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65/W/WCW/B/9 Cultivation-weedkiller Rotation

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65/B/9.1

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 1965, the sixth year.

For history, rotation etc., see 'Results' 60/B/11, 61/B/11, 62/B/11, 63/B/11 and 64/B/10.

Area of each plot: 0.0482. Area harvested: Sugar beet - roots - 0.0121, tops - 0.0040, barley - 0.0229.

Nitrogen is now applied to the barley at 0.6 (N1), 0.85 (N2), 1.10 cwt N (N3), 0.6 cwt N being applied as basal fertiliser (20:10:10) combine drilled, the remainder as 'Nitro-Chalk' broadcast in the seedbed.

Basal applications: Manures: as above for barley, as before for sugar beet. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 40 gals) to barley.

Cultivations, etc.:

Sugar beet: R plots rotary cultivated: Sept 29, 1964. T plots rigid-tine cultivated twice: Nov 2. P plots ploughed: Nov 19. Salt applied: Jan 5, 1965. Basal NPK applied, R plots rotary cultivated, T and P plots spring-tine cultivated: Apr 1. All plots harrowed and rolled: Apr 2. Seed drilled at 5 lb: Apr 3. All plots tractor hoed: May 13 and June 4. Singled: May 20. Lifted: Nov 4.

Barley: T plots rigid-tine cultivated, P plots ploughed: Nov 20, 1964. R plots rotary cultivated: Nov 25. 'Nitro-Chalk' applied, all plots spring-tine harrowed, seed drilled at 155 lb: Mar 11, 1965. Sprayed: May 11. Combine harvested: Aug 23.

Standard errors per plot.

Sugar beet.	Roots:	1.768 or 9.1% (14 d.f.)
	Total sugar:	7.05 or 9.8% (14 d.f.)
	Tops:	0.940 or 10.0% (14 d.f.)
Barley.	Grain:	1.40 or 3.4% (8 d.f.)

For erratum to 'Results' 61/B/11 see page 65/B/9.3.

65/B/9.2

SUMMARY OF RESULTS

P	R	T	Mean	
SUGAR BEET				
ROOTS				
	(±0.722)			
19.34	19.70	19.06	19.36	
SUGAR %				
18.7	18.3	18.8	18.6	
TOTAL SUGAR				
	(±2.88)			
72.5	72.0	71.7	72.1	
TOPS				
	(±0.384)			
9.00	9.85	9.50	9.45	
BARLEY				
GRAIN				
	N1	N2	N3	Mean
		(±0.99)		(±0.57)
P	40.5	42.5	44.8	42.6
R	41.1	42.1	44.2	42.5
T	38.7	42.9	40.6	40.8
Mean (±0.57)	40.1	42.5	43.2	41.9
Mean D.M.%: 80.5				

65/B/9.3

Errata to Results 61/B/11.

Page 61/B/11.1

Delete all references to Potatoes after 'area harvested' and substitute:-

Treatments:

Potatoes: All combinations of:-

Cultivations before planting: Ploughed and spring-tine cultivated (P), rotary cultivated (R), rigid-tine and spring-tine cultivated (T).

Treatments after planting: Normal cultivations (M), simazine* applied after planting (X), simazine* applied after early cultivations (Y).

Basal dressing per acre:

Potatoes 10 cwt compound fertiliser, 17% N, 11% P₂O₅, 22% K₂O.

Cultivations, etc.:

Potatoes: All plots ploughed: Dec 12, 1960. P plots re-ploughed, T plots rigid-tine cultivated twice: Feb 24, 1961. P and T plots spring-tine cultivated twice: Mar 16. P and T plots rolled and then spring-tine cultivated twice, R plots rotary cultivated: Mar 23. Basal dressing applied, potatoes machine planted: Mar 24. Simazine applied on rolled bouts to X plots: Mar 31. M and Y plots earthed up: May 2. Y plots earthed up and sprayed with simazine: May 19. X plots grubbed twice+: May 30. M and X+ plots earthed up: June 14. Sprayed with undiluted BCV at 12 gallons per acre: Sept 18. Lifted: Sept 21. Variety: Majestic.

+ Because of failure of X treatment.

Page 61/B/11.2

Standard errors per plot.

Potatoes, total tubers replace values shown by 0.925 tons per acre on 15.6% (8 d.f.)

Errata to 61/B/11.2 continued

65/B/9.4

SUMMARY OF RESULTS

Potatoes Total tubers. Replace tables printed by:

	P	R	T	Mean
TOTAL TUBERS: TONS PER ACRE				
		(±0.654)		(±0.378)
N	6.86	7.54	7.46	7.28
Sx	2.37	2.61	1.28	2.08
Sy	9.33	8.14	7.89	8.45
Mean (±0.378)	6.18	6.09	5.54	5.93

	PERCENTAGE WARE (1 1/2" RIDDLE)			
N	91.3	89.1	90.1	90.1
Sx	81.6	81.1	74.1	78.9
Sy	92.9	88.4	90.6	90.6
Mean	88.6	86.2	84.9	86.5