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Yields of the Field Experiments 1987

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87/R/WW/5 Aphicide, N and Fungicide - W. Wheat
Rothamsted Experimental Station
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United Kingdom
1988

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87/R/WW/5

WINTER WHEAT

APHICIDE, N AND FUNGICIDE

Object: To determine the economic thresholds for cereal aphids with different levels of inputs - Delafield.

Sponsor: N. Carter.

Design: 3 randomised blocks of 12 plots.

Whole plot dimensions: 3.0 x 12.0.

Treatments: All combinations of:-

1. APHICIDE Aphicides (applied in 200 l):

NONE	None
PIRIMICA	Pirimicarb applied at 0.14 kg on 23 June, 1987, 3 July and 16 July
2. N RATE Nitrogen fertilizers (kg N) as 'Nitram' on 14 Apr, 1987:

80	
120	
160	
3. FUNGICIDE Fungicides:

NONE	None
31+39+59	Fungicide sprays at growth stage 31, 39, 59: G.S. 31 - Prochloraz at 0.40 kg and carbendazim at 0.15 kg in 380 l on 6 May, 1987 G.S. 39 - Propiconazole at 0.12 kg in 200 l on 28 May G.S. 59 - Propiconazole at 0.12 kg with carbendazim at 0.25 kg and maneb at 1.5 kg in 200 l on 23 June

Basal applications: Weedkillers: Clopyralid at 0.07 kg and bromoxynil at 0.34 kg with mecoprop at 2.5 kg in 200 l. Glyphosate at 1.4 kg in 200 l. Growth regulator: Chlormequat at 1.6 kg in 200 l.

Seed: Avalon, sown at 200 kg.

Cultivations, etc.: - Rotary harrowed, seed sown: 6 Nov, 1986.
Clopyralid, bromoxynil and mecoprop applied: 23 Apr, 1987. Growth regulator applied: 6 May. Glyphosate applied: 17 Aug. Combine harvested: 1 Sept. Previous crops: W. wheat 1985, potatoes 1986.

NOTE: Aphids were counted from early June until late July. Plant samples were taken at anthesis for dry weight measurements. Disease assessments were made in late June and late July. Components of yield were measured.

87/R/WW/5

GRAIN TONNES/HECTARE

***** Tables of means *****

N RATE	80	120	160	Mean
APHICIDE				
NONE	6.62	6.96	7.21	6.93
PIRIMICA	6.73	7.27	7.47	7.16
Mean	6.68	7.12	7.34	7.04
FUNGCIDE	NONE	31+39+59	Mean	
APHICIDE				
NONE	6.40	7.46	6.93	
PIRIMICA	6.66	7.65	7.16	
Mean	6.53	7.56	7.04	
FUNGCIDE	NONE	31+39+59	Mean	
N RATE				
80	6.39	6.96	6.68	
120	6.57	7.66	7.12	
160	6.64	8.04	7.34	
Mean	6.53	7.56	7.04	
N RATE	80	120	160	
APHICIDE FUNGCIDE	NONE 31+39+59	NONE 31+39+59	NONE 31+39+59	
NONE	6.25	7.00	6.50	7.42
PIRIMICA	6.54	6.92	6.65	7.90
			6.46	7.95
			6.81	8.13

*** Standard errors of differences of means ***

Table	APHICIDE	N RATE	FUNGCIDE	APHICIDE
				N RATE
s.e.d.	0.124	0.152	0.124	0.215
Table	APHICIDE	N RATE	APHICIDE	
	FUNGCIDE	FUNGCIDE	N RATE	
s.e.d.	0.176	0.215	FUNGCIDE	0.304

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
BLOCK.WP	22	0.373	5.3
GRAIN MEAN DM%	83.9		
PLOT AREA HARVESTED	0.00258		