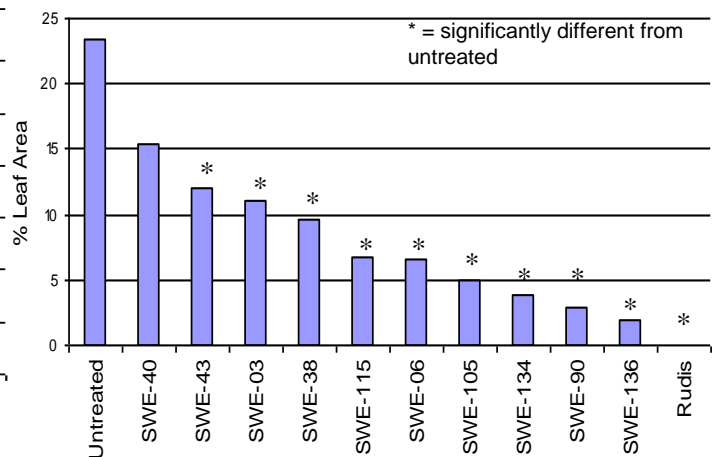


Figure 4. Biofungicide Products

Conclusions

- Fungicide experiment: 11 products were significantly more effective than the control, with 3 new products equivalent to the commercial standard (Rudis)
- Biofungicide experiment: 9 products were significantly more effective than the untreated at 18 days, although only SWE-136, SWE-90 and Rudis were significantly more effective at 28 days
- The best products will be evaluated within treatment programmes in field experiments

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