ROTHAMSTED RESEARCH

Yields of the Field Experiments 1989

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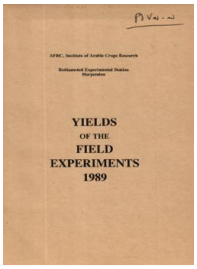

89/R/WW/1 and 89/W/WW/1 Varieties - W. Wheat

Rothamsted Research

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89/R/WW/1 and 89/W/WW/1

WINTER WHEAT

VARIETIES

Object: To study a selection of newer varieties of w. wheat on land in rotation (pathogen free) and after wheat (pathogen infected) - Rothamsted Pastures (pathogen free RH) and Summerdells I (pathogen infected RD), Woburn Lansome II (pathogen free WH).

Sponsor: R. Moffitt.

Design: Two blocks of 2 whole plots split into 7 (RH,RD), 4 blocks of 8 plots (WH).

Whole plot dimensions: 27.0 x 12.0 (RH,RD)
48.0 x 12.0 (WH)

Treatments: All combinations of:-

Whole plots

1. **INSCTCDE** Insecticide (R only):

NONE	None
PIRIMICA	Pirimicarb at 0.14 kg in 200 l on 20 June, 1989

Sub plots (R), whole plots (WH):

2. **VARIETY** Varieties:

ALEXAND	Alexandria (WH only)
APOLLO	Apollo
APOSTLE	Apostle
AVALON	Avalon
HORNET	Hornet
MERCIA	Mercia
PASTICHE	Pastiche
RENDEZVO	Rendezvous

Basal applications:

Pastures (RH): Manure: 'Nitram' at 360 kg. Weedkillers: Fluroxypyr at 0.20 kg with bromoxynil at 0.27 kg and ioxynil at 0.27 kg in 200 l. Fungicides: Propiconazole at 0.12 kg with chlorothalonil at 1.0 kg in 200 l.

Summerdells I (RD): Manures: (0:18:36) at 920 kg. 'Nitram' at 580 kg. Weedkillers: Glyphosate at 0.27 kg in 200 l. Isoproturon at 2.5 kg in 200 l. Fungicides: Propiconazole at 0.12 kg with chlorothalonil at 1.0 kg in 200 l.

Lansome II (WH): Manure: 'Nitram' at 460 kg. Weedkillers: Bromoxynil at 0.34 kg and clopyralid at 0.07 kg with mecoprop at 2.5 kg in 220 l. Fungicides: Propiconazole at 0.12 kg with chlorothalonil at 1.0 kg in 220 l.

Seed: Varieties sown at 180 kg (R).
Varieties sown at 160 kg (W).

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89/R/WW/1 and 89/W/WW/1

Cultivations, etc.:-

Pastures (RH): Heavy spring-tine cultivated twice: 1 Nov, 1988. Rotary harrowed, seed sown and harrowed: 2 Nov. N applied: 19 Apr, 1989. Weedkillers applied: 2 May. Fungicides applied: 16 June. Combine harvested: 7 Aug. Previous crops: S. beans 1987, potatoes 1988.

Summerdells I (RD): Straw burnt: 21 Sept, 1988. Rotary cultivated: 22 Sept. PK applied: 2 Oct. Glyphosate applied: 22 Oct. Heavy spring-tine cultivated: 30 Oct. Rotary harrowed, seed sown, harrowed: 2 Nov. Isoproturon applied: 16 Nov. N applied: 16 Apr, 1989. Fungicides applied: 16 June. Combine harvested: 8 Aug. Previous crops: W. wheat 1987, s. wheat 1988.

Lansome II (WH): Heavy spring-tine cultivated: 3 Nov, 1988. Spike-harrowed with crumbler attached, seed sown: 4 Nov. N applied: 29 Apr, 1989. Weedkillers applied: 2 May. Fungicides applied: 12 June. Combine harvested: 8 Aug. Previous crops: S. barley 1987, potatoes 1988.

89/R/WW/1 PASTURES (RH)

GRAIN TONNES/HECTARE

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

INSCTCDE / **VARIETY**	NONE	PIRIMICA	Mean
APOLLO	8.90	8.70	8.80
APOSTLE	8.85	8.65	8.75
AVALON	8.39	8.68	8.54
HORNET	9.11	8.84	8.97
MERCIA	8.72	8.66	8.69
PASTICHE	7.91	8.09	8.00
RENDEZVO	8.72	8.54	8.63
Mean	8.66	8.60	8.63

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

VARIETY	**INSCTCDE*** **VARIETY**
0.208	0.295

* Within the same level of **INSCTCDE** only

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

Stratum	d.f.	s.e.	cv%
WP.SP	12	0.295	3.4

GRAIN MEAN DM% 89.8

SUB PLOT AREA HARVESTED 0.00245

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89/R/WW/1 SUMMERDELLS (RD)

GRAIN TONNES/HECTARE

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

INSCTCDE / VARIETY	NONE	PIRIMICA	Mean
APOLLO	8.47	8.18	8.32
APOSTLE	7.87	7.22	7.54
AVALON	7.15	6.73	6.94
HORNET	6.95	7.36	7.16
MERCIA	7.93	7.92	7.93
PASTICHE	6.86	6.29	6.57
RENDEZVO	7.49	6.37	6.93
Mean	7.53	7.15	7.34

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

VARIETY	VARIETY* INSCTCDE
0.351	0.496

* Within the same level of **INSCTCDE** only

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

Stratum	d.f.	s.e.	cv%
WP.SP	12	0.496	6.8

GRAIN MEAN DM% 89.7

SUB PLOT AREA HARVESTED 0.00245

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89/W/WW/1 LANSOME (W)

GRAIN TONNES/HECTARE

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

VARIETY	
ALEXAND	3.96
APOLLO	6.10
APOSTLE	5.57
AVALON	5.45
HORNET	4.93
MERCIA	5.89
PASTICHE	4.92
RENDEZVO	5.79
Mean	5.33

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

VARIETY
0.446

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

Stratum	d.f.	s.e.	cv%
WP.SP	21	0.631	11.8

GRAIN MEAN DM% 89.7

SUB PLOT AREA HARVESTED 0.00330

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