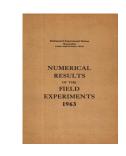
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# Yields of the Field Experiments 1963



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## 63/R/AQ/C/10 Cereal Disease Reference Plots - Wheat

#### **Rothamsted Research**

Rothamsted Research (1964) 63/R/AQ/C/10 Cereal Disease Reference Plots - Wheat; Yields Of The Field Experiments 1963, pp 153 - 154 - DOI: https://doi.org/10.23637/ERADOC-1-183

63/c/10.1

### CEREAL DISEASE REFERENCE PLOTS

(AQ)

The effect of crop sequences on the incidence of cereal diseases -Pennell's Piece 1963, the first year.

Crops in 1963: Winter wheat, spring wheat, beans and cats.

Design: 4 randomised blocks of 4 plots each, 2 blocks for winter and 2 for spring wheat. In addition 1 plot per block was sown with oats and 1 with beans.

Area of each plot: 0.0180 acres. Area harvested: 0.0119 acres.

Treatments: Crop sequences: -

|   | 1963 | 1964 | 1965 | 1966 | 1967 |
|---|------|------|------|------|------|
| 1 | W    | W    | W    | Be   | 0    |
| 2 | W    | W    | Be   | 0    | W    |
| 3 | W    | Be   | 0    | W    | W    |
| 4 | Be   | 0    | W    | W    | W    |
| 5 | 0    | W    | W    | W    | Be   |
| 6 | W    | W    | W    | W    | W    |

W = Winter wheat (plots 1 - 12) and Spring wheat (plots 13 - 24), O = Oats, Be = Spring beans.

Basal dressings (cwt per acre):

N as 'Nitro-Chalk': - 1.0 N to winter wheat as spring top dressing. 0.6 N to spring wheat in seedbed.

0.4 N to cats in seedbed.

None to spring beans. PK as compound fertiliser (14% P205, 28% K20):-

0.5 P205, 1.0 K20 to spring beans placement drilled.
0.3 P205, 0.6 K20 to all other crops combine drilled.

Cultivations, etc.: Ploughed: Oct 18 - 26, 1962. Winter wheat: -Seed drilled at 2.5 bushels per acre: Oct 31, 1962. 'Nitro-Chalk' applied: Mar 13, 1963. Sprayed with mecoprop/2,4-D at 7 pints in 40 gallons per acre: May 16. Combine harvested: Sept 10. Cappelle.

63/c/10.2

Spring wheat: Seed drilled at 3 bushels per acre: Apr 11, 1963.

'Nitro-Chalk' applied: Apr 18. Sprayed with methoxychlorobenzoic acid/MCPA (MBA/MCPA) at 4 pints in 40 gallons per acre: June 6.

Combine harvested: Sept 12. Variety: Jufy I.

Oats: Seed drilled at 4 bushels per acre: Apr 9, 1963. 'Nitro-Chalk' applied: Apr 18. Sprayed with methoxychlorobenzoic acid/MCPA (MBA/MCPA) at 4 pints in 40 gallons per acre: June 6. Combine harvested: Sept 9. Variety: Condor.

Spring beans: Seed drilled at 200 lb per acre: Apr 9, 1963. Sprayed with demeton-methyl at 6 fluid oz in 50 gallons per acre: June 14. Combine harvested: Oct 3. Variety: Tick 30B.

Previous crops: Sugar beet 1961, spring wheat 1962.

Note: (1) Yields were only taken for winter and spring wheat.

(2) Estimates of the incidence of take-all (Ophiobulus graminis),

eyespot (Cercosporella herpotrichoides) and sharp eyespot

(Corticium solani) were made on 4 occasions for winter and 2

for spring wheat.

Standard errors per plot. Grain (at 85% dry matter): Winter wheat: 7.72 cwt per acre or 24.2% (6 d.f.) Spring wheat: 2.80 cwt per acre or 8.7% (6 d.f.)

#### Summary of Results

| Grain (at 85% dry matter): | cwt per acre |  |
|----------------------------|--------------|--|
| Winter wheat               | Spring wheat |  |
| 31.9                       | 32.3         |  |
| (±2.73)                    | (±0.99)      |  |

Mean dry matter % as harvested: Winter wheat 78.6 Spring wheat 73.1