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Yields of the Field Experiments 1971



Full Table of Content

71/S/CS/1 Row Spacing and Seed Rates After Intensive Wheat - Wheat

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71/S/CS/1

ROW SPACING AND SEED RATES AFTER INTENSIVE WHEAT

- Object: To study the effects of seed rate and row spacing on the yields of winter wheat. The effects of different periods of pre-cropping with winter wheat are also studied Saxmundham, Oldershaw's and Garner's plots.
- The sixth year on this site, first year of row spacing and seed rate treatments, winter wheat.
- For previous years see 66/c/30(t), 67/c/23(t), 68/c/39 and 69-70/S/cS/1.
- Design: A single replicate of 4 x 2 x 4 in 4 blocks of 4 plots each split lengthways into 2, plus one additional plot (not split into 2) per block. Additionally, all the plots are split breadthways into 3.
- Whole plot dimensions: 5.49 x 40.2. Sub plot area harvested: 0.00273.

Treatments:-

Additional plots: One immediately previous continuous winter wheat crop (1), row spacing 18.9 cm (8.25 inches) and seed rate 212 kg (S), and N to sub plots as shown below,

and all combinations of:-

Whole plots:

- 1. Cropping history: 2, 3, 4 and 5 years of immediately previous continuous winter wheat crops 1966-1970 (2, 3, 4, 5).
- Half plots:
 2. Row spacing: 15.2 cm (6 inches) (C), 30.5 cm (12 inches)
- (W). 3. Seed rates: 70.6 (R1), 141 (R2), 212 (R3), 283 (R4) kg.
- One third plots: 4. N rates: 50.2 (N1), 100.4 (N2), 150.6 (N3) kg N as 'Nitro-Chalk'.
- Basal applications: 1255 kg (0:20:20) applied to stubble in autumn before ploughing. Weedkiller: Metoxuron ('Dosanex' at 5.6 kg in 449 1).
- Cultivations, etc.: Basal PK applied and ploughed in: 14 Sept, 1970. Seed drilled and basal NPK applied: 5 Oct. Weedkiller applied: 15 Apr, 1971. Test N applied: 21 Apr. Combine harvested: 25 Aug. Variety: Cappelle.

71/S/CS/1

NOTE: Green crop samples for estimates of total weight, grain straw ratios and leaf areas were taken.

Standard errors per sub plot.
Grain, tonnes/hectare: 0.337 or 5.9% (6 d.f.)

SUMMARY OF RESULTS

GRAIN: TONNES/HECTARE

| | R1 | R2 | R3 | R4 | NI | N2 | N3 | Mean | |
|---------------|--------------|-----------|--------------|----------------------|--------------------|------------------------------|--------------|--------------|----|
| | (±0.106) | | | | (±0.084)* (±0.053) | | | | |
| C W | 4.67 5.75 | 6.11 5.79 | 6.20 5.71 | 5.87 5.35 | 5.09 | 5.99 5.93 | 6.06 6.05 | 5.71 5.65 | |
| | | | | (±0.119)* (±0.075) | | | | | |
| | | | | R1 R2 R3 R4 | 5.25 5.18 | 5.47 6.19 6.29 5.90 | 6.40 | 5.95 5.96 | 34 |
| Mean (±0.060) | | | | | 5.02 | 5.96 | 6.06 | 5.68 | |

S 5.92 General mean: 5.73

Mean D.M. %: 89.5

^{*} For use in horizontal and interaction comparisons only