

Summary

In a dry season, no diseases were seen until 10 July. By this time the crop was already reaching maturity. Small soil differences were accentuated by the drought and site variation completely overwhelmed any treatment effects.

Object

To investigate the effects of a range of candidate fungicides and fungicide programmes on disease incidence and yield of Solara, a modern semi-leafless pea variety.

Treatments and method

Fungicide treatment - rate of products in l/ha in brackets:

	Early flower buds GS 201 (20 May)	First pod set GS 204 (7 June)	Flat pod GS 205 (21 June)
1	Nil	Nil	Nil
<u>Products</u>			
2	-	Ronilan FL (1.0)	Ronilan FL (1.0)
3	-	Bravo (3.0)	Bravo (3.0)
4	-	Bavistin(1.0)ø	Bavistin (1.0)ø
5	-	Bravocarb (2.0)	Bravocarb (2.0)
6	-	Compass (3.0)	Compass (3.0)
7	-	NAS F 113	NAS F 113
8	-	NAS F 124	NAS F 124
9	-	Rovral (2.0)	Rovral (2.0)
<u>Sequences and mixtures</u>			
10	-	Ronilan FL (1.0) + Bravo (3.0)	-
11	-	-	Ronilan FL (1.0) + Bravo (3.0)
12	-	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)
13	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)
14	-	Ronilan FL (0.5) + Bravo (1.0)	Ronilan FL (0.5) + Bravo (1.0)
15	-	Ronilan FL (0.5) + Bravo (1.0) + Bavistin (0.5)	Ronilan FL (0.5) + Bravo (1.0) + Bavistin (0.5)
16	-	Bravo (1.0) + Bavistin (0.5)	Bravo (1.0) + Bavistin (0.5)

ø = with added wetter

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Treatments were in four randomised blocks and applied in 200 l/ha using a knapsack sprayer to power a 4 m boom equipped with 8003 flat fan jets.

Results

Disease

Regular inspection of the untreated plots failed to reveal any disease up to late June in this dry season. However, on 10 July low levels of late *Mycosphaerella pinodes* were noted on leaves and pods but it was too variable to justify assessment.

Grain yield at 85% dm

	Early flower buds GS 201 (20 May)	First pod set GS 204 (7 June)	Flat pod GS 205 (21 June)	Grain yield (t/ha)
(LSD)				(NS)
1	Nil	Nil	Nil	3.69
<u>Products</u>				
2	-	Ronilan FL (1.0)	Ronilan FL (1.0)	3.88
3	-	Bravo (3.0)	Bravo (3.0)	3.86
4	-	Bavistin (1.0)∅	Bavistin (1.0)∅	4.42
5	-	Bravocarb (2.0)	Bravocarb (2.0)	3.93
6	-	Compass (3.0)	Compass (3.0)	3.77
7	-	NAS F 113	NAS F 113	3.85
8	-	NAS F 124	NAS F 124	4.08
9	-	Rovral (2.0)	Rovral (2.0)	3.91
<u>Sequences and mixtures</u>				
10	-	Ronilan FL (1.0) + Bravo (3.0)	-	3.82
11	-	-	Ronilan FL (1.0) + Bravo (3.0)	3.39
12	-	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)	3.75
13	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)	3.79
14	-	Ronilan FL (0.5) + Bravo (1.0)	Ronilan FL (0.5) + Bravo (1.0)	3.74
15	-	Ronilan FL (0.5) + Bravo (1.0) + Bavistin (0.5)	Ronilan FL (0.5) + Bravo (1.0) + Bavistin (0.5)	3.54
16	-	Bravo (1.0) + Bavistin (0.5)	Bravo (1.0) + Bavistin (0.5)	3.40
S.E. per plot (45 d.f.) or as % G.M.				±0.619 16.3%

∅ = with added wetter

(NS = no significant difference)

The dry season led to small soil differences having a large effect on maturity and yields. Thus, any possible small responses to treatment in this low disease year were completely masked by the above average site variation.

D.B. Stevens
G.M. Palmer

COMBINED PEAS - DISEASE CONTROL, PRODUCTS AND TIMINGS, 1990

Site: Morley
Soil type: Sandy loam over Chalky Boulder Clay (Ashley series)
Previous cropping: Winter wheat

Diary

12 March Seedbed prepared by a single pass with power-harrow on winter ploughed stubbles

13 March Trial drilled using Nordsten. Seedbed with friable tilth and some moisture present

16 March Farm rolled trial site to conserve moisture and as a preparation for weed control (Opogard sprayed at 2.3 l/ha)

9 May Farm applied post-emergence herbicides overall (Pulsar at 4.0 l/ha + Fortrol at 0.4 l/ha)

22 May Early fungicide treatment applied at flower buds stage

30 May Farm applied Mantec (1.0 kg/ha), as a precaution against manganese deficiency, and Hostathion (0.84 l/ha) for pest control.

7 June Flowering stage with the first pods set. Applied main mid-season fungicide treatments

21 June Flowering period finished, pods filling. Applied late fungicide treatments

27 July Combined trial. No serious crop lodging.