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## Yields of the Field Experiments 1964

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### **64/R/AY/C/5 and 64/W/WBC/C/5 Methods of Application of Fertiliser 1963-64 - Potatoes**

#### **Rothamsted Research**

Rothamsted Research (1965) *64/R/AY/C/5 and 64/W/WBC/C/5 Methods of Application of Fertiliser 1963-64 - Potatoes* ; Yields Of The Field Experiments 1964, pp 153 - 155 - **DOI:**

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64/C/5.1

METHODS OF APPLICATION OF FERTILISER 1964 - 65

(AY and WBC)

Methods of application of fertiliser - Rothamsted (R) Whittlocks and Woburn (W) Broad Mead II, 1964 the first year - potatoes.

Design (each field): 3 randomised blocks of 12 plots each.

Area of each plot: 0.0212. Area harvested: 0.0133.

Treatments: None (L0) (3 plots per block) and all combinations of:-

1. Levels of 13:13:20 to supply (cwt):

| N    | P2O5 | K2O       |
|------|------|-----------|
| 0.66 | 0.66 | 1.02 (L1) |
| 1.32 | 1.32 | 2.03 (L2) |
| 2.00 | 2.00 | 3.07 (L3) |

2. Methods of application: Broadcast (B), placed (P), broadcast and rotary cultivated in (BR).

NOTE: The experiment is designed to include an additional factor applied to the 1965 wheat crop, viz. PK broadcast on seedbed and 'Nitro-Chalk' as spring dressing to supply:-  
N, P2O5 and K2O at levels as (0), (1), (2) above.

Basal dressing: None.

Cultivations, etc.:

Whittlocks (R). Ploughed: Oct 11, 1963. Fertilisers applied to ploughing: Apr 8, 1964. Rotary cultivated, fertilisers applied, potatoes planted: Apr 15. Earthed up: June 12. Sprayed three times with mancozeb at 1.2 lb in 35 gals: June 30, July 16, July 31. Sprayed with diquat (Reglone at 3 pints in 40 gals): Sept 8. Lifted: Sept 15. Variety: King Edward. Previous crops: Winter and spring wheat 1962, spring wheat 1963.

Broad Mead (W). Ploughed twice: Oct 2, 1963 and Jan 13, 1964. Fertilisers applied to ploughing: Apr 9. Rotary cultivated: Apr 13. Fertilisers applied, potatoes planted: Apr 14. Sprayed with diquat/paraquat (Preaglone Extra at 2 pints in 40 gals): May 12. Sprayed with mancozeb at 1.6 lb in 50 gals: June 25, and again at 1.2 lb in 36 gals: July 14. Sprayed with diquat (Reglone at 3 pints in 40 gals): Sept 2. Lifted: Sept 10. Variety: King Edward. Previous crops: Spring wheat 1962, barley 1963.

Standard errors per plot. Total tubers:

|                    |                          |
|--------------------|--------------------------|
| Whittlocks (R):    | 0.610 or 5.6% (24 d.f.)  |
| Broad Mead II (W): | 1.985 or 17.4% (24 d.f.) |

64/C/5.2

SUMMARY OF RESULTS

WHITTLOCKS (R)

|               | L0   | L1       | L2    | L3    | Mean     |
|---------------|------|----------|-------|-------|----------|
| TOTAL TUBERS  |      |          |       |       |          |
|               |      | (±0.352) |       |       | (±0.203) |
| B             |      | 11.23    | 12.83 | 13.92 | 12.66    |
| P             |      | 10.72    | 13.04 | 13.27 | 12.34    |
| BR            |      | 10.27    | 13.01 | 14.60 | 12.63    |
| Mean (±0.209) | 6.18 | 10.74    | 12.96 | 13.93 | 10.95*   |

% WARE

|      |      |      |      |      |       |
|------|------|------|------|------|-------|
| B    |      | 90.4 | 90.1 | 91.4 | 90.6  |
| P    |      | 86.3 | 91.7 | 91.4 | 89.8  |
| BR   |      | 88.3 | 91.9 | 91.1 | 90.4  |
| Mean | 82.0 | 88.3 | 91.2 | 91.3 | 88.2* |

\* General mean

64/C/5.3

BROAD MEAD II (W)

|               | L0   | L1    | L2    | L3    | Mean   |
|---------------|------|-------|-------|-------|--------|
| TOTAL TUBERS  |      |       |       |       |        |
| (±1.146)      |      |       |       |       |        |
| B             |      | 9.82  | 11.90 | 14.84 | 12.19  |
| P             |      | 12.96 | 15.55 | 14.09 | 14.20  |
| BR            |      | 10.06 | 13.50 | 14.66 | 12.74  |
| Mean (±0.662) | 6.51 | 10.94 | 13.65 | 14.53 | 11.41* |
| % WARE        |      |       |       |       |        |
| B             |      | 84.2  | 85.7  | 80.0  | 83.3   |
| P             |      | 89.1  | 86.0  | 78.3  | 84.5   |
| BR            |      | 88.4  | 88.0  | 85.9  | 87.4   |
| Mean          | 82.4 | 87.2  | 86.6  | 81.4  | 84.4*  |

\* General mean