

Summary

In a trial carried out on Solara, a semi-leafless protein pea, there were no disease symptoms because of predominantly dry conditions. There were no significant effects on either yield or grain size from a range of fungicide treatments with different fungicides and dose rates.

Object

To investigate the effects of various candidate fungicides and fungicide programmes on the 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:

	Flower buds visible GS 201 (9 June)	First pod set GS 204 (20 June)	Pod filling stage GS 206 (4 July)
1	Nil	Nil	Nil
2	-	Ronilan FL (1.0)	Ronilan FL (1.0)
3	-	Bravo (3.0)	Bravo (3.0)
4	-	NAS F106	NAS F106
5	-	Ronilan FL (1.0) + Bravo (3.0)	Ronilan FL (1.0) + Bravo (3.0)
6	-	Ronilan FL (0.5) + Bravo (1.0)	Ronilan FL (0.5) + Bravo (1.0)
7	Ronilan Fl (0.5) + Bravo (1.0)	Ronilan FL (0.5) + Bravo (1.0)	Ronilan FL (0.5) + Bravo (1.0)
8	-	Ronilan FL (1.0) + Bravo (3.0) + Bavistin FL (1.0)	Ronilan FL (1.0) + Bravo (3.0) + Bavistin FL (1.0)
9	-	Ronilan FL (0.5) + Bravo (1.0) + Bavistin FL (0.5)	Ronilan FL (0.5) + Bravo (1.0) + Bavistin FL (0.5)
10	Ronilan FL (0.5) + Bravo (1.0) + Bavistin FL (0.5)	Ronilan FL (0.5) + Bravo (1.0) + Bavistin FL (0.5)	Ronilan FL (0.5) + Bravo (1.0) + Bavistin FL (0.5)
11	-	Ronilan FL (0.5) + Bavistin FL (0.5)	Ronilan FL (0.5) + Bavistin FL (0.5)
12	-	Bravo (1.0) + Bavistin FL (0.5)	Bravo (1.0) + Bavistin FL (0.5)

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Treatments were laid out in randomised blocks with 4 replicates. All treatments were applied by knapsack sprayer in 200 l/ha water using 8003 flat fan nozzles.

Results

Crop establishment

Good emergence from seed sown on 28 March at approximately 300 kg/ha gave a mean plant population of 89/m².

Disease

The season, which started with a spell of wet weather in April, became exceptionally dry in May (rainfall for May = 9.9 mm) and early June. There were no disease symptoms on foliage or pods at any stage on any treatment.

Grain yields and thousand grain weights at 85% dm

Flower buds visible (9 June)	First pod set (20 June)	Pods filling (4 July)	Grain yield (t/ha)	1000 G.W. (g)
(LSD)			(NS)	(NS)
1 Untreated	-	-	4.72	355.8
2 -	Ronilan(1.0)	Ronilan(1.0)	5.03	354.5
3 -	Bravo(3.0)	Bravo (3.0)	4.93	359.2
4 -	NAS F106	NAS F106	4.96	358.2
5 -	Ron(1.0)+Brav(3.0)	Ron(1.0)+Brav(3.0)	4.98	359.7
6 -	Ron(0.5)+Brav(1.0)	Ron(0.5)+Brav(1.0)	5.05	358.5
7 Ron(0.5)+Brav(1.0)	Ron(0.5)+Brav(1.0)	Ron(0.5)+Brav(1.0)	4.86	358.3
8 -	Ron(1.0)+Brav(3.0) +Bav(1.0)	Ron(1.0)+Brav(3.0) +Bav(1.0)	4.97	360.9
9 -	Ron(0.5)+Brav(1.0) +Bav(0.5)	Ron(0.5)+Brav(1.0) +Bav(0.5)	4.85	357.10
10 Ron(0.5)+Brav(1.0) +Bav(0.5)	Ron(0.5)+Brav(1.0) +Bav(0.5)	Ron(0.5)+Brav(1.0) +Bav(0.5)	4.91	358.0
11 -	Ron(0.5)+Bav(0.5)	Ron(0.5)+Bav(0.5)	4.85	355.6
12 -	Brav(1.0)+Bav(0.5)	Brav(1.0)+Bav(0.5)	4.90	354.7
S.E. per plot (33 d.f.) or as % G.M.			±0.238 4.8	±5.00 1.4

Rates of product() in l/ha

Although all treatments appeared to increase yields compared with the unsprayed control plots, the differences were not statistically significant.

Fungicide treatments did not affect grain size.

G.M. Palmer

COMBINED PEAS - DISEASE CONTROL, PRODUCTS AND TIMINGS, 1989

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

Diary

28 March Ploughed land cultivated by power harrow to produce moist seedbed. Trial drilled with Øyjard. Variety: Solara.
29 March Trial area rolled.
31 March Farm sprayed Opogard (2.0 l/ha) overall for weed control.
3 May Satisfactory emergence (89 plants/m²).
17 May Farm applied overall tank mix of Cypermethrin (0.25 l/ha) + Chelated manganese (3.0 l/ha) for aphid control and relief of manganese deficiency.
9 June Applied 'flower buds visible' treatments.
14 June Farm applied overall tank-mix of Decis (0.25 l/ha) and Metasystox (0.41 l/ha) to control aphids and thrips.
20 June Applied 'first pod set' treatments.
4 July Applied 'pods filling' treatments.
1 August Trial combined. No lodging.