ROTHAMSTED RESEARCH

Yields of the Field Experiments 1961

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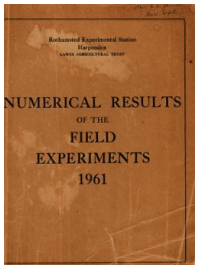

Annual Experiments

Rothamsted Research

Rothamsted Research (1962) *Annual Experiments ;* Yields Of The Field Experiments 1961, pp 107 - 142 **- DOI: https://doi.org/10.23637/ERADOC-1-182**

WINTER WHEAT

Effect of weedkillers on Take-all (Ophiobolus graminis) - Great Field I 1961.

Design: 4 randomised blocks of 4 plots each.

Area of each plot: 0.0318 acres. Area harvested: 0.0147 acres.

Treatments: Unsprayed (0); 2,4-D at $\frac{3}{4}$ pint in 40 gallons per acre (A); CMPP at 6 pints in 40 gallons per acre (B); MCPA/TBA at 4 pints in 40 gallons per acre (C).

Basal dressings per acre: 5$\frac{1}{4}$ cwt ground chalk; 2$\frac{1}{2}$ cwt compound fertiliser (16% P_2O_5, 16% K_2O) combine drilled; 3$\frac{1}{2}$ cwt 'Nitro-Chalk' 21.

Cultivations, etc.: Ground chalk applied: Oct 4, 1960. Ploughed: Oct 15. Seed combine drilled at 3 bushels per acre: Jan 23, 1961. 'Nitro-Chalk' applied: Apr 19. Sprays applied: May 19. Combine harvested: Aug 31. Variety: Cappelle. Previous crop: Winter wheat.

Note. Counts of plant number, and estimates of incidence of Take-all (Ophiobolus graminis) were made.

Standard error per plot.
Grain (at 85% dry matter): 2.49 cwt per acre or 14.1% (9 d.f.)

Summary of Results

Grain (at 85% dry matter): cwt per acre

Spray				
0	A	B	C	Mean
19.4	17.3	17.4	16.6	17.7
	(±1.24)			

Mean dry matter % as harvested: 84.4

https://doi.org/10.23637/ERADOC-1-182

61/Da/2

WINTER WHEAT

Varieties and levels of nitrogen - Deacons Field 1961.

Design: 4 randomised blocks of 12 plots each.

Area of each plot: 0.0212 acres. Area harvested: 0.0141 acres.

Treatments. All combinations of:-
Varieties: Cappelle (C); Professeur Marchal (M); Viking (V).
Levels of nitrogen (in addition to basal): 0.0; 0.3; 0.6; 0.9 cwt N per acre as 'Nitro-Chalk'.

Basal dressing: 2 cwt compound fertiliser (6% N, 15% P_2O_5, 15% K_2O) per acre combine drilled.

Cultivations, etc.: Ploughed: Nov 15 - 25, 1960. Seed combine drilled at 3 bushels per acre: Feb 13, 1961. 'Nitro-Chalk' applied: Apr 15. Sprayed with MCPA/TBA at 4 pints in 40 gallons per acre: May 8. Combine harvested: Sept 8. Previous crop: Spring beans.

Standard error per plot.
Grain (at 85% dry matter): 2.03 cwt per acre or 4.9% (33 d.f.)

Summary of Results

Grain (at 85% dry matter): cwt per acre

N: cwt per acre	Variety C	M	V	Mean
		(±1.01)		(±0.59)
None	31.1	31.7	28.2	30.3
0.3	37.3	37.5	42.2	39.0
0.6	43.1	46.5	49.1	46.2
0.9	50.0	50.4	50.9	50.4
Mean (±0.50)	40.3	41.5	42.6	41.4

Mean dry matter % as harvested: 79.6

https://doi.org/10.23637/ERADOC-1-182

61/Da/3.1

SPRING WHEAT

Combine drilling of nitrogen - Woburn, Great Hill 1961.

Design: 4 randomised blocks of 7 plots each.

Area of each plot: 0.0148 acres. Area harvested: 0.0104 acres.

Treatments:

No nitrogen. 0.40 cwt N per acre (N_1); 0.77 cwt N per acre (N_2) either broadcast as sulphate of ammonia or combine drilled as part of a compound fertiliser.

0.40 cwt N per acre as above plus 0.37 cwt N per acre as 'Nitro-Chalk' top dressing.

Compound fertilisers used:

N_1: 8% N, 8% P_2O_5, 8% K_2O.

N_2: 16% N, 9% P_2O_5, 9% K_2O.

Basal dressing per acre: 0.43 cwt P_2O_5 and 0.43 cwt K_2O combine drilled:

(a) on the plots receiving drilled nitrogen, as compounds N_1, N_2.

(b) on the no nitrogen and broadcast nitrogen plots, as compound 20% P_2O_5, 20% K_2O.

Cultivations, etc.: Ploughed Oct 17 - Dec 8, 1960. Seed combine drilled at 2¾ bushels per acre, sulphate of ammonia applied: Mar 10, 1961. 'Nitro-Chalk' top dressings applied: Apr 21. Sprayed with TCB/MCPA at 4 pints in 40 gallons per acre: May 3. Combine harvested: Aug 29. Variety: Jufy I. Previous crop: Barley.

Note: The very low yields were in part due to a severe attack of Fusarium, which was worst on the plots receiving nitrogen.

Standard error per plot.

Grain (at 85% dry matter): 2.29 cwt per acre or 20.1% (18 d.f.)

https://doi.org/10.23637/ERADOC-1-182

61/Da/3.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

N: cwt per acre

	Broadcast			Drilled			
None	0.40	0.77	0.40 & 0.37+	0.40	0.77	0.40 & 0.77+	Mean
9.4	12.8	12.2	11.2	11.6	11.0	11.6	11.4
			(±1.14)				

Mean dry matter % as harvested: 84.9

+Top dressing.

WINTER AND SPRING WHEAT

Sowing dates, seed rates and levels of nitrogen (after non-cereal crop) - Great Knott III 1961.

Design: 3 randomised blocks of 12 plots each, plots split into 2 for the application of nitrogen.

Area of each sub plot: 0.0148 acres. Area harvested: 0.0097 acres.

Treatments. All combinations of:-

Whole plots. Sowing dates: Sept 29, 1960; Jan 19, 1961; Feb 15 (winter wheat); Feb 15* (spring wheat).
Seed rates: 2; 3; 4 bushels per acre.

Sub plots. Nitrogen (in addition to basal): 0.46; 0.92 cwt N per acre applied as 'Nitro-Chalk' in two equal parts on February 16 and April 19.

* Weather conditions delayed sowing and spring wheat was drilled on Feb 15 instead of a still later sowing of winter wheat.

Basal dressing: 2 cwt compound fertiliser (14% P_2O_5, 28% K_2O) per acre broadcast in seedbed, 3 cwt compound fertiliser (5% N, 12½% P_2O_5, 12½% K_2O) per acre combine drilled with seed.

Cultivations, etc.: Ploughed: Sept 19, 1960. Compound fertiliser applied: First sowing - Sept 29; second sowing - Nov 16; third sowing - Feb 15, 1961. Sprayed with MCPA/TBA at 4 pints in 40 gallons per acre: May 5. Combine harvested: Aug 30. Varieties: Cappelle and Jufy I. Previous crops: 1958 - Spring wheat; 1959 - Winter and spring beans; 1960 - Early potatoes.

Note. Counts of plant shoot and ear number, and estimates of plant height and % area lodged were made.

Standard error per plot, Grain (at 85% dry matter):
Whole plot: 3.30 cwt per acre or 7.4% (22 d.f.)
Sub plot: 3.30 cwt per acre or 7.4% (24 d.f.)

https://doi.org/10.23637/ERADOC-1-182

Summary of Results

Grain (at 85% dry matter): cwt per acre

Seed rate: bushels per acre	Variety and date of sowing: Cappelle (W.W.) Sept 29th	Cappelle (W.W.) Jan 19th	Cappelle (W.W.) Feb 15th	Jufy I (S.W.) Feb 15th	N: cwt per acre (including basal) 0.6	N: cwt per acre (including basal) 1.1	Diff.	Mean
	(±1.91)				(±1.17)*		(±1.35)	(±0.95)
2	44.0	49.0	43.7	41.3	43.3	45.6	+2.3	44.5
3	39.9	47.7	45.7	43.7	43.5	45.0	+1.5	44.2
4	39.7	49.0	47.9	44.9	45.3	45.4	+0.1	45.4
			Variety and date of sowing		(±1.35)*		(±1.56)	(±1.10)
			Sept 29th		42.9	39.5	-3.4	41.2
	Cappelle (W.W.)		Jan 19th		46.3	50.7	+4.4	48.5
			Feb 15th		45.7	45.8	+0.1	45.7
	Jufy I (S.W.)		Feb 15th		41.3	45.3	+4.0	43.3
			Mean		44.0	45.4	+1.4	44.7
							(±0.78)	

*For use in vertical and diagonal comparisons only.

Mean dry matter % as harvested: 86.6

https://doi.org/10.23637/ERADOC-1-182

WINTER AND SPRING WHEAT

Sowing dates, seed rates and levels of nitrogen (after cereal crop) - Great Knott III 1961.

Design: 3 randomised blocks of 8 plots each, plots split into 2 for the application of nitrogen.

Area of each sub plot: 0.0148 acres. Area harvested: 0.0097 acres.

Treatments. All combinations of:-

Whole plots. Sowing dates: Sept 29, 1960; Jan 19, 1961; Feb 15 (winter wheat); Feb 15* (spring wheat).
Seed rates: 2; 4 bushels per acre.

Sub plots. Nitrogen (in addition to basal): 0.46; 0.92 cwt N per acre applied as 'Nitro-Chalk' in two equal parts on February 16 and April 20.

* Weather conditions delayed sowing and spring wheat was drilled on Feb 15th instead of a still later sowing of winter wheat.

Basal dressing: 2 cwt compound fertiliser (14% P_2O_5, 28% K_2O) per acre broadcast in seedbed, 3 cwt compound fertiliser (5% N, 12½% P_2O_5, 12½% K_2O) per acre combine drilled with seed.

Cultivations, etc.: Ploughed: Sept 15, 1960. Compound fertiliser applied: First sowing - Sept 29; second sowing - Nov 16; third sowing - Feb 15, 1961. Sprayed with MCPA/TBA at 4 pints in 40 gallons per acre: May 5. Combine harvested: Aug 30. Varieties: Cappelle and Jufy I. Previous crops: 1958 - Spring wheat; 1959 - Winter beans; 1960 - Winter wheat.

Note. Counts of plant shoot and ear number, and estimates of plant height and % area lodged were made. The incidence of Eyespot (*Cercosporella herpotrichoides*) and Take-all (*Ophiobolus graminis*) was estimated.

Standard errors per plot, Grain (at 85% dry matter):
Whole plot: 1.78 cwt per acre or 5.2% (14 d.f.)
Sub plot: 2.25 cwt per acre or 6.6% (16 d.f.)

https://doi.org/10.23637/ERADOC-1-182

61/Da/5.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

Seed rate: bushels per acre	Variety and date of sowing: Cappelle (W.W.) Sept 29th	Cappelle (W.W.) Jan 19th	Cappelle (W.W.) Feb 15th	Jufy I (S.W.) Feb 15th	N: cwt per acre (including basal) 0.6	N: cwt per acre (including basal) 1.1	Diff.	Mean
	(±1.03)				(±0.69)*		(±0.92)	(±0.51)
2	29.2	35.4	37.9	37.2	31.9	38.0	6.1	34.9
4	27.8	34.3	37.6	36.1	29.6	38.3	8.7	33.9

Variety and date of sowing				
		(±0.98)*	(±1.30)	(±0.73)
Cappelle (W.W.)	Sept 29th	22.4	34.6	12.2	28.5
	Jan 19th	29.9	39.7	9.8	34.8
	Feb 15th	35.2	40.2	5.0	37.7
Jufy I (S.W.)	Feb 15th	35.3	38.0	2.7	36.7
Mean		30.7	38.2	7.5	34.4
				(±0.65)	

*For use in vertical and diagonal comparisons only.

Mean dry matter % as harvested: 85.2

https://doi.org/10.23637/ERADOC-1-182

61/Db/1.1

BARLEY

Forms and methods of application of nitrogen - Great Knott I 1961.

Design: 3 randomised blocks of 20 plots each.

Area of each plot: 0.0194 acres.

Treatments: No nitrogen (2 plots per block) and all combinations of:-
Forms of N: Ammonium sulphate 21% N (S);
Calcium nitrate 15.5% N (C);
Urea 45.6% N (U)
Levels of N: 0.35; 0.70 cwt N per acre.
Methods of application: Broadcast (B); combine drilled (D); side band placed (P).

Basal dressing: 2 cwt granular compound fertiliser (14% P_2O_5, 28% K_2O) per acre.

Cultivations, etc.: Ground chalk applied at 45 cwt per acre: Oct 17, 1960. Ploughed: Nov 29. Seed drilled at $2\frac{1}{2}$ bushels per acre and seedbed fertilisers applied: Mar 14, 1961. Sprayed with CMPP at 6 pints in 40 gallons per acre: May 11. Combine harvested: Aug 16. Variety: Proctor. Previous crop: Winter wheat.

Standard error per plot.
Grain (at 85% dry matter): 1.61 cwt per acre or 4.1% (37 d.f.)

https://doi.org/10.23637/ERADOC-1-182

61/Db/1.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

	Form of N S	C	U	Mean
Mean (±0.38)	39.2	39.6	38.1	39.0 (±0.22)
N: cwt per acre				
0.35 (±0.54)	36.4	36.3	36.0	36.2
0.75	42.1	42.8	40.2	41.7
Diff. (±0.76)	+5.7	+6.5	+4.2	+5.5 (±0.44)
Method of application				
B	38.0	41.1	38.0	39.0
D (±0.66)	40.3	38.3	37.1	38.5 (±0.38)
P	39.5	39.4	39.2	39.3

	Method of application B	D	P
N: cwt per acre			
0.35 (±0.54)	35.8	36.5	36.3
0.70	42.2	40.6	42.3
Diff. (±0.76)	+6.4	+4.1	+6.0

No N: 25.0 (±0.66)

General mean: 37.6

Mean dry matter % as harvested (all plots): 82.5

Form of N
S = Ammonium sulphate 21% N
C = Calcium nitrate 15.5% N
U = Urea 45.6% N

Method of application
B = Broadcast
D = Combine drilled
P = Side band placed

61/Db/2

BARLEY

Levels and methods of application of superphosphate - Sawyers III 1961.

Design: 3 randomised blocks of 14 plots each.

Area of each plot: 0.0146 acres.

Treatments: No superphosphate (2 plots per block) and all combinations of:-

Superphosphate: 0.25; 0.50; 0.75 cwt per acre P_2O_5 as granular superphosphate (20.5% P_2O_5).

Methods of application: Machine broadcast (B); combine drilled (C); side band placed (P); restricted broadcasting* (R).

*i.e. fertiliser surface applied in a band 2" wide immediately above each row of seed.

Basal dressing: 4 cwt compound fertiliser (16% N, 16% K_2O) per acre.

Cultivations, etc.: Ploughed: Nov 28, 1960. Rotary cultivated: Mar 17 and Mar 30 - Apr 12, 1961. Seed drilled at 2½ bushels per acre, fertilisers applied: Apr 14 - 17. Sprayed with CMPP at 6 pints in 40 gallons per acre: May 18. Combine harvested: Aug 22. Variety: Proctor. Previous crop: 6 year grass ley.

Standard error per plot.
Grain (at 85% dry matter): 1.04 cwt per acre or 2.8% (25 d.f.)

Summary of Results

Grain (at 85% dry matter): cwt per acre

P_2O_5: cwt per acre	Method of application B	C	P	R	Mean
		(±0.60)			(±0.30)
0.25	36.4	38.2	38.1	36.7	37.4
0.50	36.9	37.2	38.2	36.4	37.2
0.75	36.8	37.8	38.2	38.6	37.9
Mean (±0.35)	36.7	37.7	38.2	37.2	37.4 (±0.17)

No P_2O_5: 34.0 (±0.42)

General mean : 36.9

Mean dry matter % as harvested (all plots): 83.8

BARLEY

The control of wild oats (Avena fatua) by means of a residual pre-emergence herbicide - Rothamsted (R) Great Field I and Woburn (W) Broadmead I 1961.

Design (each field): 3 randomised blocks of 6 plots each.

Area of each plot (acres): 0.0129. Area harvested: 0.0092.

Treatments. All combinations of:-
Spray. None; herbicide* spray applied to seedbed before sowing.
Cultivation. None; rotary cultivation. Spring tine cultivation (2 strokes).

*The herbicide contained 4 lb per gallon of 2,3-dichloroallyldiisopropyl-thiolcarbamate and was applied at 3 pints in 40 gallons per acre on Great Field I (R) and at 3 pints in 20 gallons per acre on Broadmead I (W).

Basal dressings per acre:
Great Field I (R): 3 cwt compound fertiliser (16% N, 9% P_2O_5, 9% K_2O) combine drilled.
Broadmead I (W): $3\frac{1}{2}$ cwt compound fertiliser (16% N, 9% P_2O_5, 9% K_2O) combine drilled.

Cultivations, etc.:
Great Field I (R): Ground chalk applied at 54 cwt per acre: Oct 4 - 14, 1960. Ploughed: Oct 14. Herbicide spray, spring tine cultivations and rotary cultivation applied: Apr 7, 1961. Seed combine drilled at $2\frac{1}{4}$ bushels per acre: Apr 10. Combine harvested: Aug 18. Variety: Proctor. Previous crop: Winter wheat.
Broadmead I (W): Sprayed with dalapon at 4 lb in 20 gallons per acre: Nov 9, 1960. Ploughed: Dec 13 - Jan 6, 1961. Herbicide spray, spring tine cultivations and rotary cultivation applied: Mar 23. Seed combine drilled at $2\frac{1}{4}$ bushels per acre: Mar 25. Sprayed with MCPA/TBA at 4 pints in 40 gallons per acre: May 3. Combine harvested: Aug 18. Variety: Proctor. Previous crop: Winter wheat.

Note. Counts of wild oats were taken.

Standard error per plot, Grain (at 85% dry matter):
Gt. Field I (R): 2.73 cwt per acre or 8.5% (10 d.f.)
Broadmead I (W): 2.27 cwt per acre or 6.8% (9 d.f.)*

*1 missing value.

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Summary of Results

	Cultivation			
	None	Rotary	Spring tine	Mean
Great Field I (R)				
		(±1.56)		(±0.90)
Unsprayed	29.9	34.5	30.6	31.6
Sprayed	29.9	35.2	32.6	32.6
Mean (±1.11)	29.9	34.8	31.6	32.1
Diff.(±2.23)	0.0	+0.7	+2.0	+1.0
				(±1.29)

Mean dry matter % as harvested: 82.8

Broadmead I (W)				
		(±1.31)		(±0.76)
Unsprayed	30.1	31.1	34.3 +	31.8
Sprayed	35.7	35.1	34.5	35.1
Mean (±0.93)	32.9	33.1	34.4	33.4
Diff.(±1.85)	+5.6	+4.0	+0.2	+3.3
				(±1.07)

Mean dry matter % as harvested: 85.0

+includes 1 estimated value.

https://doi.org/10.23637/ERADOC-1-182

61/Dc/1

SPRING OATS

Frit fly study (sowing dates) - Long Hoos V1, V11 1961.

Design: 2 randomised blocks of 3 plots each.

Area of each plot: 0.4821 acres. Area harvested: 0.0643 acres.

Treatments: Sowing dates: Mar 17; Apr 7; Apr 22, 1961.

Basal dressing: $2\frac{1}{2}$ cwt compound fertiliser (16% N, 9% P_2O_5, 9% K_2O) per acre combine drilled with seed.

Cultivations, etc.: Ploughed: Feb 10 and Mar 7, 1961. Rotary cultivated: Mar 16. Seed combine drilled at 3 bushels per acre: Mar 17, Apr 7 and Apr 22. Sprayed with MCPA/TBA at 4 pints in 40 gallons per acre: first and second sowing - May 15; third sowing - May 25. Combine harvested: first and second sowing - Aug 23; third sowing - Aug 31. Variety: Blenda. Previous crop: Potatoes.

Note. Counts of frit fly and egg numbers, estimates of grain and tiller damage, and of growth rates were made at intervals.

Summary of Results

Grain (at 85% dry matter): cwt per acre

Sowing date

Mar 17	Apr 7	Apr 22	Mean
21.3	18.3	8.2	15.9

Mean dry matter % as harvested: 84.1

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61/Dd/1

SPRING BEANS

The effect of levels of chalk - Great Field I 1961.

Design: 4 randomised blocks of 5 plots each.

Area of each plot: 0.0212 acres. Area harvested: 0.0121 acres.

Treatments: Ground chalk tons per acre applied in two dressings, half before ploughing on Dec 6 and half after ploughing on Dec 13, 1960:- None*; 1; 2; 3; 4.

*The site was very uniform in pH, the maximum range between plots being 5.9 - 6.2.

Basal dressing: 3½ cwt per acre compound fertiliser (14% P_2O_5, 28% K_2O) placement drilled.

Cultivations, etc.: Ploughed: Oct 15 and Dec 9, 1960. Rotary cultivated: Feb 21, 1961. Seed placement drilled at 200 lb per acre: Mar 11. Sprayed with demeton-methyl at 12 fluid oz. in 60 gallons per acre: June 14. Combine harvested: Aug 21. Variety: Garton's Tick. Previous crop: Winter wheat.

Note. Samples were taken for counts of pods and beans.

Standard error per plot.
Grain (at 85% dry matter): 1.64 cwt per acre or 8.3% (12 d.f.)

Summary of Results

Grain (at 85% dry matter): cwt per acre

Ground chalk: tons per acre

None	1	2	3	4	Mean
15.0	17.9	21.7 (±0.82)	22.0	22.5	19.8

Mean dry matter % as harvested: 75.5

https://doi.org/10.23637/ERADOC-1-182

61/Dd/2.1

SPRING BEANS

Control of weeds by residual herbicides - Great Field I 1961.

Design: 3 randomised blocks of 23 plots each.

Area of each plot: 0.0176 acres. Area harvested: 0.0110 acres.

Treatments:
- Beans drilled at normal (21") spacing, no inter row cultivations (0)
- Beans drilled at narrow ($10\frac{1}{2}$") spacing, no inter row cultivations (A)
- Beans drilled at normal (21") spacing, inter cultivated (B)

Treatments 0, A, B taken factorially with:
- No spray:
- Simazine: $\frac{1}{2}$; 1 lb active material per acre (S_1S_2) as pre-emergence spray
- 2,6-DBN: 1; 3 lb active material per acre (D_1D_2) as pre-emergence spray

Treatments 0 and A taken factorially with
- 2,6-DBN: $1\frac{1}{2}$; 3 lb active material per acre as post-emergence spray.

Basal dressing: $3\frac{1}{2}$ cwt per acre compound fertiliser (14% P_2O_5, 28% K_2O) placement drilled.

Cultivations, etc.: Ground chalk applied at 54 cwt per acre: Oct 4, 1960. Ploughed: Oct 14. Seedbed spray applied and worked in: Mar 4, 1961. All plots rotary cultivated except those already sprayed, seed placement drilled at 200 lb per acre: Mar 17. Pre-emergence spray applied: Mar 23. Post-emergence spray applied: May 1. Sprayed with demeton-methyl at 12 fluid oz in 60 gallons per acre: June 10. Combine harvested: Sept 4. Variety: Garton's Spring Tick. Previous crop: Winter wheat.

Note (1). The plots on which 2,6-DBN was worked into the seedbed failed reducing the experiments to 3 blocks of 19 plots each.

Note (2). Weed counts were taken on all wide row plots.

Standard error per plot.
Grain (at 85% dry matter): 2.34 cwt per acre or 9.7% (36 d.f.)

https://doi.org/10.23637/ERADOC-1-182

61/Dd/2.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

	No inter row cultivation		Inter cultivated
	21" row	10½" row	21" row
		(±1.35)	
No spray	22.5	21.0	26.8
Pre-emergence S_1	23.1	21.8	27.0
S_2	27.2	24.5	26.5
D_1	25.9	23.0	25.6
D_2	27.8	23.8	28.3
Post-emergence D_1	21.5	20.6	
D_2	20.0	21.2	
General mean		24.1	

Mean dry matter % as harvested: 79.8

https://doi.org/10.23637/ERADOC-1-182

61/Dd/3

SPRING BEANS

Varietal susceptibility to virus - Great Knott III 1961.

Design: 3 randomised blocks of 7 plots each.

Area of each plot (acres):-0.0161. Area harvested: 0.0100.

Treatments:
Varieties: Albyn Tick (A); Tick 30^{B} (B); Granton (G); Herz Freya (H); Minor (M); Strubes (S); Tick (T).

Basal dressing: 3½ cwt per acre compound fertiliser, 14% P_2O_5, 28% K_2O placement drilled with seed.

Cultivations, etc.: Ground chalk applied at 61 cwt per acre: Mar 7, 1961. Sprayed with diquat at 5½ pints and 12 fluid oz spreader in 80 gallons per acre: Mar 25. Rotary cultivated twice: Mar 30 and Apr 11. Seed placement drilled at 200 lb per acre: Apr 13. Sprayed with simazine at 1 lb active material in 40 gallons per acre: Apr 25. Sprayed with demeton-methyl at 12 fluid oz in 40 gallons per acre: June 24. Combine harvested: Sept 5. Previous crop: Winter wheat.

Note. Counts of virus infected plants and estimates of numbers of aphids were made.

Standard error per plot.
Grain (at 85% dry matter): 1.54 cwt per acre or 8.2% (12 d.f.)

Summary of Results

Grain (at 85% dry matter): cwt per acre

Variety							
A	B	G	H	M	S	T	Mean
21.4	21.3	15.0	13.8 (±0.89)	17.1	21.2	21.1	18.7

Mean dry matter % as harvested: 78.7

https://doi.org/10.23637/ERADOC-1-182

61/Dd/4

SPRING BEANS

Control of aphids by insecticides - Great Knott III 1961.

Design: 4 randomised blocks of 3 plots each.

Area of each plot (acres): 0.0260. Area harvested: 0.0175.

Treatments:
- No insecticide (0)
- Granular systemic insecticide* broadcast at 30 lb (1½ lb active ingredient) per acre (D)
- Sprayed with demeton-methyl at 12 fluid oz in 40 gallons per acre (M).

*O,O-diethyl-S-2-(ethylthio)ethylphosphorodithioate.

Basal dressing per acre: 3½ cwt compound fertiliser, 14% P_2O_5, 28% K_2O placement drilled with seed.

Cultivations, etc.: Ground chalk applied at 61 cwt per acre: Mar 7, 1961. Sprayed with diquat at 5½ pints and 12 fluid oz spreader in 80 gallons per acre: Mar 25. Rotary cultivated twice: Mar 30 and Apr 11. Seed placement drilled at 200 lb per acre: Apr 13. Sprayed with simazine at 1 lb active material in 40 gallons per acre: Apr 25. Granular systemic insecticide applied: May 28. Demeton-methyl applied: June 14. Combine harvested: Sept 12. Variety: Mixed seed. Previous crop: Winter wheat.

Note. Counts of virus infected plants and estimates of numbers of aphids were made.

Standard error per plot.
Grain (at 85% dry matter): 2.84 cwt per acre or 14.5% (6 d.f.)

Summary of Results

Grain (at 85% dry matter): cwt per acre

Spray			
0	D	M	Mean
13.7	23.3 (±1.41)	21.6	19.5

Mean dry matter % as harvested: 81.3

https://doi.org/10.23637/ERADOC-1-182

61/De/1.1

POTATOES

Forms and levels of K - Sawyers I 1961.

Design: 4 blocks of 8 plots each with certain high order interactions partially confounded with block differences.

Area of each plot: 0.0141 acres. Area harvested: 0.0071 acres.

Treatments: No potash (2 plots per block) and all combinations of:-

Forms of K: Potassium bi-carbonate, $KHCO_3$ (C);
Potassium sulphate, K_2SO_4 (S);
Potassium chloride, KCl (M);

Levels of K: 1.25; 2.50 cwt K_2O per acre.

All the above in combination with:-

Levels of N: 0.75; 1.50 cwt N per acre as 'Nitro-Chalk'.

Basal dressing: 0.75 cwt P_2O_5 per acre as triple superphosphate.

Cultivations, etc.: Ploughed: Jan 5, 1961. Ridged: Apr 24. Fertilisers applied, potatoes hand planted: Apr 25. Earthed up: July 6. Lifted: Sept 22. Variety: King Edward. Previous crop: Fallow.

Standard errors per plot.
Total tubers tons per acre: 1.203 tons per acre or 25.7% (13 d.f.)

Note: This is a repetition with the same treatments on the same plots of the experiment of 1959 (see 59/Cf/1).

Summary of Results

Form of K

	0	C	S	M	Mean
Total tubers: tons per acre					
Mean (±0.425)	3.88	4.88	5.13	4.83	4.68
K_2O: cwt per acre					
1.25 (±0.602)	-	5.07	4.89	4.77	4.91 (±0.347)
2.50	-	4.69	5.38	4.89	4.99
Diff. (±0.851)	-	-0.38	+0.49	+0.12	+0.08 (±0.491)
N: cwt per acre					
0.75 (±0.602)	3.92	4.27	5.09	4.21	4.37
1.50	3.83	5.49	5.18	5.45	4.99
Diff. (±0.851)	-0.09	+1.22	+0.09	+1.24	+0.62 (±0.425)
Percentage ware ($1\frac{1}{2}$" riddle)					
Mean	65.1	71.2	71.5	68.0	68.9
K_2O: cwt per acre					
1.25	-	72.4	72.3	64.7	69.8
2.50	-	70.1	70.7	71.4	70.7
Diff.	-	-2.3	-1.6	+6.7	+0.9
N: cwt per acre					
0.75	65.0	70.8	69.3	65.4	67.6
1.50	65.2	71.7	73.6	70.7	70.3
Diff.	+0.2	+0.9	+4.3	+5.3	+2.7

Forms of K

0 = None
C = Potassium bi-carbonate, $KHCO_3$
S = Potassium sulphate, K_2SO_4
M = Potassium chloride, KCl

https://doi.org/10.23637/ERADOC-1-182

61/De/2.1

POTATOES

Time of burning off haulm+ - Whittlocks 1961.

Design: 4 randomised blocks of 9 plots each.

Area of each plot: 0.0565 acres. Area harvested: 0.0141 acres.

Treatments. All combinations of:-

Copper spraying: None; sprayed on 3 occasions with copper fungicide.

Burning off haulm: None; haulm burnt off. Two plots per block for each factorial treatment. In addition one plot per block was sprayed on the second and third occasions with copper fungicide and the haulm burnt off.

Basal dressing: 7 cwt per acre compound fertiliser, 17% N, 11% P_2O_5, 22% K_2O.

Cultivations, etc.: Ground chalk applied at 24 cwt per acre: Sept 6 - 17, 1960. Ploughed: Apr 27, 1961. Rotary cultivated, basal dressing applied, potatoes machine planted: May 2. Earthed up: July 7. Appropriate plots sprayed with copper fungicide at 5 lb in 30 gallons per acre: July 19, Aug 18, Sept 5. Appropriate plots sprayed with undiluted BOV at 15 gallons per acre: Sept 21. Lifted: Oct 18. Variety: King Edward. Previous crop: Barley.

+The experiment was converted to measuring the detrimental effects of copper without interference from blight as there was an exceptionally late and slight attack of the disease. As a result of this alteration the treatments described are not as originally planned.

Note: Periodic samples were taken of the weight of tops and tubers, and an assessment of blight on foliage and in tubers was made.

Standard error per plot.
Total tubers: 1.205 tons per acre or 8.5% (28 d.f.)

Summary of Results

Unsprayed Haulm		Sprayed three times Haulm		Sprayed twice Haulm	Mean
Not burnt off	Burnt off	Not burnt off	Burnt off	burnt off	
Total tubers: tons per acre					
13.95	14.12	14.98	13.86	13.57	14.16
	(±0.426)			(±0.602)	
Percentage ware ($1\frac{1}{2}$" riddle)					
94.8	94.6	95.4	94.5	94.8	94.8

61/De/3

POTATOES

The effect of azotobacter inoculation - Whittlocks 1961.

Design: 4 × 4 Latin square.

Area of each plot: 0.0057 acres. Area harvested: 0.0014 acres.

Treatments. All combinations of:-
Nitrogen: None; 1.2 cwt N per acre applied as 'Nitro-Chalk' in furrows before planting.
Azotobacter inoculation: None - seed potatoes dressed with mineral nutrient solution as used for azotobacter culture medium; seed potatoes inoculated with azotobacter.

Basal manuring (per acre): 7 cwt compound fertiliser, 12% P_2O_5, 24% K_2O, broadcast on the flat before ridging.

Cultivations, etc.: Ground chalk applied at 24 cwt per acre: Sept 6, 1960. Ploughed: Apr 27, 1961. Rotary cultivated: May 8. Basal PK compound applied, ridged: May 9. 'Nitro-Chalk' applied: May 10. Potatoes planted: May 12. Earthed up: July 9. Sprayed with zineb at 2 lb in 40 gallons per acre: Aug 3. Sprayed with undiluted BOV at 15 gallons per acre: Sept 22. Harvested: Oct 4. Variety: King Edward. Previous crop: Barley.

Standard error per plot.
Total tubers: 1.325 tons per acre or 10.5% (6 d.f.)

Note. Counts were made of numbers of azotobacter on tubers and roots.

Summary of Results

N: cwt per acre

	None		1.2		
	Uninoculated	Inoculated	Uninoculated	Inoculated	Mean
	Total tubers: tons per acre				
Mean (±0.663)	10.00	9.38	15.94	15.24	12.64
Increase (±0.937)		-0.62	+5.94	+5.24	

https://doi.org/10.23637/ERADOC-1-182

61/De/4.1

POTATOES

The control of weeds by triazine weedkillers - Rothamsted (R) Long Hoos III and Woburn (W) Warren Field S 1961.

Design: Long Hoos III (R): 3 randomised blocks of 6 plots each.
Warren Field (W): 4 randomised blocks of 6 plots each.

	Area of each plot (acres):	Area harvested (acres):
Long Hoos III (R):	0.0145	0.0032
Warren Field (W):	0.0161	0.0054

Treatments: No weed control (0);
*Mechanical weed control (M);
Simazine: $\frac{1}{2}$ lb (S_1); 1 lb (S_2) active material in 40 gallons per acre.
Methyl-mercapto-triazine: $1\frac{1}{4}$ lb (T_1); $2\frac{1}{2}$ lb (T_2) active material in 40 gallons per acre.

Basal dressing per acre:
Long Hoos III (R): 10 cwt compound fertiliser, 10% N, 10% P_2O_5, 18% K_2O.
Warren field (W): 10 cwt compound fertiliser, 17% N, 11% P_2O_5, 22% K_2O.

Cultivations, etc.:-
Long Hoos III (R): Ground chalk applied at 23 cwt per acre: Sept 17 - Dec 19, 1960. Ploughed: Dec 29. Basal fertiliser applied: Apr 17, 1961. Rotary cultivated, machine planted: Apr 24. Sprays applied: May 1. M plots earthed up: July 6. Sprayed with zineb at 2 lb in 40 gallons per acre: Aug 3. Sprayed with undiluted BOV at 15 gallons per acre: Sept 21. 2 rows per plot hand dug and weighed: Sept 25. Variety: Ulster Supreme. Previous crop: Winter wheat
Warren Field (W): Ground chalk applied at 59 cwt per acre: Dec 17, 1960. Ploughed: Dec 20. Basal fertiliser applied, potatoes machine planted: Apr 17, 1961. Sprays applied: Apr 28. M plots earthed up: July 5. Sprayed with zineb at 2 lb in 40 gallons per acre: Aug 3. Sprayed with undiluted BOV at 12 gallons per acre: Sept 18. Lifted: Sept 22. Variety: King Edward. Previous crop: Winter beans.

Standard errors per plot. Total tubers tons per acre.
Long Hoos III (R): 0.945 tons per acre or 19.0% (10 d.f.)
Warren Field (W): 1.639 tons per acre or 17.3% (15 d.f.)

*Long Hoos III (R): Chain harrowed once, grubbed 3 times, tractor weeded once, earthed up.
Warren Field (W). Harrowed once, grubbed once, earthed up.

https://doi.org/10.23637/ERADOC-1-182

61/De/4.2

Summary of Results

Weed Control

0	M	S_1	S_2	T_1	T_2	Mean
Long Hoos III (R)						
Total Tubers: tons per acre						
		(±0.545)				
2.34	8.03	4.11	5.14	4.03	6.14	4.96
Percentage ware ($1\frac{1}{2}$" riddle)						
77.2	96.4	88.1	92.7	91.9	93.0	89.9
Warren Field (W)						
Total Tubers: tons per acre						
		(±0.819)				
6.47	13.66	8.86	8.75	9.09	9.97	9.47
Percentage ware ($1\frac{1}{2}$" riddle)						
90.9	96.7	95.8	94.2	96.0	95.0	94.8

Weed Control

0 = No weed control
M = Mechanical weed control
S_1 = Simazine: $\frac{1}{2}$ lb active material in 40 gallons per acre
S_2 = Simazine: 1 lb " " " " " " "
T_1 = Methyl-mercapto-triazine: $1\frac{1}{4}$ lb active material in 40 gallons per acre
T_2 = Methyl-mercapto-triazine: $2\frac{1}{2}$ lb " " " " " " "

Note. Two extra plots outside the main experiment on Long Hoos III (R) gave the following results:

2,6 DHN: lb of active material in 40 gallons per acre	Total tubers tons per acre	Percentage ware
$1\frac{1}{2}$	6.84	95.9
3	7.81	94.7

https://doi.org/10.23637/ERADOC-1-182

61/Df/1.1

SUGAR BEET

Control of virus spread by insecticides - Fosters Corner 1961.

Design: 4 × 4 Latin square.

Area of each plot: 0.0560 acres. Area harvested: 0.0121 acres.

Treatments:
Unsprayed (0)
Granular systemic insecticide* harrowed into seedbed at 40 lb (2 lb active ingredient) per acre (D);
Sprayed with demeton methyl at 12 fluid oz in 60 gallons per acre on June 14, 1961, after receipt of spray warning (M);
Foliar application* at 30 lb (1½ lb active ingredient) per acre (F).

*O, O-diethyl-S-2-(ethylthio) ethylphosphorodithioate.

Basal dressing per acre: 3 cwt agricultural salt and 6 cwt compound fertiliser (16% N, 9% P_2O_5, 9% K_2O).

Cultivations, etc.: Ploughed: Sept 22, 1960. Salt applied: Feb 16, 1961. Ploughed 2nd time: Feb 17. Basal compound fertiliser applied: Mar 20. Granular systemic insecticide broadcast: Apr 11. Seed drilled at 9½ lb per acre: Apr 13. Singled: June 5. Lifted: Oct 23. Variety: Klein E. Previous crop: Spring wheat.

Note: Regular counts of aphids numbers and estimates of incidence of virus yellows were made.

Standard error per plot.
Roots (washed): 0.862 tons per acre or 5.3% (6 d.f.)
Total sugar: 3.03 cwt per acre or 5.7% (6 d.f.)

https://doi.org/10.23637/ERADOC-1-182

Summary of Results

	Insecticide				
	0	D	M	F	Mean
Roots (washed): tons per acre					
Mean (±0.431)	15.92	17.13	16.11	16.11	16.32
Increase (±0.610)		1.21	0.19	0.19	
Sugar percentage					
Mean	16.2	16.4	16.0	16.6	16.3
Increase		+0.2	-0.2	+0.4	
Total sugar: cwt per acre					
Mean (±1.52)	51.6	56.3	51.6	53.5	53.2
Increase (±2.14)		4.7	0.0	1.9	

Insecticide

0 = Unsprayed
D = Granular systemic insecticide* harrowed into seedbed at 40 lb (2 lb active ingredient) per acre
M = Sprayed with demeton methyl at 12 fluid oz in 60 gallons per acre on June 14, 1961, after receipt of spray warning
F = Foliar application* at 30 lb (1½ lb active ingredient) per acre.

*0,0-diethyl-S-2-(ethylthio)ethylphosphorodithioate.

https://doi.org/10.23637/ERADOC-1-182

61/Dg/1.1

GRASS

Levels of N and K - Harwoods Piece 1961 - the 4th year.

Design: 4 randomised blocks of 12 plots each.

Area of each plot: 0.0087 acres. Area harvested: 0.0057 acres.

Treatments: None and all combinations of:-
Nitrogen: 0.3; 0.6; 0.9 cwt N per acre as 'Nitro-Chalk'.
Potash: None; 0.3; 0.6 cwt K_2O per acre as muriate of potash.
All the above in the presence of 0.6 cwt P_2O_5 per acre as superphosphate.
In addition 2 plots per block, receiving 0.9 cwt N and 0.6 cwt K_2O per acre, also received phosphate at either None or 1.2 cwt P_2O_5 per acre as superphosphate.

Note: (1) N and K dressings are applied for each cut. All P dressings are applied once annually.
(2) All treatments were applied to the same plots as in the previous seasons.

Basal dressing: None.

Cultivations, etc.: Sprayed with dalapon at 8 lb in 40 gallons per acre: Sept 7, 1960. 1st dressing of fertilisers applied: Mar 3, 1961. Cut twice: May 12 and July 4.

Standard errors per plot. Dry matter:
1st cut: 3.04 cwt per acre or 6.4% (33 d.f.)
2nd cut: 1.16 cwt per acre or 8.8% (33 d.f.)
Total of 2 cuts: 3.28 cwt per acre or 5.4% (33 d.f.)

Note: (3) For details of the previous years results see 'Results of the Field Experiments' 58/Cg/2, 59/Cg/2 and 60/Ci/1.

https://doi.org/10.23637/ERADOC-1-182

61/Dg/1.2

Summary of Results

Dry matter: cwt per acre

cwt per acre* N	0.0	0.3	0.3	0.3	0.6	0.6	0.6	0.9	0.9	0.9	0.9	0.9	
P_2O_5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.0	1.2	
K_2O*	0.0	0.0	0.3	0.6	0.0	0.3	0.6	0.0	0.3	0.6	0.6	0.6	Mean
1st cut (±1.51)	12.0	43.5	39.7	39.7	53.0	54.8	55.1	52.9	52.6	53.6	54.3	54.3	47.1
2nd cut (±0.58)	5.1	10.5	10.9	10.9	13.5	11.7	12.5	15.0	16.4	17.7	17.3	17.8	13.3
Total of 2 cuts (±1.64)	17.2	54.0	50.6	50.6	66.5	66.5	67.6	67.9	69.0	71.3	71.6	72.1	60.4

*For each cut.

Mean dry matter % as cut:

1st cut:	22.1
2nd cut:	32.4
Total of 2 cuts:	27.2

61/Dh/1.1

LUCERNE

Control of weeds by simazine and row spacing - Woburn Mill Dam Close 1961.

Design: 2 replicates of 12 treatments arranged in one randomised block. *

Area of each plot: 0.0082 acres. Area harvested: 0.0046 acres.

Treatments. All combinations of:
Row spacing: 7 inches; 14 inches.
Method of control: None (0); mechanically cultivated (M);
Simazine 1½; 3 lb active ingredient per acre each applied ~~either~~ in spring (1½ E; 3 E) or ¾ lb in spring (¾ E).

Basal dressing: 4 cwt per acre compound fertiliser (14% P_2O_5, 28% K_2O).

Cultivations, etc.: Harrowed: June 28 and July 20, 1960. Seed drilled at 20 lb per acre: Aug 11. Sprayed with diquat at 2½ pints in 80 gallons per acre: Dec 17. Basal fertiliser applied: Mar 6, 1961. Simazine sprays applied: Mar 28 and Sept 19. Cut three times: June 13, July 25, Sept 8. Variety: Du Puits. Previous crop: Kale.

*Originally 2 randomised blocks of 20 plots each, but some plots were abandoned owing to mole and bird damage.

Standard error per plot. Dry matter cwt per acre:

1st cut:	9.78 cwt per acre or 28.5%	(14 d.f.)
2nd cut:	9.01 cwt per acre or 30.8%	(14 d.f.)
3rd cut:	4.51 cwt per acre or 14.3%	(14 d.f.)
Total of 3 cuts:	19.36 cwt per acre or 20.4%	(14 d.f.)

https://doi.org/10.23637/ERADOC-1-182

Summary of Results

Dry matter: cwt per acre

Row spacing: inches	Method of control: 0	M	1½E	3E	¾E	Mean
1st cut						
	(±6.91)		(±4.89)	(±6.91)		
7	46.9	38.3	33.4	22.9	46.6	36.9
14	35.3	43.5	26.4	26.0	32.4	31.7
Mean	41.1	40.9	29.9	24.5	39.5	34.3
	(±4.89)		(±3.46)	(±4.89)		
Diff.	-11.6	+5.2	-7.0	+3.1	-14.2	-5.2
	(±9.78)		(±6.91)	(±9.78)		(±3.99)
2nd cut						
	(±6.37)		(±4.51)	(±6.37)		
7	33.1	22.8	31.4	21.3	39.1	29.9
14	28.7	33.7	27.4	26.5	28.7	28.7
Mean	30.9	28.3	29.4	23.9	33.9	29.3
	(±4.51)		(±3.19)	(±4.51)		
Diff.	-4.4	+10.9	-4.0	+5.2	-10.4	-1.2
	(±9.01)		(±6.37)	(±9.01)		(±3.68)

Mean dry matter % as harvested:
1st cut: 23.1
2nd cut: 18.8

Method of control

0 = None
M = Mechanically cultivated
1½E; 3E = Simazine 1½ lb; 3 lb active ingredient per acre applied in spring
~~1½EL~~ = ~~Simazine 1½ lb active ingredient per acre applied half in spring half in autumn 1961~~.

https://doi.org/10.23637/ERADOC-1-182

Dry matter: cwt per acre

Row spacing: inches	Method of control 0	M	1½E	3E	¾E	Mean
3rd cut						
	(±3.19)		(±2.26)	(±3.19)		
7	31.3	28.4	31.9	28.6	38.0	31.7
14	29.4	35.4	31.3	28.4	31.5	31.2
Mean	30.4	31.9	31.6	28.5	34.8	31.5
	(±2.26)		(±1.59)	(±2.26)		
Diff.	-1.9	+7.0	-0.6	-0.2	-6.5	-0.5
	(±4.51)		(±3.19)	(±4.51)		(±1.84)
Total of 3 cuts						
	(±13.69)		(±9.68)	(±13.69)		
7	111.4	89.6	96.8	72.9	123.8	98.5
14	93.4	112.6	85.1	81.0	92.7	91.6
Mean	102.4	101.1	90.9	76.9	108.2	95.1
	(±9.68)		(±6.84)	(±9.68)		
Diff.	-18.0	+23.0	-11.7	+8.1	-31.1	-6.9
	(±19.36)		(±13.69)	(±19.36)		(±7.90)

Mean dry matter % as harvested:
3rd cut: 19.6
Total of 3 cuts: 20.5

Method of control

0 = None
M = Mechanically cultivated
1½E; 3E = Simazine 1½ lb; 3 lb active ingredient per acre applied in spring
~~1½E~~ = ~~Simazine 1½ lb active ingredient per acre applied half in spring half in autumn 1961.~~

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61/Di/1.1

CARROTS

The effect of a systemic insecticide on yield through control of motley dwarf virus - Woburn Lansome Field 1961.

Design: A plaid rectangle of 4 rows and 8 columns.

Area of each sub plot: 0.0048 acres. Area harvested: 0.0030 acres.

Treatments. All combinations of:-
Sowing dates (to columns): Apr 13 (D1); May 16 (D2).
Times of spraying with demeton methyl at 12 fluid oz in 40 gallons per acre:
To treatment D1: None (0); May 15 (S1); May 29 (S2); June 19 (S3).
To treatment D2: None (0); June 5 (S1); June 19 (S2); July 7 (S3).
Infection dates: To treatment D1: May 23 (I1); June 14 (I2).
To treatment D2: June 15 (I1); July 3(I2).

Basal dressing: 10 cwt per acre compound fertiliser (10% N, 10% P_2O_5, 18% K_2O).

Cultivations, etc.: Sprayed with dalapon at 8 lb in 20 gallons per acre: Oct 13, 1960; and at 4 lb in 20 gallons per acre: Nov 9. Ploughed: Dec 5. Basal dressing applied: Apr 10, 1961. Seed drilled at 5 lb per acre: Apr 13 and May 16. Thinned: 1st sowing - June 19; 2nd sowing - July 24. Lifted: Sept.26. Variety: Scarlet Intermediate. Previous crop: Spring wheat.

Note: Aphid counts and estimates of virus infection were made.

Standard error per plot.
Saleable roots: 1.210 tons per acre or 20.4% (10 d.f.)
Tops from saleable roots: 0.467 tons per acre or 18.4% (10 d.f.)

https://doi.org/10.23637/ERADOC-1-182

61/Di/1.2

Summary of Results

Time of spraying

	S_0	S_1	S_2	S_3	Mean
Saleable roots: tons per acre					
Mean (±0.428)	6.85	6.42	5.71	4.79	5.94
Sowing date					
Apr 13	7.14	6.85	6.83	6.14	6.74
May 16	6.56	5.98	4.60	3.45	5.15
Diff.(±0.856)**	-0.58	-0.87	-2.23	-2.69	-1.59
Infection date					
I_1	6.75	6.45	6.02	4.40	5.90
I_2	6.95	6.38	5.41	5.19	5.98
Diff.(±0.856)	+0.20	-0.07	-0.61	+0.79	+0.08 (±0.428)

Infection date	Sowing date: Apr 13	Sowing date: May 16
	(±0.428)*	
I_1	6.56	5.25
I_2	6.93	5.04

Tops from saleable roots: tons per acre					
Mean (±0.165)	2.76	2.83	2.45	2.09	2.53
Sowing date					
Apr 13	1.95	1.96	1.98	1.80	1.92
May 16	3.57	3.70	2.93	2.39	3.14
Diff. (±0.330)**	+1.62	+1.74	+0.95	+0.59	+1.22
Infection date					
I_1	2.88	2.84	2.62	1.92	2.57
I_2	2.64	2.81	2.29	2.26	2.50
Diff.(±0.330)	-0.24	-0.03	-0.33	+0.34	-0.07 (±0.165)

Infection date	Sowing date: Apr 13	Sowing date: May 16
	(±0.165)*	
I_1	1.91	3.23
I_2	1.94	3.06

*For use in vertical and interaction comparisons only

**For use only in testing the difference of 2 differences

https://doi.org/10.23637/ERADOC-1-182

	Time of spraying				
	S_0	S_1	S_2	S_3	Mean
	Saleable numbers: thousands per acre				
Mean	109.9	113.6	111.6	104.5	109.9
Sowing date					
Apr 13	107.7	115.8	115.0	107.3	111.5
May 16	112.0	111.5	108.3	101.7	108.4
Diff.	+4.3	-4.3	-6.7	-5.6	-3.1
Infection date					
I_1	107.7	115.8	112.9	96.6	108.2
I_2	112.1	111.5	110.4	112.4	111.6
Diff.	+4.4	-4.3	-2.5	+15.8	+3.4

Infection date	Sowing date	
	Apr 13	May 16
I_1	109.9	106.6
I_2	113.0	110.1