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## Yields of the Field Experiments 1964

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### 64/W/WCW/B/10 Cultivation-weedkiller Rotation

#### Rothamsted Research

Rothamsted Research (1965) *64/W/WCW/B/10 Cultivation-weedkiller Rotation ; Yields Of The Field Experiments 1964*, pp 131 - 132 - DOI: <https://doi.org/10.23637/ERADOC-1-160>

64/B/10.1

## CULTIVATION - WEEDKILLER ROTATION

(WCW)

A comparison of weed control by various cultivation methods and by a pre-emergence weedkiller - Woburn Great Hill I and II 1964, the fifth year.

For history, rotation etc., see 'Results' 60/B/11, 61/B/11, 62/B/11 and 63/B/11.

Because of potato cyst nematode sugar beet replaces potatoes.

Area of each plot: 0.0482. Area harvested: Sugar beet - roots - 0.0121, tops - 0.0040, barley - 0.0115.

### Treatments:

Sugar beet: Ploughed (P), rotary cultivated (R), rigid-tine cultivated (T). Normal mechanical cultivations after sowing. (Three plots per block for each treatment). No weedkiller applied.

Barley: P, R and T as for sugar beet.

Basal dressing. Sugar beet: 5 cwt agricultural salt, 6 cwt 20:10:10. Barley: 3.5 cwt 16:9:9 combine drilled.

### Cultivations, etc.:

Both crops: T plots rigid-tine cultivated twice, P plots ploughed, R plots rotary cultivated: Dec 2, 1963.

Sugar beet: Salt applied: Feb 4, 1964. T and P plots spring-tine cultivated: Feb 25. Basal NPK compound applied: Apr 6. T and P plots spring-tine cultivated: Apr 9. R plots rotary cultivated second time, all plots harrowed: Apr 10. Seed drilled at 5 lb: Apr 11. Singled: May 28. Lifted: Oct 14. Variety: Klein E.

Barley: All plots harrowed: Feb 14, 1964. Seed drilled at 2.5 bushels: Feb 15. Sprayed with mecoprop/2,4-D (Methoxone Extra at 6 pints in 40 gals): May 12. Combine harvested: Aug 26. Variety: Maris Badger.

### Standard errors per plot.

|             |                 |       |    |       |           |
|-------------|-----------------|-------|----|-------|-----------|
| Sugar beet. | Roots (washed): | 0.978 | or | 7.9%  | (14 d.f.) |
|             | Total sugar:    | 4.39  | or | 8.2%  | (14 d.f.) |
|             | Tops:           | 0.750 | or | 12.2% | (14 d.f.) |
| Barley.     | Grain:          | 4.16  | or | 26.0% | (14 d.f.) |

64/B/10.2

## SUMMARY OF RESULTS

| P           | R               | T     | Mean  |
|-------------|-----------------|-------|-------|
| SUGAR BEET  |                 |       |       |
| ROOTS       |                 |       |       |
|             | ( $\pm 0.399$ ) |       |       |
| 12.27       | 12.46           | 12.20 | 12.31 |
| SUGAR %     |                 |       |       |
| 21.7        | 22.1            | 21.7  | 21.8  |
| TOTAL SUGAR |                 |       |       |
|             | ( $\pm 1.79$ )  |       |       |
| 53.2        | 55.1            | 53.0  | 53.7  |
| TOPS        |                 |       |       |
|             | ( $\pm 0.306$ ) |       |       |
| 6.33        | 6.19            | 5.93  | 6.15  |
| BARLEY      |                 |       |       |
| GRAIN       |                 |       |       |
|             | ( $\pm 1.70$ )  |       |       |
| 16.4        | 14.7            | 16.9  | 16.0  |

Mean D.M. %: 87.6