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# Yields of the Field Experiments 1980

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## 80/R/B/3 Winter Barley Dates of Sowing, N and Growth Regulator

### Rothamsted Research

Rothamsted Research (1981) *80/R/B/3 Winter Barley Dates of Sowing, N and Growth Regulator* ;  
Yields Of The Field Experiments 1980, pp 261 - 265 - DOI:

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Basal applications: Manures: (0:14:28) at 360 kg. Weedkillers: Mecoprop, bromoxynil and ioxynil (as 'Brittox' at 3.5 l) in 220 l. Fungicides: Tridemorph at 0.53 kg applied twice, with the weedkillers on the first occasion and with benodanil on the second. Benodanil at 1.1 kg in 200 l applied with a 'wetter' ('Cittowet' at 0.18 l).

Seed: Sonja, sown at 160 kg.

Cultivations, etc.: - PK applied, heavy spring-tine cultivated: 17 Sept, 1979. Spring-tine cultivated: 18 Sept. Weedkillers and tridemorph applied: 15 Apr, 1980. Tridemorph and benodanil applied: 15 May. Combine harvested: 30 July. Previous crops: S. beans 1978, potatoes 1979.

NOTE: Nitrate in the crop was measured three times during the season, and nitrate in the soil twice. Crop height and ear numbers were measured in June.

GRAIN TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

|         |      |      |      |      |
|---------|------|------|------|------|
| EN RATE | 0    | 35   | MEAN |      |
| SOWDATE |      |      |      |      |
| 18 SEP  | 8.29 | 8.36 | 8.33 |      |
| 16 OCT  | 8.11 | 8.14 | 8.12 |      |
| MEAN    | 8.20 | 8.25 | 8.22 |      |
| SN RATE | 75   | 110  | MEAN |      |
| SOWDATE |      |      |      |      |
| 18 SEP  | 8.16 | 8.49 | 8.33 |      |
| 16 OCT  | 7.97 | 8.28 | 8.12 |      |
| MEAN    | 8.06 | 8.39 | 8.22 |      |
| SN RATE | 75   | 110  | MEAN |      |
| EN RATE |      |      |      |      |
| 0       | 8.05 | 8.34 | 8.20 |      |
| 35      | 8.07 | 8.43 | 8.25 |      |
| MEAN    | 8.06 | 8.39 | 8.22 |      |
| SN TIME | E    | L    | EL   | MEAN |
| SOWDATE |      |      |      |      |
| 18 SEP  | 8.12 | 8.66 | 8.20 | 8.33 |
| 16 OCT  | 7.89 | 8.23 | 8.24 | 8.12 |
| MEAN    | 8.01 | 8.45 | 8.22 | 8.22 |
| SN TIME | E    | L    | EL   | MEAN |
| EN RATE |      |      |      |      |
| 0       | 8.07 | 8.30 | 8.22 | 8.20 |
| 35      | 7.94 | 8.59 | 8.22 | 8.25 |
| MEAN    | 8.01 | 8.45 | 8.22 | 8.22 |

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GRAIN TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

|          |      |         |      |      |      |      |
|----------|------|---------|------|------|------|------|
| SN TIME  | E    | L       | EL   | MEAN |      |      |
| SN RATE  |      |         |      |      |      |      |
| 75       | 7.91 | 8.23    | 8.06 | 8.06 |      |      |
| 110      | 8.11 | 8.66    | 8.39 | 8.39 |      |      |
| MEAN     | 8.01 | 8.45    | 8.22 | 8.22 |      |      |
| GRTH REG | 0    | MEP+ETH | MEAN |      |      |      |
| SOWDATE  |      |         |      |      |      |      |
| 18 SEP   | 7.94 | 8.72    | 8.33 |      |      |      |
| 16 OCT   | 7.70 | 8.55    | 8.12 |      |      |      |
| MEAN     | 7.82 | 8.63    | 8.22 |      |      |      |
| GRTH REG | 0    | MEP+ETH | MEAN |      |      |      |
| EN RATE  |      |         |      |      |      |      |
| 0        | 7.91 | 8.49    | 8.20 |      |      |      |
| 35       | 7.73 | 8.77    | 8.25 |      |      |      |
| MEAN     | 7.82 | 8.63    | 8.22 |      |      |      |
| GRTH REG | 0    | MEP+ETH | MEAN |      |      |      |
| SN RATE  |      |         |      |      |      |      |
| 75       | 7.69 | 8.44    | 8.06 |      |      |      |
| 110      | 7.94 | 8.83    | 8.39 |      |      |      |
| MEAN     | 7.82 | 8.63    | 8.22 |      |      |      |
| GRTH REG | 0    | MEP+ETH | MEAN |      |      |      |
| SN TIME  |      |         |      |      |      |      |
| E        | 7.65 | 8.36    | 8.01 |      |      |      |
| L        | 7.90 | 8.99    | 8.45 |      |      |      |
| EL       | 7.90 | 8.55    | 8.22 |      |      |      |
| MEAN     | 7.82 | 8.63    | 8.22 |      |      |      |
| EN RATE  | 0    |         | 35   |      |      |      |
| SN RATE  | 75   | 110     | 75   | 110  |      |      |
| SOWDATE  |      |         |      |      |      |      |
| 18 SEP   | 8.17 | 8.41    | 8.15 | 8.57 |      |      |
| 16 OCT   | 7.94 | 8.27    | 7.99 | 8.28 |      |      |
| EN RATE  | 0    |         |      | 35   |      |      |
| SN TIME  | E    | L       | EL   | E    | L    | EL   |
| SOWDATE  |      |         |      |      |      |      |
| 18 SEP   | 8.14 | 8.63    | 8.10 | 8.10 | 8.69 | 8.30 |
| 16 OCT   | 8.01 | 7.97    | 8.35 | 7.78 | 8.49 | 8.14 |

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GRAIN TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

|          |      |         |      |         |      |         |
|----------|------|---------|------|---------|------|---------|
| SN RATE  | 75   |         |      | 110     |      |         |
| SN TIME  | E    | L       | EL   | E       | L    | EL      |
| SOWDATE  |      |         |      |         |      |         |
| 18 SEP   | 8.05 | 8.34    | 8.09 | 8.19    | 8.98 | 8.31    |
| 16 OCT   | 7.77 | 8.11    | 8.03 | 8.02    | 8.35 | 8.46    |
| SN RATE  | 75   |         |      | 110     |      |         |
| SN TIME  | E    | L       | EL   | E       | L    | EL      |
| EN RATE  |      |         |      |         |      |         |
| 0        | 7.93 | 8.07    | 8.16 | 8.22    | 8.53 | 8.29    |
| 35       | 7.89 | 8.38    | 7.95 | 7.99    | 8.80 | 8.48    |
| EN RATE  | 0    |         | 35   |         |      |         |
| GRTH REG | 0    | MEP+ETH | 0    | MEP+ETH |      |         |
| SOWDATE  |      |         |      |         |      |         |
| 18 SEP   | 7.92 | 8.66    | 7.95 | 8.77    |      |         |
| 16 OCT   | 7.89 | 8.33    | 7.50 | 8.77    |      |         |
| SN RATE  | 75   |         |      | 110     |      |         |
| GRTH REG | 0    | MEP+ETH | 0    | MEP+ETH |      |         |
| SOWDATE  |      |         |      |         |      |         |
| 18 SEP   | 7.85 | 8.47    | 8.03 | 8.96    |      |         |
| 16 OCT   | 7.53 | 8.40    | 7.86 | 8.69    |      |         |
| SN RATE  | 75   |         |      | 110     |      |         |
| GRTH REG | 0    | MEP+ETH | 0    | MEP+ETH |      |         |
| EN RATE  |      |         |      |         |      |         |
| 0        | 7.94 | 8.17    | 7.88 | 8.81    |      |         |
| 35       | 7.45 | 8.70    | 8.01 | 8.85    |      |         |
| SN TIME  | E    |         | L    |         | EL   |         |
| GRTH REG | 0    | MEP+ETH | 0    | MEP+ETH | 0    | MEP+ETH |
| SOWDATE  |      |         |      |         |      |         |
| 18 SEP   | 7.73 | 8.51    | 8.15 | 9.17    | 7.93 | 8.47    |
| 16 OCT   | 7.57 | 8.22    | 7.66 | 8.80    | 7.86 | 8.62    |
| SN TIME  | E    |         | L    |         | EL   |         |
| GRTH REG | 0    | MEP+ETH | 0    | MEP+ETH | 0    | MEP+ETH |
| EN RATE  |      |         |      |         |      |         |
| 0        | 7.71 | 8.44    | 7.92 | 8.67    | 8.09 | 8.36    |
| 35       | 7.59 | 8.29    | 7.88 | 9.30    | 7.71 | 8.73    |
| SN TIME  | E    |         | L    |         | EL   |         |
| GRTH REG | 0    | MEP+ETH | 0    | MEP+ETH | 0    | MEP+ETH |
| SN RATE  |      |         |      |         |      |         |
| 75       | 7.69 | 8.12    | 7.74 | 8.72    | 7.64 | 8.47    |
| 110      | 7.61 | 8.60    | 8.07 | 9.26    | 8.15 | 8.62    |

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GRAIN TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

|       |          |          |      |
|-------|----------|----------|------|
| EXTRA | 18 SEP 0 | 16 OCT 0 | MEAN |
|       | 6.88     | 5.81     | 6.35 |

GRAND MEAN 8.15

\*\*\*\*\* STANDARD ERRORS OF DIFFERENCES OF MEANS \*\*\*\*\*

|       |                                |                                |                                |                                |
|-------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| TABLE | SOWDATE                        | EN RATE                        | SN RATE                        | SN TIME                        |
| ----- | -----                          | -----                          | -----                          | -----                          |
| SED   | 0.142                          | 0.142                          | 0.142                          | 0.174                          |
| TABLE | GRTH REG                       | SOWDATE<br>EN RATE             | SOWDATE<br>SN RATE             | EN RATE<br>SN RATE             |
| ----- | -----                          | -----                          | -----                          | -----                          |
| SED   | 0.142                          | 0.201                          | 0.201                          | 0.201                          |
| TABLE | SOWDATE<br>SN TIME             | EN RATE<br>SN TIME             | SN RATE<br>SN TIME             | SOWDATE<br>GRTH REG            |
| ----- | -----                          | -----                          | -----                          | -----                          |
| SED   | 0.247                          | 0.247                          | 0.247                          | 0.201                          |
| TABLE | EN RATE<br>GRTH REG            | SN RATE<br>GRTH REG            | SN TIME<br>GRTH REG            | SOWDATE<br>EN RATE<br>SN RATE  |
| ----- | -----                          | -----                          | -----                          | -----                          |
| SED   | 0.201                          | 0.201                          | 0.247                          | 0.285                          |
| TABLE | SOWDATE<br>EN RATE<br>SN TIME  | SOWDATE<br>SN RATE<br>SN TIME  | EN RATE<br>SN RATE<br>SN TIME  | SOWDATE<br>EN RATE<br>GRTH REG |
| ----- | -----                          | -----                          | -----                          | -----                          |
| SED   | 0.349                          | 0.349                          | 0.349                          | 0.285                          |
| TABLE | SOWDATE<br>SN RATE<br>GRTH REG | EN RATE<br>SN RATE<br>GRTH REG | SOWDATE<br>SN TIME<br>GRTH REG | EN RATE<br>SN TIME<br>GRTH REG |
| ----- | -----                          | -----                          | -----                          | -----                          |
| SED   | 0.285                          | 0.285                          | 0.349                          | 0.349                          |
| TABLE | SN RATE<br>SN TIME<br>GRTH REG |                                |                                |                                |
| ----- | -----                          |                                |                                |                                |
| SED   | 0.349                          |                                |                                |                                |

\*\*\*\*\* STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION \*\*\*\*\*

|          |    |       |     |
|----------|----|-------|-----|
| STRATUM  | DF | SE    | CV% |
| BLOCK.WP | 10 | 0.493 | 6.0 |

GRAIN MEAN DM% 81.8

PLOT AREA HARVESTED 0.00349