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RESEARCH

Numerical Results of the Field Experiments 1970

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70/R/BN/7 Barnfield - Beans, Spring Wheat, Barley

Rothamsted Research

Rothamsted Research (1971) *70/R/BN/7 Barnfield - Beans, Spring Wheat, Barley* ; Numerical Results Of The Field Experiments 1970, pp 35 - 40 - DOI: <https://doi.org/10.23637/ERADOC-1-59>

BARNFIELD

(70/R/BN/7)

Third year of new scheme, 1970. Beans, spring wheat and barley.

For history, treatments, etc. see 'Details' 1967 and 'Results' 68/A/5 and 69/R/BN/7.

Varieties in 1970: Spring wheat: Kolibri, barley: Julia, spring beans: Maris Bead.

Continuous spring beans: The half plots on Section 1 which have now received simazine in each of the 3 years 1967 - 69 were divided into 2 for a test of continued simazine application v residual effects of previous application.

Plot areas:

Wheat and barley (quarter plot): 0.0362 (Strip 1: 0.0238).

Area harvested: 0.0193.

Beans, Section 1 (half plot): 0.0723. (Strips 1 and 8: 0.0475).

Area harvested: 0.0217.

Section 2 (half plot): 0.0241.

(Strips 1 and 8: 0.0158). Area harvested: 0.0217.

Standard applications: Spring beans: Weedkiller: Paraquat at 0.5 lb ion in 20 gals to strips 1 and 2 only. Insecticide: Demeton-s-methyl at 3.5 oz in 40 gals.

Cultivations, etc.: FYM applied: 10 Nov, 1969. P,K,Na and Mg applied: 10 - 27 Nov. All plots ploughed: 28 Nov.

Spring beans: Paraquat applied: 8 Oct, 1969. Seed drilled at

200 lb: 20 Apr, 1970. Simazine applied to half plots at

1 lb in 20 gals: 24 Apr. Insecticide applied: 17 June.

Combine harvested: 4 Sept.

Spring wheat: Seed drilled at 170 lb: 20 Apr, 1970. N applied:

24 Apr. Combine harvested: 29 Aug.

Barley: Seed drilled at 140 lb: 20 Apr, 1970. N applied:

24 Apr. Combine harvested: 25 Aug.

70/R/BN/7

SUMMARY OF RESULTS

SPRING WHEAT

GRAIN: CWT

| Strip | N | N | A | AC | C |
|-------------------|---|------|------|------|------|
| 1 | 0 | 10.4 | - | - | 23.0 |
| | 1 | - | 21.4 | 30.4 | - |
| | 2 | 15.6 | - | - | 26.3 |
| 2 | 0 | - | 25.0 | 22.8 | - |
| | 1 | 20.3 | - | - | 24.7 |
| | 2 | - | 21.3 | 27.8 | - |
| 4 | 0 | 10.6 | - | - | 28.2 |
| | 1 | 11.0 | - | - | 12.4 |
| | 2 | - | 19.8 | 24.2 | - |
| 5 | 0 | 16.7 | - | - | 25.7 |
| | 1 | - | 29.4 | 31.4 | - |
| | 2 | 8.6 | - | - | 12.2 |
| 6 | 0 | - | 22.9 | 26.8 | - |
| | 1 | 16.4 | - | - | 21.2 |
| | 2 | - | 25.7 | 32.2 | - |
| 7 | 0 | - | 10.1 | 12.6 | - |
| | 1 | 18.3 | - | - | 22.2 |
| | 2 | - | 25.1 | 31.4 | - |
| 8 | 0 | 17.9 | - | - | 31.8 |
| | 1 | - | 10.5 | 14.3 | - |
| | 2 | 17.7 | - | - | 24.8 |
| 9 | 0 | - | 26.8 | 29.6 | - |
| | 1 | 11.9 | - | - | 23.8 |
| | 2 | - | 22.5 | 12.4 | - |
| Mean D.M. %: 83.0 | 0 | 17.3 | - | - | 20.0 |
| | 1 | - | 23.6 | 13.7 | - |
| | 2 | 12.3 | - | - | 25.5 |
| | 0 | | 15.0 | | |
| | 1 | | 18.8 | | |
| | 2 | | 20.7 | | |
| | 3 | | 22.4 | | |

Mean D.M. %: 83.0

70/R/BN/7

SPRING WHEAT

STRAW: CWT

| Strip | N | N | A | AC | C |
|-------|---|------|------|------|------|
| 1 | 0 | 19.0 | - | - | 20.9 |
| | 1 | - | 28.8 | 26.7 | - |
| | 2 | 26.6 | - | - | 29.3 |
| 2 | 3 | - | 26.6 | 28.3 | - |
| | 0 | - | 15.3 | 17.3 | - |
| | 1 | 22.6 | - | - | 24.0 |
| 4 | 2 | - | 28.0 | 22.1 | - |
| | 3 | 28.3 | - | - | 32.0 |
| | 0 | 8.9 | - | - | 8.8 |
| 5 | 1 | - | 14.6 | 16.8 | - |
| | 2 | 19.5 | - | - | 21.6 |
| | 3 | - | 22.6 | 22.1 | - |
| 6 | 0 | 7.8 | - | - | 8.4 |
| | 1 | - | 14.2 | 16.7 | - |
| | 2 | 17.2 | - | - | 15.8 |
| 7 | 3 | - | 16.6 | 19.0 | - |
| | 0 | - | 7.7 | 9.2 | - |
| | 1 | 16.1 | - | - | 17.3 |
| 8 | 2 | - | 21.9 | 23.6 | - |
| | 3 | 17.8 | - | - | 27.1 |
| | 0 | - | 6.1 | 9.8 | - |
| 9 | 1 | 12.6 | - | - | 17.8 |
| | 2 | - | 16.7 | 19.1 | - |
| | 3 | 12.1 | - | - | 17.5 |
| 10 | 0 | - | 6.7 | 8.2 | - |
| | 1 | 11.3 | - | - | 12.2 |
| | 2 | - | 13.0 | 14.9 | - |
| 11 | 3 | 13.9 | - | - | 13.7 |
| | 0 | - | 7.7 | - | - |
| | 1 | - | 13.4 | - | - |
| 12 | 2 | - | 16.6 | - | - |
| | 3 | - | 18.3 | - | - |

Mean D.M. %: 71.2

70/R/BN/7

BARLEY

GRAIN: CWT

| Strip | N | N | A | AC | C |
|-------|---|------|------|------|------|
| 1 | 0 | - | 32.6 | 29.7 | - |
| | 1 | 36.6 | - | - | 40.6 |
| | 2 | - | 42.3 | 44.5 | - |
| 2 | 3 | 40.7 | - | - | 44.6 |
| | 0 | 33.7 | - | - | 26.8 |
| | 1 | - | 38.8 | 39.5 | - |
| 4 | 2 | 38.6 | - | - | 44.0 |
| | 3 | - | 43.1 | 44.2 | - |
| | 0 | - | 8.9 | 9.1 | - |
| 5 | 1 | 22.6 | - | - | 22.3 |
| | 2 | - | 28.9 | 30.4 | - |
| | 3 | 32.1 | - | - | 37.3 |
| 6 | 0 | - | 8.7 | 10.1 | - |
| | 1 | 22.4 | - | - | 27.1 |
| | 2 | - | 31.5 | 37.2 | - |
| 7 | 3 | 28.7 | - | - | 39.8 |
| | 0 | 7.6 | - | - | 11.4 |
| | 1 | - | 23.7 | 27.4 | - |
| 8 | 2 | 26.9 | - | - | 33.3 |
| | 3 | - | 35.5 | 39.7 | - |
| | 0 | 7.4 | - | - | 11.6 |
| 9 | 1 | - | 22.9 | 26.4 | - |
| | 2 | 23.1 | - | - | 32.5 |
| | 3 | - | 36.9 | 39.0 | - |
| 10 | 0 | 6.5 | - | - | 15.4 |
| | 1 | - | 21.2 | 28.4 | - |
| | 2 | 25.0 | - | - | 33.1 |
| 11 | 3 | - | 30.0 | 33.9 | - |
| | 0 | - | - | - | - |

Mean D.M. %: 82.7

70/R/BN/7

BARLEY

STRAW: CWT

| Strip | N | N | A | AC | C |
|-------|---|------|------|------|------|
| 1 | 0 | - | 18.0 | 17.7 | - |
| | 1 | 19.1 | - | - | 22.3 |
| | 2 | - | 23.3 | 25.1 | - |
| 2 | 3 | 25.6 | - | - | 24.4 |
| | 0 | 18.6 | - | - | 15.5 |
| | 1 | - | 23.7 | 22.4 | - |
| 4 | 2 | 22.4 | - | - | 23.1 |
| | 3 | - | 25.3 | 21.8 | - |
| | 0 | - | 3.2 | 3.4 | - |
| 5 | 1 | 11.9 | - | - | 12.1 |
| | 2 | - | 13.0 | 17.2 | - |
| | 3 | 18.2 | - | - | 20.0 |
| 6 | 0 | - | 2.7 | 4.4 | - |
| | 1 | 11.3 | - | - | 13.6 |
| | 2 | - | 14.3 | 18.5 | - |
| 7 | 3 | 15.4 | - | - | 18.6 |
| | 0 | 2.5 | - | - | 5.0 |
| | 1 | - | 12.2 | 14.6 | - |
| 8 | 2 | 15.1 | - | - | 18.3 |
| | 3 | - | 17.9 | 21.8 | - |
| | 0 | 3.2 | - | - | 4.8 |
| 9 | 1 | - | 11.3 | 12.9 | - |
| | 2 | 11.7 | - | - | 16.7 |
| | 3 | - | 18.4 | 18.3 | - |
| 10 | 0 | 1.7 | - | - | 6.9 |
| | 1 | - | 10.3 | 12.8 | - |
| | 2 | 11.1 | - | - | 16.9 |
| | 3 | - | 14.2 | 13.8 | - |

Mean D.M. %: 78.0

70/R/BV/7

BEANS

SIMAZINE

| Strip | 1967* | 1967-69 | 1967-70 | Mean |
|------------|-------|---------|---------|------|
| GRAIN: CWT | | | | |
| 1 | 16.4 | 12.6 | 12.6 | 14.5 |
| 2 | 13.0 | 16.6 | 13.3 | 14.0 |
| 4 | 8.2 | 7.5 | 6.4 | 7.6 |
| 5 | 11.6 | 9.0 | 7.2 | 9.8 |
| 6 | 7.2 | 8.4 | 6.4 | 7.3 |
| 7 | 8.6 | 5.3 | 4.3 | 6.7 |
| 8 | 6.5 | 1.6 | 1.7 | 4.1 |
| Mean | 10.2 | 8.7 | 7.4 | 9.1 |
| STRAW: CWT | | | | |
| 1 | 7.3 | 6.6 | 8.2 | 7.4 |
| 2 | 12.7 | 10.7 | 5.8 | 10.5 |
| 4 | 3.4 | 3.1 | 2.5 | 3.1 |
| 5 | 3.4 | 2.6 | 1.8 | 2.8 |
| 6 | 3.0 | 3.5 | 2.7 | 3.1 |
| 7 | 3.4 | 2.2 | 1.8 | 2.7 |
| 8 | 2.6 | 1.1 | 0.6 | 1.7 |
| Mean | 5.1 | 4.2 | 3.4 | 4.4 |

Mean D.M. %: Grain: 79.2
 Straw: 66.5

* Duplicated treatment