

CONFIDENTIAL*MORLEY RESEARCH CENTRE**

NAS 938 ML 1992

(1st year)

Experiment report

Crop Winter beans
Title Disease control

Summary

In a trial on Bourdon winter beans a late attack of bean rust was significantly reduced by 2-spray programmes with Kombat protectant fungicide and also by two new systemic fungicides. There was no benefit to yield.

Manager G M Palmer

Object To evaluate a range of fungicides for disease control in winter beans and assess the yield response from protectant sprays applied as single or 2-spray programmes

Site Hope Field, Morley Research Centre

*Not for publication without the Director's consent. This report deals primarily with only one year's work, so any conclusions given are provisional.

Method

Treatments

Fungicide(rate of product/ha)		
Early flower		Late flower
1	Untreated	Untreated
2	Benlate(1.1 kg)+wetter	Benlate(1.1 kg)+wetter
3	Bravo(3.0 l)	Bravo(3.0 l)
4	Ronilan(1.0 l)	Ronilan(1.0 l)
5	Rovral(2.0)	Rovral(2.0 l)
6	Compass(3.0 l)	Compass(3.0 l)
7	Folio(2.0 l)	Folio(2.0 l)
8	Kombat(2.8 kg)	Kombat(2.8 kg)
9	Bravocarb(2.0 l)	Bravocarb(2.0 l)
10	NAS F146	NAS F146
11	NAS F148	NAS F148
12	Benlate(1.1 kg)+Bravo(1.0 l)	-
13	-	Benlate(1.1 kg)+Bravo(1.0 l)
14	Benlate(1.1 kg)+Bravo(1.0 l)	Benlate(1.1 kg)+Bravo(1.0 l)
15	Benlate(1.1 kg)+Bravo(1.0 l)	Benlate(1.1 kg)+Bravo(1.0 l) +Corbel(0.5 l)
16	Compass(1.5 l)	Compass(1.5 l)

Layout Randomised block with 4 replicates

Results and discussion

Table 1. % Rust (3 Aug) and grain yield (t/ha at 85% dm)

Fungicide (rate of product/ha)			%Rust	Yield
Early flower	Late flower			
1	Untreated	Untreated	38	5.09
2	Benlate(1.1 kg)+wetter	Benlate(1.1 kg)+wetter	23	5.32
3	Bravo(3.0 l)	Bravo(3.0 l)	26	5.23
4	Ronilan(1.0 l)	Ronilan(1.0 l)	34	5.19
5	Rovral(2.0 l)	Rovral(2.0 l)	20	5.21
6	Compass(3.0 l)	Compass(3.0 l)	19	5.33
7	Folio(2.0 l)	Folio(2.0 l)	14	5.10
8	Kombat(2.8 kg)	Kombat(2.8 kg)	12	5.19
9	Bravocarb(2.0 l)	Bravocarb(2.0 l)	20	5.11
10	NAS F146	NAS F146	10	5.39
11	NAS F148	NAS F148	10	5.42
12	Benlate(1.1 kg)+Bravo(1.0 l)	-	41	4.84
13	-	Ben(1.1 kg)+Bravo(1.0 l)	21	5.24
14	Ben(1.1 kg)+Bravo(1.0 l)	Ben(1.1 kg)+Bravo(1.0 l)	18	5.41
15	Ben(1.1 kg)+Bravo(1.0 l)	Ben(1.1 kg)+Bravo(1.0 l) +Corbel(0.5 l)	15	5.37
16	Compass(1.5 l)	Compass(1.5 l)	28	5.11
LSD			10.8	NS
SE per plot (45 df) =			±7.6	±0.224
or as %GM			35.1	4.3

Disease levels were low for most of the season but there was a late attack of bean rust (*Uromyces fabae*) at the end of July. There was a significant reduction of rust following the 2-spray programmes with Kombat or the two coded products compared with the untreated or single early spray with Benlate + Bravo.

Yield was not significantly affected by treatment.

Appendix

Details of other disease assessments and field and experiment diary are available on request.