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Yields of the Field Experiments 1987

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87/R/B/6 and 87/W/B/6 Varieties and N - S. Barley

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87/R/B/6 and 87/W/B/6

SPRING BARLEY

VARIETIES AND N

Object: To study the yields of some of the newer varieties of s. barley at two rates of nitrogen - Rothamsted (R), Highfield IV and Woburn (W), Lansome II.

Sponsor: R. Moffitt.

Design: 3 randomised blocks of 2 plots split into 10.

Sub-plot dimensions: (R) 3.0 x 10.0. (W) 4.0 x 9.0.

Treatments: All combinations of:-

Whole plots

| | | |
|------|--------|---|
| 1. N | | Nitrogen fertilizer: |
| | (R) | (W) |
| | 125 | 80 |
| | 125+46 | 120 |
| | | 125 kg N on 20 Mar, 1987 (R), 80 kg N on 5 May (W) |
| | | 125 kg N on 20 Mar plus 46 kg N on 29 Apr (R), 120 kg N on 5 May (W) |

Sub plots

| | |
|------------|------------------------------------|
| 2. VARIETY | Varieties: |
| BLENHEIM | Blenheim |
| CAMEO | Cameo |
| CORNICHE | Corniche |
| DIGGER | Digger |
| DOUBLET | Doublet |
| KLAXON | Klaxon |
| KLAXON B | Klaxon with 'Baytan' seed dressing |
| NATASHA | Natasha |
| REGATTA | Regatta |
| TRIUMPH | Triumph |

NOTE: Nitrogen fertilizer was applied as 'Nitram'.

Basal applications:

Highfield IV (R): Weedkillers: Clopyralid at 0.07 kg, bromoxynil at 0.34 kg with mecoprop at 2.5 kg in 200 l. Fungicide: Tridemorph at 0.52 kg in 200 l.

Lansome II (W): Fungicides: Tridemorph at 0.19 kg with propiconazole at 0.12 kg in 200 l. Desiccant: Diquat at 0.60 kg ion applied with a wetting agent ('Agral' at 0.10 l) in 200 l.

Seed: Highfield IV (R), and Lansome II (W): Sown at 160 kg.

Cultivations, etc.:-

Highfield IV (R): Ploughed: 5 Nov, 1986. Spring-tine cultivated, rotary harrowed, seed sown, harrowed: 20 Mar, 1987. Rolled: 21 Mar. Weedkillers applied: 6 May. Fungicide applied: 23 June. Combine harvested: 20 Aug. Previous crops: Potatoes 1985, w. wheat 1986.

87/R/B/6 and 87/W/B/6

Cultivations, etc.:-

Lansome II (W): Deep-tine cultivated: 30 Jan, 1987. Spike harrowed with crumbler attached, seed sown: 30 Mar. Fungicides applied: 3 July. Desiccant applied: 21 Aug. Combine harvested: 10 Sept. Previous crops: W. oats 1985, potatoes 1986.

87/R/B/6 HIGHFIELD IV (R)

GRAIN TONNES/HECTARE

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

| N | 125 | 125+46 | Mean |
|-----------|------|--------|------|
| VARIETY | | | |
| BLLENHEIM | 6.20 | 6.59 | 6.39 |
| CAMEO | 6.99 | 7.63 | 7.31 |
| CORNICHE | 6.61 | 6.62 | 6.62 |
| DIGGER | 5.99 | 7.96 | 6.97 |
| DOUBLET | 6.81 | 7.52 | 7.17 |
| KLAXON | 6.24 | 6.55 | 6.39 |
| KLAXON B | 6.10 | 7.19 | 6.64 |
| NATASHA | 6.67 | 6.85 | 6.76 |
| REGATTA | 7.55 | 7.58 | 7.57 |
| TRIUMPH | 5.67 | 6.67 | 6.17 |
| Mean | 6.48 | 7.12 | 6.80 |

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

| Table | VARIETY | N* |
|--------|---------|-------|
| s.e.d. | 0.270 | 0.382 |

* Within the same level of N only

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

| Stratum | d.f. | s.e. | cv% |
|-------------|------|-------|-----|
| BLOCK.WP.SP | 36 | 0.467 | 6.9 |

GRAIN MEAN DM% 86.7

SUB PLOT AREA HARVESTED 0.00204

87/W/B/6 LANSOME II (W)

GRAIN TONNES/HECTARE

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

| | N | 80 | 120 | Mean |
|----------|---|------|------|------|
| VARIETY | | | | |
| BLENHEIM | | 4.92 | 4.78 | 4.85 |
| CAMEO | | 5.00 | 4.22 | 4.61 |
| CORNICHE | | 5.17 | 4.63 | 4.90 |
| DIGGER | | 5.94 | 6.68 | 6.31 |
| DOUBLET | | 4.85 | 5.23 | 5.04 |
| KLAXON | | 5.39 | 4.44 | 4.91 |
| KLAXON B | | 5.02 | 4.86 | 4.94 |
| NATASHA | | 4.57 | 4.22 | 4.39 |
| REGATTA | | 5.43 | 5.17 | 5.30 |
| TRIUMPH | | 5.26 | 4.03 | 4.64 |
| Mean | | 5.15 | 4.83 | 4.99 |

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

| Table | VARIETY | N* |
|--------|---------|-------|
| s.e.d. | 0.236 | 0.334 |

* Within the same level of N only

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

| Stratum | d.f. | s.e. | cv% |
|-------------------------|---------|-------|-----|
| BLOCK.WP.SP | 36 | 0.409 | 8.2 |
| GRAIN MEAN DM% | 85.5 | | |
| SUB PLOT AREA HARVESTED | 0.00247 | | |