ROTHAMSTED RESEARCH

Yields of the Field Experiments 1967

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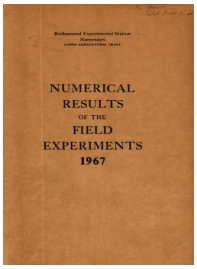

Annual Experiments

Rothamsted Research

Rothamsted Research (1968) *Annual Experiments ;* Yields Of The Field Experiments 1967, pp 275 - 353 **- DOI: https://doi.org/10.23637/ERADOC-1-157**

WINTER WHEAT

(RW 101)

Wheat bulb fly - seed rates and methods of sowing - Stackyard 1967.

Design: 6 randomised blocks of 4 plots.

Area of each plot: 0.0193. Area harvested: 0.0138.

Treatments: All combinations of:-
1. Sowing methods: Broadcast by drill (B), drilled (D).
2. Seed rates: 65 lb (R1), 183 (R3).

Basal applications: 280 lb (6:15:15) broadcast by drill. 0.84 cwt N as 'Nitro-Chalk' in spring. Weedkiller: Ioxynil/mecoprop (Actril C at 6 pints in 20 gals).

Cultivations, etc.: Rotary cultivated: Mar 30 and May 19, 1966. Deep-tine cultivated: June 9. Rotary cultivated: July 1. Seed sown, NPK basal compound applied: Nov 4. 'Nitro-Chalk' applied: Apr 18, 1967. Sprayed: May 9. Combine harvested: Aug 30. Variety: Cappelle. Previous crops: Winter wheat 1965, fallow 1966.

NOTE: Samples were taken from late February until mid-May to estimate numbers of plants, shoots, larvae and pupae and damaged plants and shoots.

Standard error per plot.
Grain: 3.45 or 10.2% (13 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Da/1.2

SUMMARY OF RESULTS

GRAIN

	R1	R3	Mean
	(±1.41)		(±1.00)
B	29.5	41.0	35.3
D	20.8	43.5	32.1
Mean (±1.00)	25.2	42.2	33.7

Mean D.M. %: 84.7

https://doi.org/10.23637/ERADOC-1-157

67/Da/2.1

WINTER WHEAT

(RW 201)

CCC and eyespot - Claycroft 1967.

Design: 4 x 4 Latin square.

Area of each plot: 0.0202. Area harvested: 0.0104.

Treatments: No chlormequat (O)
Sprayed with chlormequat* at 2.5 lb in 37 gals:-
Early (at 3 leaf stage) (E)
At 5 leaf stage (M)
Late (at shooting stage) (L)

* 2-chloroethyltrimethylammonium chloride, formerly described as CCC.

Basal applications: 410 lb (6:15:15) combine drilled, 1.2 cwt N as 'Nitro-Chalk' in spring.

Cultivations, etc.: Ploughed: Oct 6, 1966. Seed drilled at 180 lb: Oct 28. Chlormequat applied: E - Feb 6, 1967 and M - Mar 21. 'Nitro-Chalk' applied: Apr 19. Chlormequat applied: L - Apr 26. Combine harvested: Aug 31. Variety: Champlein. Previous crops: Barley 1965 and 1966.

NOTE: Samples were taken on 29th June for estimation of eyespot (Cercosporella herpotrichoides).

Standard error per plot.
Grain: 2.45 or 4.2% (15 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Da/2.2

SUMMARY OF RESULTS

GRAIN

O	E	M	L	Mean
54.9	60.4	58.0	58.6	58.0
	(±1.23)			

Mean D.M. %: 83.2

https://doi.org/10.23637/ERADOC-1-157

67/Da/3.1

WINTER WHEAT

(RW 301)

Effects of CCC - Long Hoos V 1967.

Design: 4 blocks of 8 plots, randomisation restricted.

Area of each plot: 0.024l. Area harvested: 0.00l4.

Treatments: All combinations of:-
1. Chlormequat*: No spray (C0), 2.5 lb in 40 gals (C1) in spring.
2. Nitrogen: None (N0), 0.8 (N1), 1.6 (N2), 2.4 (N3) cwt N as 'Nitro-Chalk'.

* 2-chloroethyltrimethylammonium chloride, formerly called CCC.

NOTE: (1) A wetter was included in the CCC spray.

Basal applications: 340 lb (0:20:20) combine drilled. Weedkiller: Ioxynil/mecoprop (Actril C at 6 pints in 32 gals). Seed dressed with ethion against wheat bulb fly.

Cultivations, etc.: Ploughed: Sept 13, 1966. Seed drilled at 210 lb: Oct 27. Chlormequat applied: Mar 21. 'Nitro-Chalk' applied: Apr 18. Sprayed (Weedkiller): Apr 26. Combine harvested: Aug 31. Variety: Cappelle. Previous crops: Winter beans 1965, fallow 1966.

NOTE: (2) Crop samples were taken at intervals after the ears emerged to determine leaf area. Counts of shoots were made from time to time.

Standard error per plot.
Grain: 2.29 or 5.1% (21 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Da/3.2

SUMMARY OF RESULTS

GRAIN

	NO	N1	N2	N3	Mean
		(±1.15)			(±0.57)
CO	41.5	48.1	44.9	43.2	44.4
CS	46.4	48.7	45.5	43.6	46.0
Mean (±0.81)	43.9	48.4	45.2	43.4	45.2

Mean D.M. %: 85.0

https://doi.org/10.23637/ERADOC-1-157

67/Da/4.1

WINTER WHEAT

(RW 401)

Spun and drilled seed, and cultivations - Long Hoos IV 1967.

Design: 2 randomised blocks of 4 plots, split into 4.

Area of each sub plot: 0.0135. Area harvested: 0.0096.

Treatments:

Spun seed: All combinations of:-

Whole plots: 1. Seed rate: 170 lb (M), 235 lb (H).

Sub plots: 2. Seedbed cultivations: Plough, spring-tine cultivate twice, sow, harrow (C1). Plough, spring-tine cultivate, sow, spring-tine cultivate, harrow (C2). Plough, spring-tine cultivate twice, harrow, sow, harrow (C3). Plough, sow, spring-tine cultivate twice, harrow (C4).

Drilled seed: All combinations of:-

Whole plots: 1. Seed rate: 150 lb (L), 190 lb (M).

Sub plots: 2. Seedbed cultivations: C1, C3 as above (duplicate treatments in each case).

Basal applications: 220 lb (0:20:20), 0.84 cwt N as 'Nitro-Chalk' as a top dressing. Weedkiller: Ioxynil/mecoprop (Actril C at 6 pints in 32 gals).

Cultivations, etc.: Ploughed: Sept 26, 1966. Basal PK compound applied: Oct 28. Seed sown: Nov 1. 'Nitro-Chalk' applied: Apr 5, 1967. Sprayed: Apr 29. Combine harvested: Aug 31. Variety: Cappelle. Previous crops: Winter wheat 1965, spring beans 1966.

Standard errors per plot. Grain:

Whole plot: 1.94 or 4.2% (6 d.f.)

Sub plot: 1.58 or 3.4% (40 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Da/4.2

SUMMARY OF RESULTS

GRAIN

SPUN SEED

	C1	C2	C3	C4	Mean
	(1) and (2)				(±0.97)
M	46.9	46.8	48.1	46.7	47.1
H	43.1	42.2	42.7	45.6	43.4
Mean (±0.56)	45.0	44.5	45.4	46.1	45.2

DRILLED SEED

	C1	C3	Mean
	(3) and (4)		(±0.97)
L	48.1	47.6	47.8
M	47.5	47.4	47.4
Mean (±0.39)	47.8	47.5	47.6

(1) (±1.18) (3) (±1.05) For use in vertical and diagonal comparisons
(2) (±0.79) (4) (±0.56) For use in horizontal and interaction comparisons

Pooled mean: 46.4
Pooled mean D.M. %: 85.1

https://doi.org/10.23637/ERADOC-1-157

67/Da/5.1

SPRING WHEAT

(RW 501)

Comparison of combines - Fosters West Side 1967.

Design: 8 randomised blocks of 6 plots, with N levels applied to blocks. For plot length harvested plots are either whole, halved or quartered.

Area of each plot:	Area harvested:
Whole plots:	
Small combine: 0.0110	0.0043
Large combine: 0.0221	0.0086
Half plots:	
Small combine: 0.0055	0.0021
Large combine: 0.0110	0.0043
Quarter plots:	
Small combine: 0.0028	0.0011
Large combine: 0.0055	0.0021

Treatments: All combinations of:-

To blocks: 1. Nitrogen: 0.6 (N1), 1.2 (N2) cwt N as basal compound plus 'Nitro-Chalk'.

To plots: 2. Combine harvesters: PAM 150S cutting 8 rows (4'8''), Clayson M103 cutting 16 rows (9'4''), between blank rows.

3. Length harvested: 40 feet (whole plot), 2 x 20 feet (half plots), 4 x 10 feet (quarter plots).

Basal applications: 270 lb (25:10:10) combine drilled. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 30 gals).

Cultivations, etc.: Ground chalk applied at 23 cwt: Dec 5, 1966. Ploughed: Jan 12, 1967. Seed drilled at 174 lb: Mar 15. 'Nitro-Chalk' applied: Mar 21. Sprayed: May 12. Combine harvested: Aug 24. Variety: Kloka. Previous crops: Barley 1965, potatoes 1966.

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

GRAIN

Combine Harvester	N1			N2			
	Whole plot	Half plot	Quarter plot	Whole plot	Half plot	Quarter plot	Mean
PAM 150S	45.3	42.6	43.1	49.7	48.1	45.1	45.6
CLAYSON M103	46.4	45.9	45.8	50.0	49.2	47.8	47.5

Mean D.M. %: 81.5

67/Da/5.2

67/Da/6

SPRING WHEAT

(RW 601)

Effect of gaps - Little Hoos 1967.

Design: 5 x 5 Latin square.

Area of each plot: 0.0120. Area harvested: 0.0121.

Treatments: (each plot 17'6'' wide, i.e. nominally 30 rows at 7'' spacing, paths 1 foot wide between plots. The full width was harvested for yield).

No rows missing, 30 rows harvested	(G0)
8 rows missing, 11(8)11 harvested	(G8)
8 rows missing, 7(4)8(4)7 harvested	(G4)
8 rows missing, 5(2)4(2)4(2)4(2)5 harvested	(G2)
8 rows missing, 4(1)2(1)2(1)2(1)2(1)2(1)2(1)2(1)2(1)4 harvested	(G1)

Note: (8) etc. indicate number of blank rows.

Basal applications: 340 lb (25:10:10) combine drilled. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 30 gals).

Cultivations, etc.: Deep-tine cultivated: Nov 12 and 17, 1966. Seed drilled at 175 lb: Mar 15, 1967. Weedkiller applied: May 12. Combine harvested: Aug 23. Variety: Kloka. Previous crops: Fallow 1965, potatoes 1966.

Standard error per plot.
Grain: 1.31 or 3.1% (10 d.f.)*

* 2 estimated values

SUMMARY OF RESULTS

GRAIN

	G0	G8	G4	G2	G1	Mean
Mean (±0.59)	47.6	37.3	38.0	41.9	44.2	41.8

Mean D.M. %: 83.3

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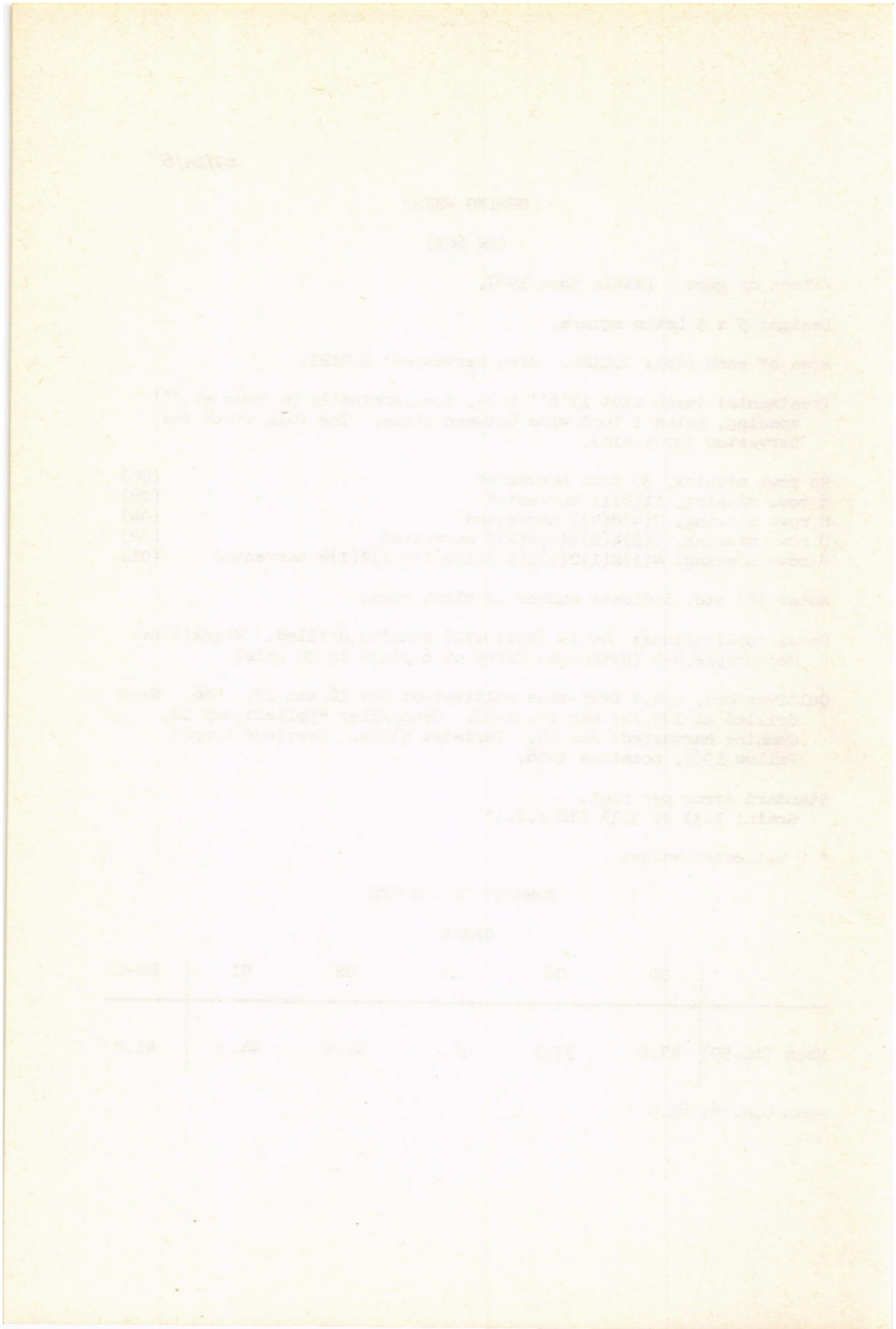


67/Da/7.1

SPRING WHEAT

(RW 701)

Effects of CCC - Long Hoos V 1967.

Design: 4 blocks of 8 plots, randomisation restricted.

Area of each plot: 0.0193. Area harvested: 0.0111.

Treatments: All combinations of:-
1. Chlormequat*: No spray (C0), 2.5 lb in 40 gals (C5) in spring at 5 leaf stage.
2. Nitrogen: None (N0), 0.8 (N1), 1.6 (N2), 2.4 (N3) cwt N as 'Nitro-Chalk'.

* 2-chloroethyltrimethylammonium chloride formerly called CCC.

NOTE: (1) A wetter was included in the CCC spray.

Basal applications: 340 lb (0:20:20) combine drilled. Weedkiller: Ioxynil/mecoprop (Actril C at 5 pints in 20 gals).

Cultivations, etc.: Ploughed: Sept 26, 1966. Seed drilled at 175 lb: Mar 14, 1967. 'Nitro-Chalk' applied: Mar 28. Sprayed (weedkiller): May 12. Sprayed with chlormequat: May 31. Combine harvested: Aug 24. Variety: Kloka. Previous crops: Winter beans 1965, fallow 1966.

NOTE: (2) Crop samples were taken at intervals after the ears emerged to determine leaf area. Counts of shoots were made from time to time.

Standard error per plot.
Grain: 4.00 or 8.9% (21 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

GRAIN

	N0	N1	N2	N3	Mean
			(±2.00)		(±1.00)
CO	36.9	48.3	50.2	48.0	45.8
CS	34.4	47.7	46.8	47.7	44.1
Mean (±1.42)	35.6	48.0	48.5	47.9	45.0

Mean D.M. %: 79.7

https://doi.org/10.23637/ERADOC-1-157

67/Da/8.1

SPRING WHEAT

(RW801 and WW301)

Anhydrous ammonia as a fertiliser - Rothamsted (R), Great Knott I and Woburn (W) Great Hill S.W. 1967.

Design: 4 randomised blocks of 8 plots.

Area of each plot: 0.0321. Area harvested: 0.0213.

Treatments: All combinations of:-

1. Forms of N: Broadcast 'Nitro-Chalk' (B), injected anhydrous ammonia (I).
2. Levels of N: 0.5 (N1), 1.0 (N2), 1.5 (N3) cwt N together with no nitrogen - without (N0), with (N0I), the injector running idle through the soil.

Basal applications:

Great Knott I (R): 40 cwt ground chalk, 250 lb (0:20:20) combine drilled. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 30 gals).

Great Hill S.W. (W): 40 cwt ground chalk, 280 lb (0:20:20) combine drilled. Weedkiller: Ioxynil/mecoprop (Actril C at 5 pints in 35 gals).

Cultivations, etc.:

Great Knott I (R): Ground chalk applied: Nov 11, 1966. Ploughed: Sept 28. Anhydrous ammonia injected: Mar 8, 1967. 'Nitro-Chalk' applied, seed drilled at 185 lb: Mar 14. Weedkiller applied: May 11. Combine harvested: Aug 24. Variety: Kloka. Previous crops: Potatoes 1965, winter wheat 1966.

Great Hill S.W. (W): Ground chalk applied: Nov 3, 1966. Deep-tine cultivated: Feb 3, 1967. Anhydrous ammonia injected: Mar 8. 'Nitro-Chalk' applied: Mar 13. Seed drilled at 170 lb: Mar 14. Weedkiller applied: May 3. Combine harvested: Aug 22. Variety: Kloka. Previous crops: Barley 1965, potatoes 1966.

NOTES: (1) Green crop samples were taken on 28th June, for yield and N content.

(2) Owing to a failure of the injector little ammonia was injected into plot WW326 - IN2. An estimated value was used in the analysis.

Standard errors per plot (estimated from plots receiving N). Grain:

Great Knott I (R): 2.28 or 6.9% (15 d.f.)

Great Hill S.W(W): 4.51 or 13.6% (14 d.f.)*

* 1 estimated value.

67/Da/8.2

SUMMARY OF RESULTS

GREAT KNOTT I (R)

GRAIN

	N1	N2	N3	Mean
		(±1.14)		(±0.66)
B	28.5	35.4	36.3	33.4
I	26.8	32.5	38.0	32.4
Mean (±0.81)	27.7	34.0	37.1	32.9

	NO	NOI	Mean
	18.8	20.1	19.4
		(±1.14)	

General mean: 29.6

Mean D.M. %: 80.9

https://doi.org/10.23637/ERADOC-1-157

67/Da/8.3

GREAT HILL S.W. (W)

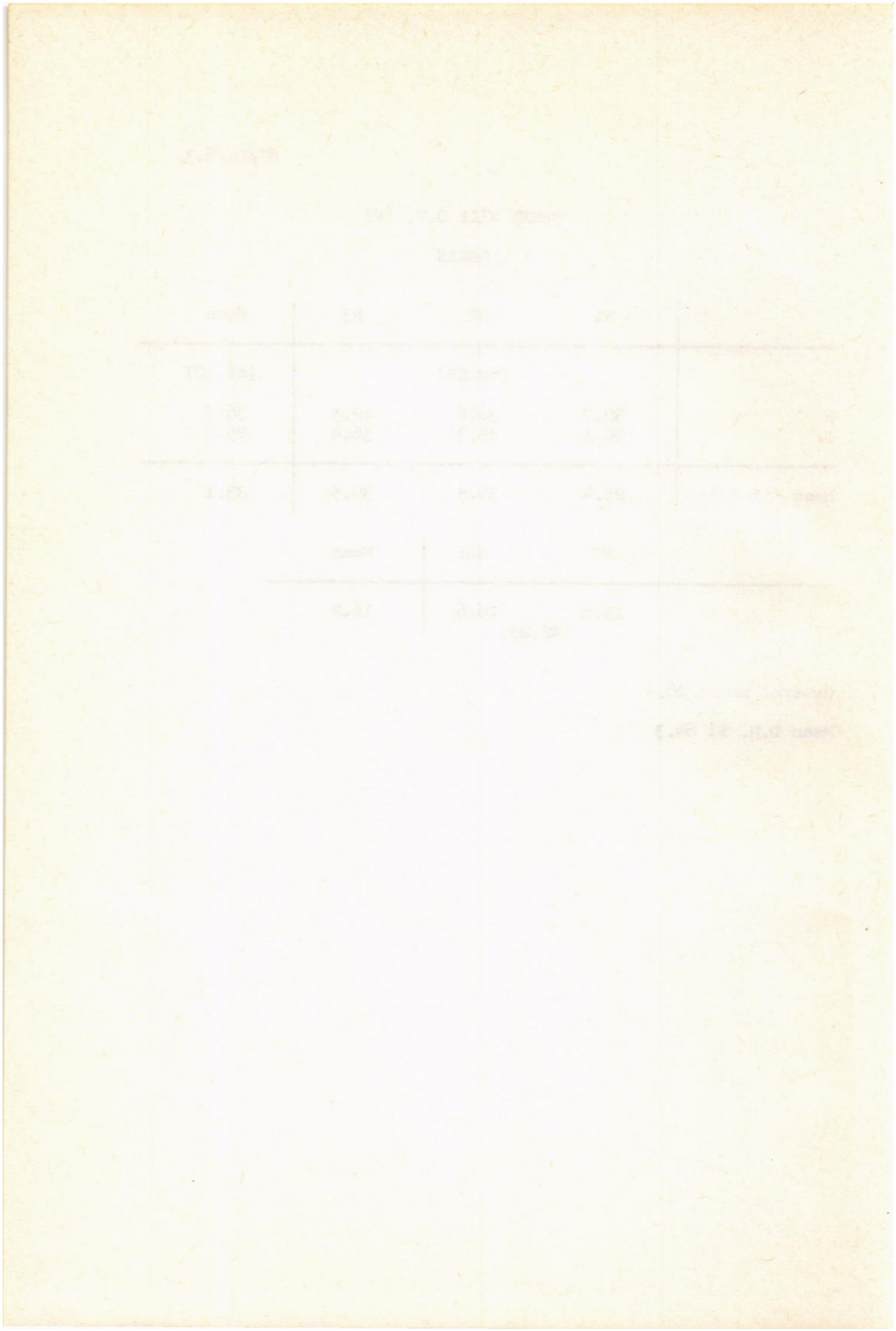
GRAIN

	N1	N2	N3	Mean
		(±2.25)		(±1.30)
B	30.7	35.6	42.5	36.3
I	20.1	33.3	36.4	29.9
Mean (±1.59)	25.4	34.5	39.5	33.1

NO	NOI	Mean
15.8	16.6 (±2.25)	16.2

General mean: 28.9

Mean D.M. %: 84.3



67/Da/9.1

SPRING WHEAT

(WW 101)

CCC, irrigation, and nitrogen - Woburn Butt Close (Series II) 1967.

Design: 4 blocks of 2 plots split into 2 for CCC and again into 2 for nitrogen N4 - N3 + N2 - N1 on half plots.

Area of each quarter plot: 0.0136. Area harvested: 0.0036.

Treatments: All combinations of:-
- Main plots: 1. Irrigation: None (O), full irrigation (C).
- Half plots: 2. Chlormequat*: None (O), chlormequat sprayed at 2.5 lb in 37 gals (S).
- Quarter plots: 3. Nitrogen: 0.4 (N1), 0.8 (N2), 1.2 (N3), 1.6 (N4) cwt N as 'Nitro-Chalk'.

* 2-chloroethytrimethylammonium chloride, formerly described as CCC.

Basal applications: 240 lb (0:14:28) combine drilled. Weedkiller: Ioxynil/mecoprop (Actril C at 5 pints in 25 gals).

Cultivations, etc.: Ploughed: Nov 3, 1966. Basal PK applied, seed drilled at 170 lb: Mar 7, 1967. 'Nitro-Chalk' applied: Mar 14. Weedkiller applied: Apr 28. CCC applied: May 23. C plots, irrigation applied at 0.25 inches: July 11, July 21, at 0.5 on each of the following occasions: June 12, June 15, July 4, July 10, July 17, and at 1.0 inch: June 20 (total 4 inches). Combine harvested: Aug 24. Variety: Kloka.

NOTES: (1) Plant samples were taken on July 5 for estimates of dry weight of tops and roots. Soil cores were also taken for estimates of the weight of roots left in the soil.
(2) Sub-plots 101 - 132 were sampled on Aug 22 for estimates of straw height and weight.

Standard errors per plot. Grain:
- 1/2 plot: 2.38 or 5.3% (4 d.f.)
- 1/4 plot: 2.56 or 5.7% (8 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

GRAIN

	N1	N2	N3	N4	Mean
		(1) and (2)			
Mean	37.5	49.4	48.4	44.1	44.8
		(3) and (4)			
O	35.7	47.2	42.9	38.4	41.0
C	39.2	51.5	53.9	49.9	48.6
		(5) and (6)			(±0.84)
O	37.6	48.7	49.7	42.9	44.7
S	37.3	50.0	47.1	45.4	45.0

Mean D.M. %: 80.6

(1) (±0.90) For use in comparisons involving N4 - N2 or N3 - N1
(2) (±1.06) For use in all other comparisons
(3) (±1.28) For use in horizontal and interaction comparisons
(4) (±1.68) For use in all other horizontal and interaction comparisons
(5) (±1.28) For use in horizontal and interaction comparisons involving N2 - N2 or N3 - N1
(6) (±1.60) For use in all other comparisons

https://doi.org/10.23637/ERADOC-1-157

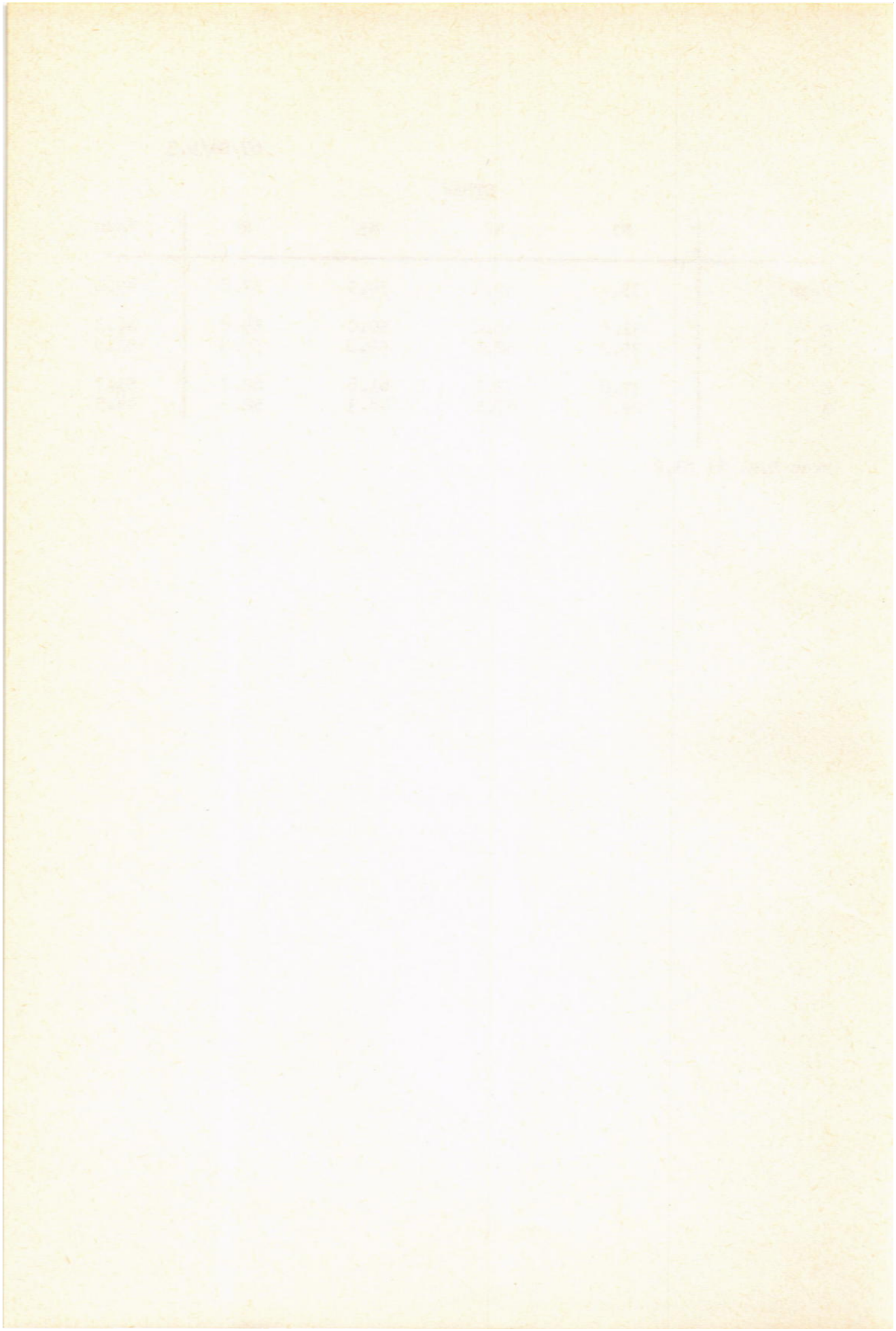
67/Da/9.3

STRAW

	N1	N2	N3	N4	Mean
Mean	33.4	50.3	54.9	57.8	49.1
O	31.6	47.8	50.0	55.8	46.3
C	35.2	52.8	59.8	59.8	51.9
O	37.6	53.1	61.6	62.7	53.7
S	29.2	47.5	48.3	52.9	44.5

Mean D.M. %: 83.2

https://doi.org/10.23637/ERADOC-1-157



SPRING WHEAT

(WW 201)

Effect of sowing date and time of nitrogen application on the incidence of take-all (Ophiobolus graminis) - Woburn Road Piece 1967.

Design: 3 randomised blocks of 3 plots, split into 2.

Area of each sub plot: 0.0207. Area harvested: 0.0106.

Treatments: All combinations of:-
Whole plots: 1. Sowing dates: Feb 15 (F), Mar 14 (M), Apr 17 (A). Seed drilled at 175 lb F plots, 170 lb M plots, and 185 lb A plots.
Sub plots: 2. Time of application of N: 0.8 cwt N at sowing (T1), 0.4 cwt N at sowing plus 0.4 cwt N on May 12 (T2), all N as 'Nitro-Chalk'.

Basal applications: 400 lb (0:14:28) combine drilled. Weedkiller: Ioxynil/mecoprop (Actril C at 5 pints in 35 gals).

Cultivations, etc.: Ploughed: Nov 8, 1966. Seed drilled and 'Nitro-Chalk' applied to F plots: Feb 15, 1967 - M plots: Mar 14 - A plots: Apr 17. Top dressing of 'Nitro-Chalk' applied to appropriate plots: May 12. Weedkiller applied: May 18. Combine harvested: Aug 22. Variety: Kloka. Previous crops: Barley 1965, 1966.

NOTE: Plant samples were taken during the growing season for incidence of take-all.

Standard errors per plot. Grain:
Whole plot: 1.27 or 5.6% (4 d.f.)
Sub plot: 2.24 or 9.8% (6 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Da/10.2

SUMMARY OF RESULTS

GRAIN

	F	M	A	Mean
		(1) and (2)		(±0.75)
T1	25.2	22.7	19.4	22.4
T2	27.3	22.8	19.7	23.3
Mean (±0.73)	26.2	22.7	19.6	22.8

(1) (±1.17) For use in horizontal and diagonal comparisons
(2) (±1.29) For use in vertical and interaction comparisons

https://doi.org/10.23637/ERADOC-1-157

WINTER WHEAT

(BG 1)

Sowing dates and bulb fly - Stackyard 1967, the third year.

Design: 3 randomised blocks of 3 plots, split into 2 for covering to prevent egg-laying (unrandomised).

Area of each sub plot: 0.0096. Area harvested: 0.0064.

Treatments: All combinations of:-
Whole plots: 1. Sowing dates: Oct 28 (E), Nov 29 (M), Dec 21 (L). (Seed rate 180 lb.)
Sub plots: 2. Not covered (O), covered with polythene sheet to prevent egg-laying, late June to mid-September 1966 (C).

Basal applications: 280 lb (6:15:15) combine drilled, 0.84 cwt N as 'Nitro-Chalk' in spring. Weedkillers: Diquat (Reglone at 4 pints in 40 gals), ioxynil/mecoprop (Actril C at 6 pints in 20 gals). Seed dressed with organo-mercury fungicide only.

Cultivations, etc.: Rotary cultivated twice: Mar 30 and May 19, 1966. Deep-tine cultivated: June 9. Rotary cultivated: July 1. Diquat applied: Oct 26. 'Nitro-Chalk' applied: Apr 18, 1967. Ioxynil/mecoprop applied: May 9. Combine harvested: Aug 30. Variety: Cappelle. Previous crops: Winter wheat 1965, fallow 1966.

NOTES: (1) For the previous year's results see 'Results' 65/Da/5 and 66/Da/3.
(2) Samples were taken from late February until mid-May to estimate numbers of plants, shoots and larvae and damaged plants and shoots. Samples were taken just before harvest to estimate ear number and grain weight.
(3) It was intended to sow four blocks, but on one the soil was too wet.

Standard errors per plot. Grain:
Whole plot: 6.46 or 15.9% (4 d.f.)
Sub plot: 5.57 or 13.8% (6 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

GRAIN

	E	M	L	Mean
		(1) and (2)		
O	49.6	39.5	27.4	38.8
C	50.6	42.8	33.5	42.3
Mean (±3.73)	50.1	41.1	30.4	40.6

(1) (±5.27) For use in horizontal comparisons only
(2) (±3.22) For use in interaction comparisons only

Mean D.M. %: 84.1

67/Db/1.1

BARLEY

(RB 101)

Spun and drilled seed and cultivations - Great Knott III 1967.

Design (each sowing method): 2 randomised blocks of 4 plots, with plots split into 4.

Area of each sub plot: 0.0135. Area harvested: 0.0096.

Treatments:

Spun seed: All combinations of:-
- Whole plot: 1. Seed rate: 140 lb (M), 200 lb (H).
- Sub plot: 2. Seedbed cultivations: Plough, spring-tine cultivate, harrow, sow, harrow (C1). Plough, spring-tine cultivate, sow, spring-tine cultivate, harrow (C2 - duplicate treatments). Plough, spring-tine cultivate twice, sow, harrow (C3).

Drilled seed: All combinations of:-
- Whole plot: 1. Seed rate: 112 lb (L), 140 lb (M),
- Sub plot: 2. Seedbed cultivations: C1, C3 above (2 plots per block of each).

Basal applications: 340 lb (25:10:10). Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 35 gals).

Cultivations, etc.: Ploughed: Oct 21, 1966. Basal NPK compound applied: Mar 14, 1967. Seed sown: Mar 15. Sprayed: May 11. Combine harvested: Aug 21. Variety: Maris Badger. Previous crops: Spring beans 1965, spring wheat 1966.

Standard errors per plot (pooled). Grain:
- Whole plot: 1.45 or 3.5% (6 d.f.)
- Sub plot: 2.39 or 5.8% (40 d.f.)

SUMMARY OF RESULTS

GRAIN

SPUN SEED

	C1	C2	C3	Mean
	(1) and (2)	(3) and (4)	(1) and (2)	(±0.72)
M	39.8	42.6	42.2	41.8
H	39.3	41.3	41.1	40.8
Mean	39.5 (±0.84)	42.0 (±0.60)	41.6 (±0.84)	41.3

(1) (±1.26) (3) (±0.94) For use in vertical and diagonal comparisons only.
(2) (±1.19) (4) (±0.84) For use in horizontal and interaction comparisons only.

DRILLED SEED

	C1	C3	Mean
	(1) and (2)		(±0.72)
M	40.8	40.7	40.7
H	42.4	41.4	41.9
Mean (±0.60)	41.6	41.0	41.3

(1) (±0.94) For use in vertical and diagonal comparisons only
(2) (±0.84) For use in horizontal and interaction comparisons only

Pooled mean: 41.3
Pooled D.M. %: 85.6

https://doi.org/10.23637/ERADOC-1-157

67/Db/2.1

BARLEY

(RB 201)

Comparison of combines - Great Knott III 1967.

Design: 8 randomised blocks of 6 plots, with N rates applied to blocks. For plot length harvested plots are either whole, halved or quartered.

Area of each plot:		Area harvested:
Whole plots:		
Small combine:	0.0110	0.0043
Large combine:	0.0221	0.0086
Half plots:		
Small combine:	0.0055	0.0021
Large combine:	0.0110	0.0043
Quarter plots:		
Small combine:	0.0028	0.0011
Large combine:	0.0055	0.0021

Treatments: All combinations of:-
To blocks: 1. Nitrogen: 0.4 (N1), 0.8 (N2) cwt N as basal compound plus 'Nitro-Chalk'.
To plots: 2. Combine harvesters: PAM 150S cutting 8 rows (4'8''), Clayson M103 cutting 16 rows (9' 4''), between blank rows.
3. Length harvested: 40 feet (whole plot), 2 x 20 feet (half plots), 4 x 10 feet (quarter plots).

Basal applications: 300 lb (15:15:15) combine drilled. Weedkiller: Mecoprop/2,4-D (Methoxone Extra at 6 pints in 35 gals).

Cultivations, etc.: Ploughed: Oct 21 - Nov 1, 1966. Seed drilled at 140 lb: Mar 13, 1967. 'Nitro-Chalk' applied: Mar 22. Sprayed: May 11. Combine harvested: Aug 22. Variety: Maris Badger. Previous crops: Spring beans 1965, spring wheat 1966.

Standard errors per plot. Grain:

Whole plots:		
Blocks:	1.09 or 2.5%	(3 d.f.)
Plots:	2.88 or 6.7%	(6 d.f.)
Half plots:		
Blocks:	1.44 or 3.3%	(3 d.f.)
Plots:	2.08 or 4.8%	(6 d.f.)
Quarter plots:		
Blocks:	1.55 or 3.6%	(3 d.f.)
Plots:	2.06 or 4.8%	(6 d.f.)

SUMMARY OF RESULTS

GRAIN

	L	S	Mean
WHOLE PLOT			
	(1) and (2)		(±0.55)
N1	39.1	39.4	39.3
N2	47.2	47.0	47.1
Mean (±1.02)	43.2	43.2	43.2

(1) (±1.16) For use in vertical and diagonal comparisons
(2) (±1.44) For use in horizontal and interaction comparisons

HALF PLOT			
	(1) and (2)		(±0.72)
N1	41.1	39.5	40.3
N2	47.9	44.7	46.3
Mean (±0.74)	44.5	42.1	43.3

(1) (±1.03) For use in vertical and diagonal comparisons
(2) (±1.04) For use in horizontal and interaction comparisons

Mean D.M. %: 86.3

https://doi.org/10.23637/ERADOC-1-157

67/Db/2.3

GRAIN

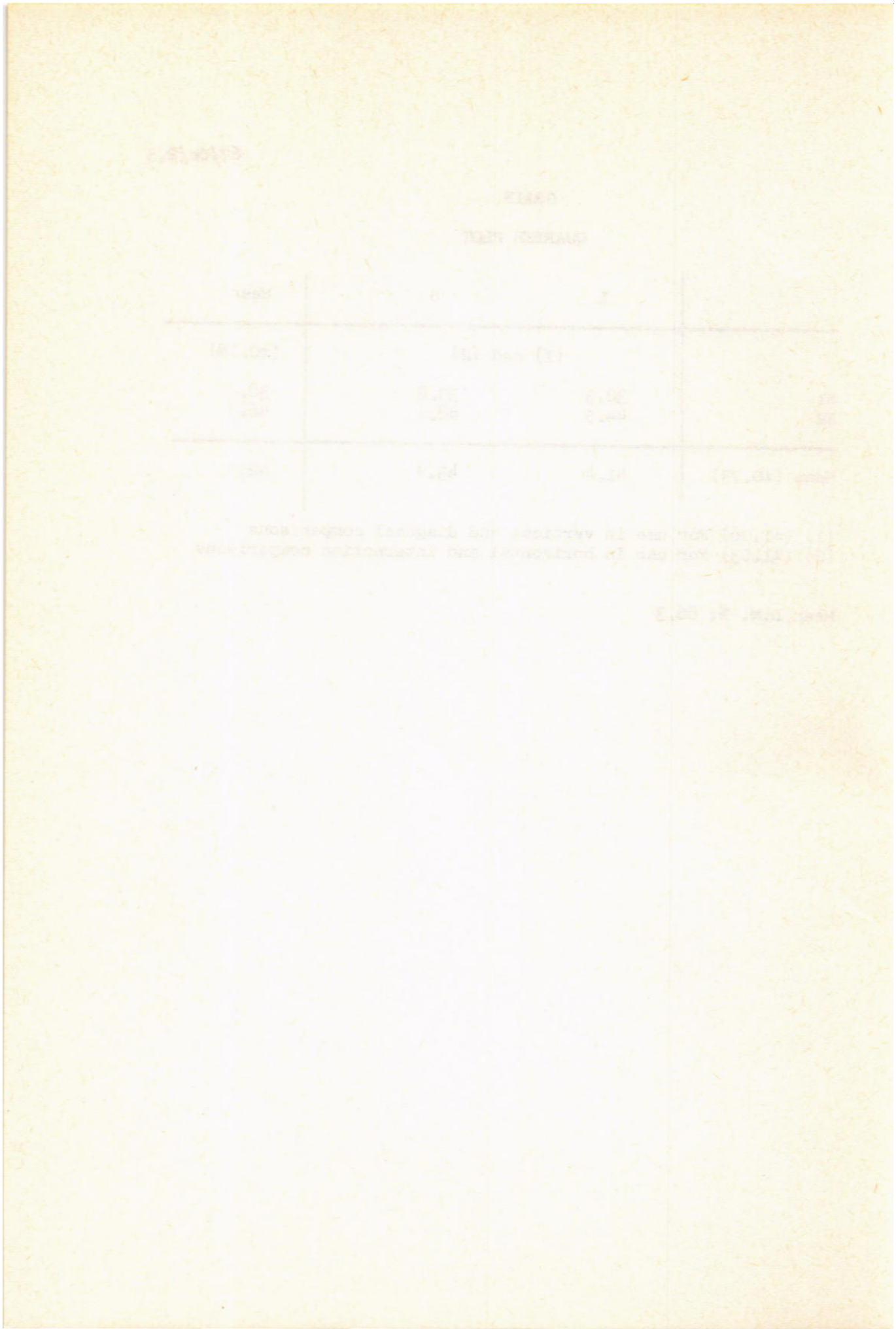
QUARTER PLOT

	L	S	Mean
	(1) and (2)		(±0.78)
N1	38.3	39.2	38.8
N2	44.5	48.1	46.3
Mean (±0.73)	41.4	43.7	42.5

(1) (±1.06) For use in vertical and diagonal comparisons
(2) (±1.03) For use in horizontal and interaction comparisons

Mean D.M. %: 86.3

https://doi.org/10.23637/ERADOC-1-157



67/Do/3

BARLEY

(RB 301)

Spraying and wheelmarks - Pastures 1967.

Design: 4 randomised blocks of 4 plots.

Area of each plot: 0.0331. Area harvested: 0.0138.

Treatments: All combinations of:-

1. Weedkiller spray: None (O), sprayed with mecoprop/2,4-D (Methoxone Extra at 6 pints in 30 gals) (S).
2. Wheel damage: None (O), tractor wheel damage in spraying weedkiller, i.e. one passage of a wheeled tractor per harvested width (10 ft) (W).

Basal applications: 340 lb compound (25:10:10) combine drilled.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Ground chalk applied at 50 cwt: Jan 6. Ploughed second time: Jan 11. Seed drilled at 140 lb: Mar 17. Weedkiller applied to S plots and wheelmarks to W plots: May 18. Combine harvested: Aug 22. Variety: Maris Badger. Previous crops: Spring wheat 1965, fallow 1966.

Standard error per plot.
Grain: 1.27 or 3.5% (9 d.f.)

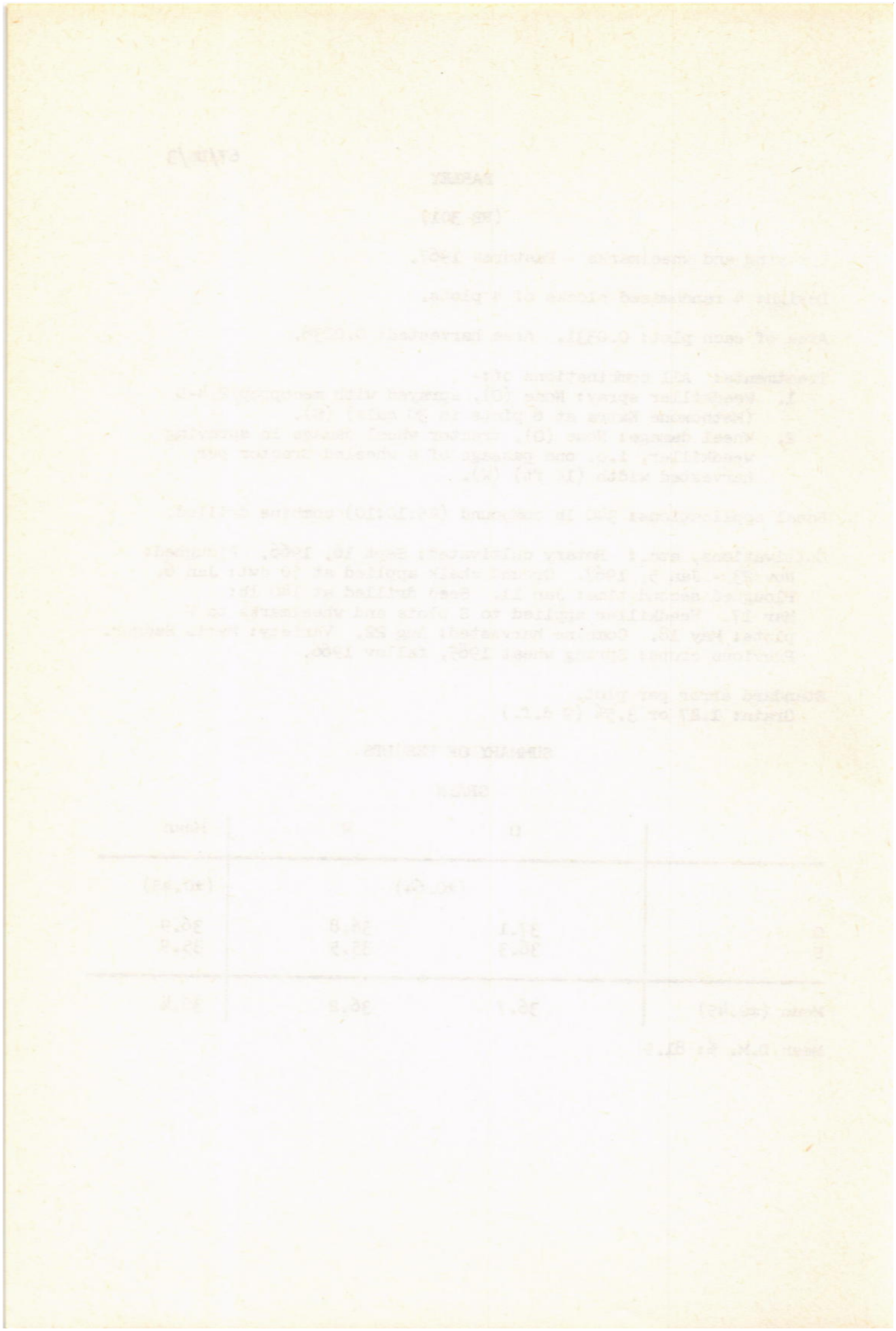
SUMMARY OF RESULTS

GRAIN

	O	W	Mean
	(±0.64)		(±0.45)
O	37.1	36.8	36.9
S	36.3	35.5	35.9
Mean (±0.45)	36.7	36.2	36.4

Mean D.M. %: 81.9

https://doi.org/10.23637/ERADOC-1-157



https://doi.org/10.23637/ERADOC-1-157

67/Dc/1.1

SPRING BEANS

(RBe 101)

Rhizobium strains - Long Hoos III 1967.

Design: 4 randomised blocks of 4 plots.

Area of each plot: 0.0202. Area harvested: 0.0127.

Treatments: Seed uninoculated (R0), inoculated with Rhizobium strain 1027 (R1), strain CZS (R2), strain 1007 (R3).

Basal applications: 360 lb (0:14:28) placement drilled. Weedkiller: Simazine at 1 lb a.i. in 32 gals. Insecticide: Demeton-s-methyl on two occasions at 3 oz in 37 gals, and at 3 oz in 3 gals by fixed-wing aircraft.

Cultivations, etc.: Ploughed: Sept 22, 1966. Ground chalk applied at 50 cwt: Jan 7, 1967. Ploughed second time: Jan 13. Seed drilled at 200 lb: Mar 16. Simazine applied: Mar 18. Insecticide applied: June 14 and July 11. Combine harvested: Sept 1. Variety: Tarvin. Previous crops: Potatoes 1965, spring wheat 1966.

NOTE: Counts of Rhizobium leguminosarum in the soil were made in March before sowing and from the rhizosphere and soil of selected plots in May, using hairy vetch (Vicia hirsuta). Counts of plants were taken in August.

Standard error per plot.
Grain: 1.43 or 4.2% (9 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Dc/1.2

SUMMARY OF RESULTS

GRAIN

R0	R1	R2	R3	Mean
34.2	34.9	33.9	34.7	34.4
		(±0.71)		

Mean D.M. %: 79.2

https://doi.org/10.23637/ERADOC-1-157

67/Dd/1.1

POTATOES

(RP 2/1)

Effect of gaps - Pastures 1967.

Design: 5 randomised blocks of 2 plots, split into 6.

Area of each sub plot: 0.0071. Area harvested: 0.0033.

Treatments: All combinations of:-
Whole plots: 1. Time of gapping: At emergence on June 12 (E), at flowering on July 12 (F).
Sub plots: 2. Amount of gapping: Normal plant population (G0), 4 (G4), 8 (G8), 12 (G12), 16 (G16), 24 (G24), per cent of plants removed.

Basal applications: 10 cwt (13:13:20). Weedkiller: Linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals. Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal compound fertiliser applied: Mar 30. Rotary cultivated second time: Apr 19. Potatoes planted: Apr 20. Weedkiller applied: May 17. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 7. Lifted: Sept 20. Variety: Majestic. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard errors per plot. Total tubers:
Whole plot: 0.413 or 2.0% (4 d.f.)
Sub plot: 1.170 or 5.6% (40 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Dd/1.2

SUMMARY OF RESULTS

	G0	G4	G8	G12	G16	G24	Mean
			TOTAL TUBERS				
			(1) and (2)				(±0.234)
E		21.93	21.59	21.20	21.90	20.28	21.38
F		21.03	20.71	20.44	19.54	18.40	20.02
Mean (±0.370)	22.38	21.48	21.15	20.82	20.72	19.34	20.98*

(1) (±0.512) For use in vertical and diagonal comparisons
(2) (±0.523) For use in horizontal and interaction comparisons

% WARE

E		97.2	97.7	97.4	97.9	98.0	97.6
F		97.2	97.7	97.5	97.7	98.1	97.6
Mean	97.5	97.2	97.7	97.5	97.8	98.1	97.6*

* General mean

https://doi.org/10.23637/ERADOC-1-157

POTATOES

(RP 3/1)

Effects of skin-spot (Oospora pustulans) - Pastures 1967.

Design: 6 blocks of 2 plots, split into 4. 3 blocks with weedkiller, 3 without (not randomised).

Area of each sub-plot: 0.0033. Area harvested: 0.0033.

Treatments: All combinations of:-

Columns of 3 blocks:
1. Weedkiller: None, with inter-row cultivations (O), sprayed with linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals, no inter-row cultivation (W).

Whole plots:
2. Varieties: King Edward (E), Majestic (M).

Sub plots:
3. Levels of seed infection (Oospora pustulans): Clean (A), moderately infected (B), severely infected (C), unselected stock (D).

Basal applications: 10 cwt (13:13:20). Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal compound fertiliser applied: Mar 30. Rotary cultivated second time, potatoes planted: Apr 19. Weedkiller applied: May 17. 'O' blocks grubbed and mechanically weeded: May 19. 'O' blocks grubbed: June 15. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 20. Haulm destroyed mechanically: Sept 25. Lifted: Sept 28 and Oct 5. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard errors per plot. Total tubers:
Whole plot: 0.855 or 4.1% (4 d.f.)
1/4 plot: 1.098 or 5.2% (24 d.f.)

67/Dd/2.2

SUMMARY OF RESULTS

TOTAL TUBERS

	E	M	A	B	C	D	Mean
	(±0.494)*		(±0.448)*				
O	21.18	20.89	20.92	21.94	20.66	20.63	21.04
W	21.24	20.97	21.40	21.93	19.49	21.61	21.11
			(1) and (2)				(±0.349)
	E		21.02	21.91	20.22	21.70	21.21
	M		21.30	21.95	19.93	20.54	20.93
Mean (±0.317)			21.16	21.93	20.07	21.12	21.07

(1) (±0.522) For use in vertical and diagonal comparisons
(2) (±0.448) For use in horizontal and interaction comparisons

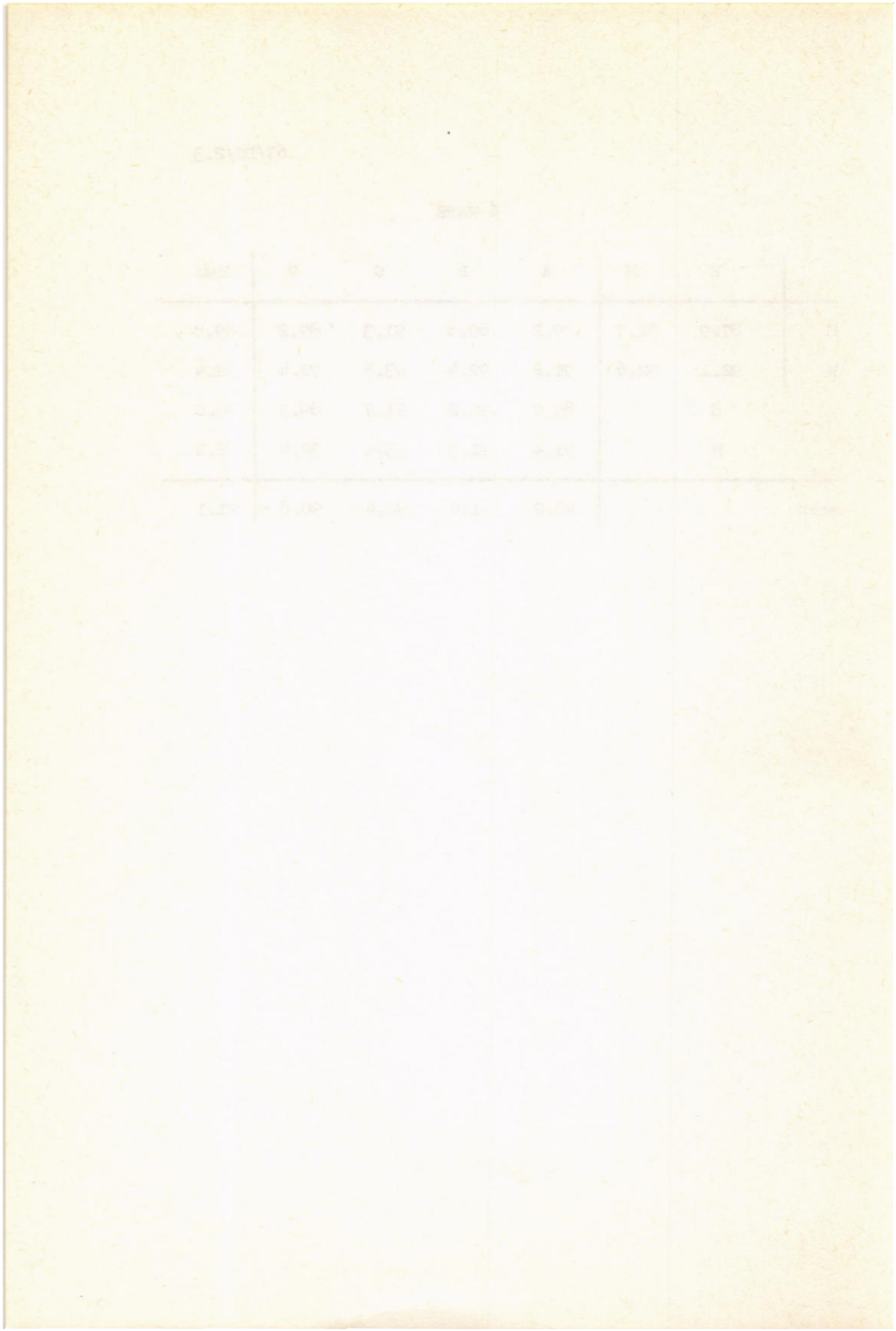
https://doi.org/10.23637/ERADOC-1-157

67/Dd/2.3

% WARE

	E	M	A	B	C	D	Mean
O	87.9	91.7	89.2	89.6	91.3	89.2	89.8
W	92.1	92.6	91.2	92.4	93.5	92.4	92.4
	E		89.0	90.2	91.7	89.3	90.0
	M		91.4	91.8	93.1	92.4	92.2
Mean			90.2	91.0	92.4	90.8	91.1

https://doi.org/10.23637/ERADOC-1-157



67/Dd/3.1

POTATOES

(RP 4/1)

Effects of 'dead eyes' (Oospora pustulans) - Pastures 1967.

Design: 6 blocks of 4 plots. 3 blocks with weedkiller, 3 without (not randomised).

Area of each plot: 0.0071. Area harvested: 0.0033.

Treatments: All combinations of:-

Columns of 3 blocks: 1. Weedkiller: None, with inter-row cultivations (O), sprayed with linuron at 0.75 and paraquat at 0.5 lb ion in 37 gals, no inter-row cultivation (W).

Plots: 2. Levels of seed infection (Oospora pustulans): Clean (A), moderately infected (B), severely infected (C), unselected stock (D).

Basal applications: 10 cwt (13:13:20). Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal compound fertiliser applied: Mar 30. Rotary cultivated second time, potatoes planted: Apr 19. Weedkiller applied: May 17. 'O' blocks grubbed and mechanically weeded: May 19. 'O' blocks grubbed: June 14. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 20. Haulm destroyed mechanically: Sept 25. Lifted: Sept 28 and Oct 5. Variety: King Edward. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard error per plot.
Total tubers: 1.652 or 9.0% (12 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

	A	B	C	D	Mean
	TOTAL TUBERS (±0.954)*				
O	20.52	18.67	10.70	18.76	17.16
W	22.93	21.58	11.32	22.72	19.64
Mean (±0.675)	21.73	20.13	11.01	20.74	18.40
	% WARE				
O	87.2	90.6	90.9	87.0	89.0
W	90.8	91.3	92.2	90.3	91.2
Mean	89.0	91.0	91.5	88.7	90.1

* For use in horizontal and interaction comparisons only

https://doi.org/10.23637/ERADOC-1-157

POTATOES

(RP 5/1)

Effects of stem-canker (Rhizoctonia solani) - Pastures 1967.

Design: 6 randomised blocks of 2 plots, split into 4. 3 blocks with weedkiller, 3 without (not randomised).

Area of each sub plot: 0.0036. Area harvested: 0.0033.

Treatments: All combinations of:-

Columns of 3 blocks: 1. Weedkiller: None, with inter-row cultivation (O), sprayed with linuron at 0.75 lb and paraquat at 0.5 lb ion in 37 gals, no inter-row cultivation (W).

Plots: 2. Varieties: King Edward (E), Majestic (M).

Sub plots: 3. Levels of seed infection: Clean (A), moderately infected (B), severely infected (C), unselected stock (D).

Basal applications: 10 cwt (13:13:20). Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal compound fertiliser applied: Mar 30. Rotary cultivated, potatoes planted: Apr 19. Weedkiller applied: May 17. 'O' blocks grubbed and mechanically weeded: May 19. 'O' blocks grubbed: June 14. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 20. Haulm destroyed mechanically: Sept 25. Lifted: Sept 28 and Oct 5. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard errors per plot. Total tubers:

Whole plots: 0.812 or 3.8% (4 d.f,)

Sub plots: 1.866 or 8.8% (24 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

	E	M	A	B	C	D	Mean
			TOTAL TUBERS				
	(±0.469)*			(±0.762)*			
O	19.36	20.63	20.35	21.24	18.30	20.09	20.00
W	22.56	22.73	23.75	22.01	22.40	22.44	22.65
				(1) and (2)			(±0.332)
	E		21.48	21.78	19.90	20.70	20.96
	M		22.62	21.47	20.80	21.82	21.68
Mean (±0.539)			22.05	21.62	20.35	21.26	21.32

* For use in horizontal and interaction comparisons only

(1) (±0.738) For use in vertical and diagonal comparisons
(2) (±0.762) For use in horizontal and interaction comparisons

			% WARE				
O	82.4	90.0	85.2	87.6	84.1	87.9	86.2
W	84.9	90.9	88.2	88.1	87.0	88.3	87.9
	E		84.3	84.9	80.5	84.9	83.6
	M		89.1	90.8	90.5	91.3	90.5
Mean			86.7	87.9	85.5	88.1	87.0

https://doi.org/10.23637/ERADOC-1-157

67/Dd/5.1

POTATOES

(RP 6/1)

Effects of gangrene (Phoma spp.) - Pastures 1967.

Design: 6 blocks of 2 plots, split into 4. 3 blocks with weedkiller, 3 without (not randomised).

Area of each sub plot: 0.0071. Area harvested: 0.0033.

Treatments: All combinations of:-

Columns of 3 blocks: 1. Weedkiller: None, with inter-row cultivations (O), sprayed with linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals, no inter-row cultivation (W).

Plots: 2. Varieties: King Edward (E) Majestic (M).

Sub plots: 3. Levels of seed infection (Phoma spp.): Clean (A), moderately infected (B), severely infected (C), unselected stock (D).

Basal applications: 10 cwt (13:13:20). Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.:- Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal compound fertiliser applied: Mar 30. Rotary cultivated second time, potatoes planted: Apr 19. Weedkiller applied: May 17. 'O' blocks grubbed and mechanically weeded: May 19. 'O' blocks grubbed: June 14. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 20. Haulm destroyed mechanically: Sept 28. Lifted: Oct 10. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard errors per plot. Total tubers:

Whole plot: 0.557 or 2.7% (4 d.f.)

Sub plot: 1.070 or 5.2% (24 d.f.)

67/Dd/5.2

SUMMARY OF RESULTS

	E	M	A	B	C	D	Mean
			TOTAL TUBERS				
	(±0.321)*			(±0.437)*			
O	19.04	20.94	22.94	20.01	16.96	20.06	19.99
W	20.20	22.08	23.63	21.68	18.48	20.76	21.14
				(1) and (2)			(±0.227)
	E		22.58	19.27	17.07	19.55	19.62
	M		23.99	22.41	18.36	21.27	21.51
Mean (±0.309)			23.29	20.84	17.72	20.41	20.56

* For use in horizontal and interaction comparisons only
(1) (±0.441) For use in vertical and diagonal comparsons
(2) (±0.437) For use in horizontal and interaction comparisons

			% WARE				
O	83.7	91.7	89.6	86.2	87.1	87.8	87.7
W	82.6	92.2	88.3	86.0	87.8	87.4	87.4
	E		84.3	81.4	83.9	82.9	83.1
	M		93.6	90.8	91.0	92.4	92.0
Mean			88.9	86.1	87.5	87.6	87.5

https://doi.org/10.23637/ERADOC-1-157

67/Dd/6.1

POTATOES

(RP 7/1)

Effects of stem-canker (Rhizoctonia solani) on stored seed - Pastures 1967.

Design: 6 randomised blocks of 8 plots. 3 blocks with weedkiller, 3 without (not randomised).

Area of each sub plot: 0.0036. Area harvested: 0.0056.

Treatments: All combinations of:-

Columns of 3 blocks:

1. Weedkiller: None, with inter-row cultivations (WO), sprayed with linuron at 0.75 lb and paraquat at 0.5 lb ion in 37 gals, no inter-row cultivations (WW).

Plots:

2. Varieties: King Edward (E), Pentland Dell (P).
3. Seed infection: None (O), infected with stem-canker (Rhizoctonia solani) (R).
4. Seed storage: Stored dry (DR), stored damp (DA).

Basal applications: 10 cwt (13:13:20). Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal compound fertiliser applied: Mar 30. Rotary cultivated, potatoes planted: Apr 19. Weedkiller applied: May 17. WO plots grubbed and mechanically weeded: May 19. WO plots grubbed: June 14. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 20. Haulm destroyed mechanically: Sept 28. Lifted: Sept 28 and Oct 4. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard error per plot.
Total tubers: 1.178 or 10.4% (28 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

TOTAL TUBERS

	WO	WW	O	R	DR	DA	Mean
	(±0.340)*		(±0.340)		(±0.340)		(±0.240)
E	12.10	12.67	12.60	12.17	12.39	12.37	12.38
P	9.47	10.89	10.37	9.98	10.12	10.24	10.18
Mean	10.78	11.78	11.48 (±0.240)	11.08	11.25 (±0.240)	11.31	11.28

	WO O	WO R	WW O	WW R
	(±0.481)*			
E	11.84	12.35	13.35	11.99
P	9.37	9.56	11.37	10.41

	WO DR	WO DA	WW DR	WW DA
	(±0.481)*			
E	11.98	12.22	12.81	12.53
P	9.40	9.53	10.84	10.95

	O DR	O DA	R DR	R DA
	(±0.481)*			
E	12.66	12.53	12.12	12.22
P	10.27	10.48	9.97	10.00

* For use in comparisons within the same weedkiller treatment

https://doi.org/10.23637/ERADOC-1-157

67/Dd/6.3

% WARE

	WO	WW	O	R	DR	DA	Mean
E	86.1	87.0	87.6	85.6	85.7	87.5	86.6
P	94.8	94.8	94.6	95.0	94.4	95.2	94.8
Mean	90.5	90.9	91.1	90.3	90.0	91.3	90.7

	WO O	WO R	WW O	WW R
E	86.0	86.2	89.1	84.9
P	94.5	95.1	94.7	94.8

	WO DR	WO DA	WW DR	WW DA
E	85.1	87.2	86.3	87.8
P	94.5	95.1	94.2	95.3

	O DR	O DA	R DR	R DA
E	85.8	89.3	85.5	85.6
P	94.1	95.1	94.6	95.3

https://doi.org/10.23637/ERADOC-1-157

67/Dd/7.1

POTATOES

(RP 8/1)

Oospora*-free seed - Pastures 1967.

Design: 6 blocks of 3 plots.

Area of each plot: 0.0071. Area harvested: 0.0031.

Treatments: Oospora-free seed (F), Oospora-free seed re-infected with Oospora (R), normal stock seed (N).

* Oospora pustulans - skinspot.

Basal applications: 10 cwt (13:13:20). Weedkiller: Linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals. Fungicide: Mancozeb at 1.2 lb in 30 gals on four occasions.

Cultivations, etc.:- Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal NPK compound applied: Mar 30. Rotary cultivated second time, potatoes planted: Apr 24. Weedkiller applied: May 18. Fungicide applied: June 30, July 21, Aug 3, Aug 24. Sprayed with undiluted BOV at 15 gals: Sept 20. Haulm destroyed mechanically, potatoes lifted: Sept 28. Variety: King Edward. Previous crops: Spring wheat and barley 1965, fallow 1966.

Standard error per plot:
Total tubers: 1.642 or 6.9% (10 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Dd/7.2

SUMMARY OF RESULTS

F	R	N	Mean
	TOTAL TUBERS		
	(±0.670)		
24.74	22.80	23.78	23.77
	% WARE		
78.7	87.6	86.4	84.2

https://doi.org/10.23637/ERADOC-1-157

67/Dd/8.1

POTATOES

(RP 9/1)

Blight (Phytophthora infestans) and aphid attack - Pastures 1967.

Design: 4 blocks of 8 plots.

Area of each plot: 0.0283. Area harvested: 0.0071.

Treatments: All combinations of:-

1. Time of application of aphicide: None (O), 1.5 lb phorate applied with seed (E), sprayed with demeton-s-methyl* in July (L), 1.5 lb phorate applied with seed, sprayed with demeton-s-methyl* in July (EL).
2. Fungicide: None (O), sprayed with mancozeb at 1.2 lb in 30 gals (F).

* At 3 oz in 30 gals.

Basal applications: 10 cwt (13:13:20). Weedkiller: Linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ploughed: Nov 23 - Jan 5, 1967. Basal NPK compound applied: part, Mar 3, part, Apr 17. Rotary cultivated second time, potatoes planted: Apr 18. Weedkiller applied: May 16. F plots sprayed with fungicide: June 30, July 21, Aug 3 and Aug 24. L and EL plots sprayed with demeton-s-methyl: July 21. Sprayed with undiluted BOV at 15 gals: Sept 20. Lifted: Oct 4. Variety: King Edward. Previous crops: Barley 1965, fallow 1966.

NOTE: Samples were taken throughout the season for assessment of blight (Phytophthora infestans) and of bulking.

Standard error per plot.
Total tubers: 1.250 or 5.8% (21 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Dd/8.2

SUMMARY OF RESULTS

	O	E	L	EL	Mean
		TOTAL TUBERS			
		(±0.625)			(±0.313)
O	19.78	20.11	20.02	19.57	19.87
F	23.99	23.71	22.63	23.32	23.41
Mean (±0.442)	21.88	21.91	21.32	21.45	21.64
		% WARE			
O	92.6	92.1	92.8	91.8	92.3
F	93.2	93.4	92.4	93.2	93.0
Mean	92.9	92.8	92.6	92.5	92.7

https://doi.org/10.23637/ERADOC-1-157

POTATOES

(RP 10/1 and WP 101)

Chitting and scab - Rothamsted (R) Pastures and Woburn (W) Great Hill Bottom I, 1967.

Design: 4 randomised blocks of 3 plots.

Area of each plot: 0.0150. Area harvested: 0.0007.

Treatments:
Non-chitted seed planted Apr 20 - 21 (OE), May 18 (OL), chitted seed planted Apr 20 - 21 (CE).

Basal applications: 10 cwt (13:13:20). Weedkiller: Linuron at 0.75 lb plus paraquat at 0.5 lb in 37 gals. Fungicides:- Pastures (R): Mancozeb at 1.2 lb in 30 gals. Great Hill (W): Fentin acetate at 4.2 oz plus maneb at 1.4 lb in 30 gals on three occasions, and mancozeb at 1.2 lb in 30 gals.

Cultivations, etc.:
Pastures (R): Rotary cultivated: Sept 16, 1966. Ground chalk applied at 50 cwt: Jan 6, 1967. Ploughed: Jan 11. Basal NPK compound applied: Apr 4. Plots rotary cultivated, potatoes machine planted on OE and CE plots: Apr 20. Weedkiller applied, potatoes dibbled in on OL plots: May 18. Fungicide applied: Aug 3. Sprayed with undiluted BOV at 15 gals: Aug 23. Lifted: Aug 29. Variety: Majestic. Previous crops: Spring wheat 1965, fallow 1966.
Great Hill Bottom I (W): Ploughed: Aug 5, 1966. Ground chalk applied at 40 cwt: Jan 9, 1967. Deep-tine cultivated: Mar 20. Basal NPK compound applied: Mar 20. Rotary cultivated: Apr 20. Potatoes machine planted on OE and CE plots: Apr 21. Weedkiller applied: May 12. Potatoes dibbled in on OL plots: May 18. Sprayed with fentin acetate plus maneb: July 3, July 26, Aug 21. Sprayed with mancozeb: Aug 8. Lifted: Aug 25. Variety: Majestic. Previous crops: Sugar beet 1965, fallow 1966.

NOTE: Samples were taken in June and July for estimates of the incidence of scab and for the degree of tuberisation.

Standard errors per plot. Total tubers:
Pastures (R): 1.117 or 6.4% (6 d.f.)
Great Hill Bottom I (W): 0.771 or 5.8% (6 d.f.)

SUMMARY OF RESULTS

TOTAL TUBERS

OE	OL	CE	Mean
	PASTURES (R)		
	(±0.559)		
17.93	15.85	18.64	17.47
	GREAT HILL BOTTOM I (W)		
	(±0.386)		
13.49	11.36	15.12	13.32

67/Dd/10.1

POTATOES

(RP 11/1)

Varieties, N and scab - Pastures 1967.

Design: 4 blocks of 3 plots, split for N.

Area of each sub plot: 0.0120. Area harvested: 0.0028.

Treatments: All combinations of:-
Whole plots: 1. Varieties: Majestic (M), King Edward (E), Pentland Dell (D).
Sub plots: 2. N: None (N0), 1.0 (N1), 2.0 (N2) cwt N as 'Nitro-Chalk'.

Basal applications: 670 lb (0:14:28). Weedkiller: Linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals. Fungicide: Mancozeb at 1.2 lb in 30 gals on three occasions.

Cultivations, etc.: Rotary cultivated: Sept 16, 1966. Ground chalk applied at 50 cwt: Jan 6, 1967. Ploughed: Jan 11. Basal PK compound applied: Apr 4. 'Nitro-Chalk' applied: Apr 18. Plots rotary cultivated, potatoes machine planted: Apr 21. Weedkiller applied: May 18. Fungicide applied: June 29, July 21, Aug 4. Sprayed with undiluted BOV at 15 gals: Aug 23. Lifted: Sept 15. Previous crops: Spring wheat 1965, fallow 1966.

NOTE: Samples were taken during June and July for estimates of the incidence of scab and for the degree of tuberisation.

Standard errors per plot. Total tubers:
Whole plot: 1.195 or 6.9% (6 d.f.)
Sub plot: 1.219 or 7.1% (18 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

	N0	N1	N2	Mean
		TOTAL TUBERS		
		(1) and (2)		(±0.598)
M	15.61	19.48	20.97	18.69
E	14.90	17.80	19.51	17.40
D	12.25	16.59	17.94	15.59
Mean (±0.352)	14.25	17.96	19.47	17.23

(1) (±0.778) For use in vertical and diagonal comparisons
(2) (±0.610) For use in horizontal and interaction comparisons

		% WARE		
M	95.0	96.6	96.8	96.1
E	89.7	92.9	92.1	91.6
D	97.6	97.6	97.6	97.6
Mean	94.1	95.7	95.5	95.1

https://doi.org/10.23637/ERADOC-1-157

POTATOES

(RP 12a/1 and RP 12b/21)

Transmission of scab (Streptomyces scabies) - Fosters O & E VI and Highfield O & E III, 1967.

Design (each field): 4 blocks of 5 plots, split into 2.

Area of each sub plot: 0.0014. Area harvested: 0.0013.

Treatments: All combinations of:-
Whole plots: 1. Seed tuber infection (Streptomyces scabies): Severe (SV), moderate (MD), slight (SL), clean (CL), clean seed formalin dipped (FD).
Sub plots: 2. Chitting: None (O), seed chitted (C).

Basal applications: 10 cwt (13:13:20). Weedkiller: Linuron at 0.75 lb plus paraquat at 0.5 lb ion in 37 gals. Fungicide: Mancozeb at 1.2 lb in 30 gals on three occasions.

Cultivations, etc.: Ploughed: Sept 12, 1966. Basal NPK compound applied: Apr 5, 1967. Plots rotary cultivated, potatoes machine-planted: Apr 26. Weedkiller applied: May 17. Fungicide applied: June 30, July 21, Aug 3. Sprayed with undiluted BOV at 15 gals: Aug 23. Lifted: Sept 22. Variety: Majestic. Previous crops: Fosters - Clover 1965 and 1966, Highfield: Potatoes 1965, barley 1966.

NOTE: Samples were taken during June and July for estimates of the incidence of scab and for the degree of tuberisation.

Standard errors per plot. Total tubers:
Fosters O & E VI. Whole plot: 0.931 or 6.0% (12 d.f.)
Sub plot: 0.966 or 6.3% (15 d.f.)
Highfield O & E III. Whole plot: 1.125 or 7.0% (12 d.f.)
Sub plot: 1.639 or 10.1% (15 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

TOTAL TUBERS

	SV	MD	SL	CL	FD	Mean
			FOSTERS O & E VI			
			(1) and (2)			(±0.216)
O	14.42	16.59	15.00	16.17	15.67	15.57
C	13.92	17.17	15.25	15.25	14.58	15.23
Mean (±0.465)	14.17	16.88	15.13	15.71	15.13	15.40
			HIGHFIELD O & E III			
			(1) and (2)			(±0.366)
O	14.42	14.92	14.67	16.67	16.08	15.35
C	16.50	18.59	17.75	15.08	17.17	17.02
Mean (±0.563)	15.46	16.75	16.21	15.88	16.63	16.18

Foster O + E VI (1) (±0.577) For use in horizontal and diagonal comparisons
(2) (±0.483) For use in vertical and interaction comparisons

Highfield O & E III (1) (±0.808) For use in horizontal and diagonal comparisons
(2) (±0.819) For use in vertical and interaction comparisons

https://doi.org/10.23637/ERADOC-1-157

67/De/1.1

SUGAR BEET

Effect of soil compaction on growth of sugar beet, Saxmundham Grove Plot, 1967, the first year.

Design: 4 randomised blocks of 3 plots, split into 4.

Area of each sub-plot: 0.0145. Area harvested: 0.0015.

Treatments: All combinations of:-

Plots 1. Soil preparation: Soil worked down in winter and allowed to compact (A), soil worked down in spring and compressed (B), soil kept as open as possible when working seedbed (C).

Sub-plots 2. Fertilisers: 0.6 cwt (N1), 1.2 cwt (N2), 1.8 cwt (N3) 1.2 cwt N plus, 1.6 cwt P_2O_5 applied as triple superphosphate, half in winter, half in spring (N2P). All N applied in seedbed as 'Nitro-Chalk'.

Basal applications: 0.8 cwt P_2O_5, 1.0 cwt K_2O as triple superphosphate and muriate of potash. Insecticide: Demeton-s-methyl at 3 oz in 37 gals on 2 occasions.

Cultivations, etc.: Ploughed: Nov 29 - Dec 16, 1966. A plots rotary cultivated twice, half phosphate dressing applied to NP sub-plots: Feb 15, 1967. B and C plots worked 3 times with a heavy spring-tine cultivator: Mar 29. All plots harrowed four times with light drag-harrows (twice in each direction), basal PK, 'Nitro-Chalk' and second half phosphate dressing (NP sub-plots) applied, seed drilled at 7 lb. B plots compressed by rolling four times with Cambridge roller: Mar 30. Singled: May 17. Insecticide applied: June 12 and July 7. Lifted: Oct 4. Variety: Sharp's Klein E. Previous crops: Barley 1965 and 1966.

Standard errors per plot.

Roots (washed):	Whole plot:	1.083 or 7.0% (6 d.f.)
	Sub-plot:	2.053 or 13.3% (27 d.f.)
Total sugar:	Whole plot:	4.02 or 7.7% (6 d.f.)
	Sub-plot:	7.37 or 14.1% (27 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

	N1	N2	N3	N2P	Mean
		ROOTS (WASHED)			
		(1) and (2)			(±0.541)
A	10.66	14.98	17.18	15.20	14.50
B	13.86	14.76	17.79	14.87	15.32
C	13.79	17.03	16.03	19.27	16.53
Mean (±0.593)	12.77	15.59	17.00	16.45	15.45
		SUGAR %			
A	16.9	17.1	16.7	17.3	17.0
B	17.0	16.7	16.4	16.8	16.7
C	17.3	17.2	16.7	16.5	16.9
Mean	17.1	17.0	16.6	16.9	16.9

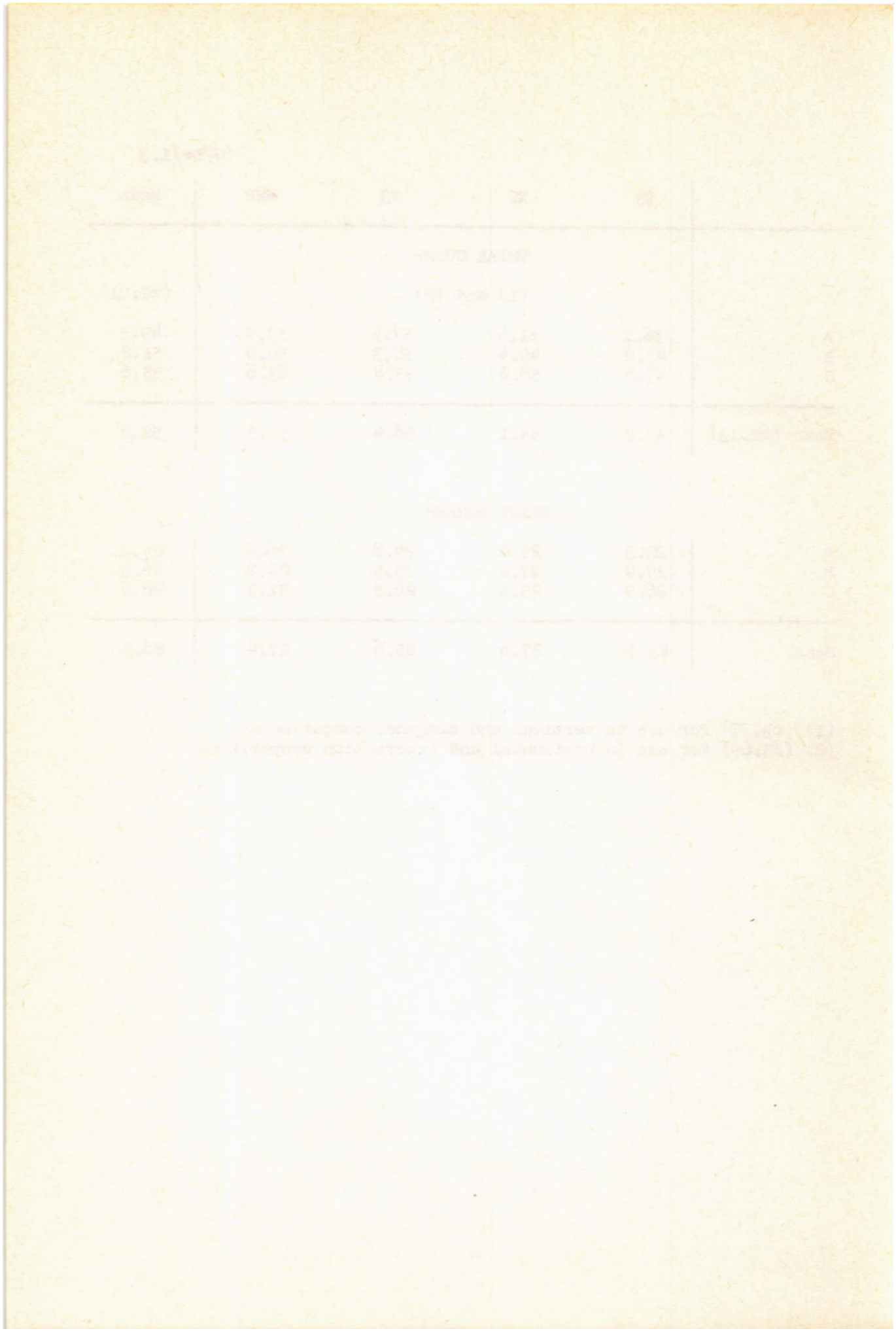
(1) (±1.041) For use in vertical and diagonal comparisons
(2) (±1.027) For use in horizontal and interaction comparisons

https://doi.org/10.23637/ERADOC-1-157

	N1	N2	N3	N2P	Mean
		TOTAL SUGAR			
		(1) and (2)			(±2.01)
A	36.1	51.4	57.5	52.9	49.5
B	47.2	49.4	58.3	50.0	51.2
C	47.8	58.6	53.4	63.6	55.8
Mean (±2.13)	43.7	53.1	56.4	55.5	52.2
		PLANT NUMBER			
A	22.3	25.0	24.8	26.6	24.7
B	27.4	27.9	25.5	24.2	26.3
C	26.9	29.8	26.5	31.3	28.6
Mean	25.5	27.6	25.6	27.4	26.5

(1) (±3.77) For use in vertical and diagonal comparisons
(2) (±3.69) For use in horizontal and interaction comparisons

https://doi.org/10.23637/ERADOC-1-157



67/Df/1.1

GRASS

(RG 101)

Anhydrous and aqueous ammonia - Bones Close 1967.

Design: 3 randomised blocks of 26 plots.

Area of each plot: 0.0092. Area harvested: 0.0054.

Treatments: None (N0) - 2 plots per block, and all combinations of:-

1. Nitrogen fertiliser and time of application:
   - Applied in autumn:
     - Injected anhydrous ammonia (Nov 15) — IAA
     - Injected aqueous ammonia (Nov 7) — IQA
   - Applied in spring:
     - Injected anhydrous ammonia (Mar 7) — IAS
     - Injected aqueous ammonia (Mar 8) — IQS
   - Broadcast 'Nitro-Chalk':
     - Applied in 3 equal dressings — BD
     - Applied as single dressing — BS
2. N: 1.0 (N1), 2.0 (N2), 3.0 (N3), 4.0 (N4) cwt (total for the season).

Basal application: 900 lb (0:14:28) in winter.

Cultivations, etc.: Basal PK compound applied: Nov 22, 1966. 'Nitro-Chalk' applied (treatment BS and first dressing of BD): Mar 22, 1967. Cut three times: May 31, July 20, Oct 11. 'Nitro-Chalk' applied after first two cuts for BD treatment.

NOTE: Soil samples were taken to determine extent of ammonia diffusion and grass samples for dry matter and percentage of N, P and K.

Standard errors per plot. Grass dry matter

1st cut:	4.46 or 8.8% (46 d.f.)
2nd cut:	2.09 or 11.3% (46 d.f.)
3rd cut:	1.98 or 18.9% (46 d.f.)
Total of 3 cuts:	5.90 or 7.4% (46 d.f.)

https://doi.org/10.23637/ERADOC-1-157

SUMMARY OF RESULTS

	IAA	IQA	IAS	IQS	BD	BS	Mean
			1ST CUT				
			(±2.57)				(±1.05)
N1	47.4	53.6	49.8	45.6	43.7	51.0	48.5
N2	51.2	53.3	47.6	49.2	52.2	46.0	49.9
N3	55.3	54.9	51.1	48.5	48.3	48.4	51.1
N4	57.2	56.6	47.3	48.6	51.1	49.9	51.8
Mean (±1.29)	52.8	54.6	48.9	48.0	48.8	48.8	50.3

NO: 37.2 (±1.82)
General mean: 49.3
Mean D.M. %: 15.4

			2ND CUT				
			(±1.20)				(±0.49)
N1	8.2	9.9	16.4	12.3	15.8	12.5	12.5
N2	10.3	21.3	19.6	18.1	23.5	18.0	18.5
N3	16.7	22.3	18.5	22.8	24.6	20.2	20.8
N4	16.5	23.9	20.6	23.8	22.9	25.7	22.2
Mean (±0.60)	12.9	19.4	18.8	19.3	21.7	19.1	18.5

NO: 6.3 (±0.84)
General mean: 17.6
Mean D.M. %: 24.4

https://doi.org/10.23637/ERADOC-1-157

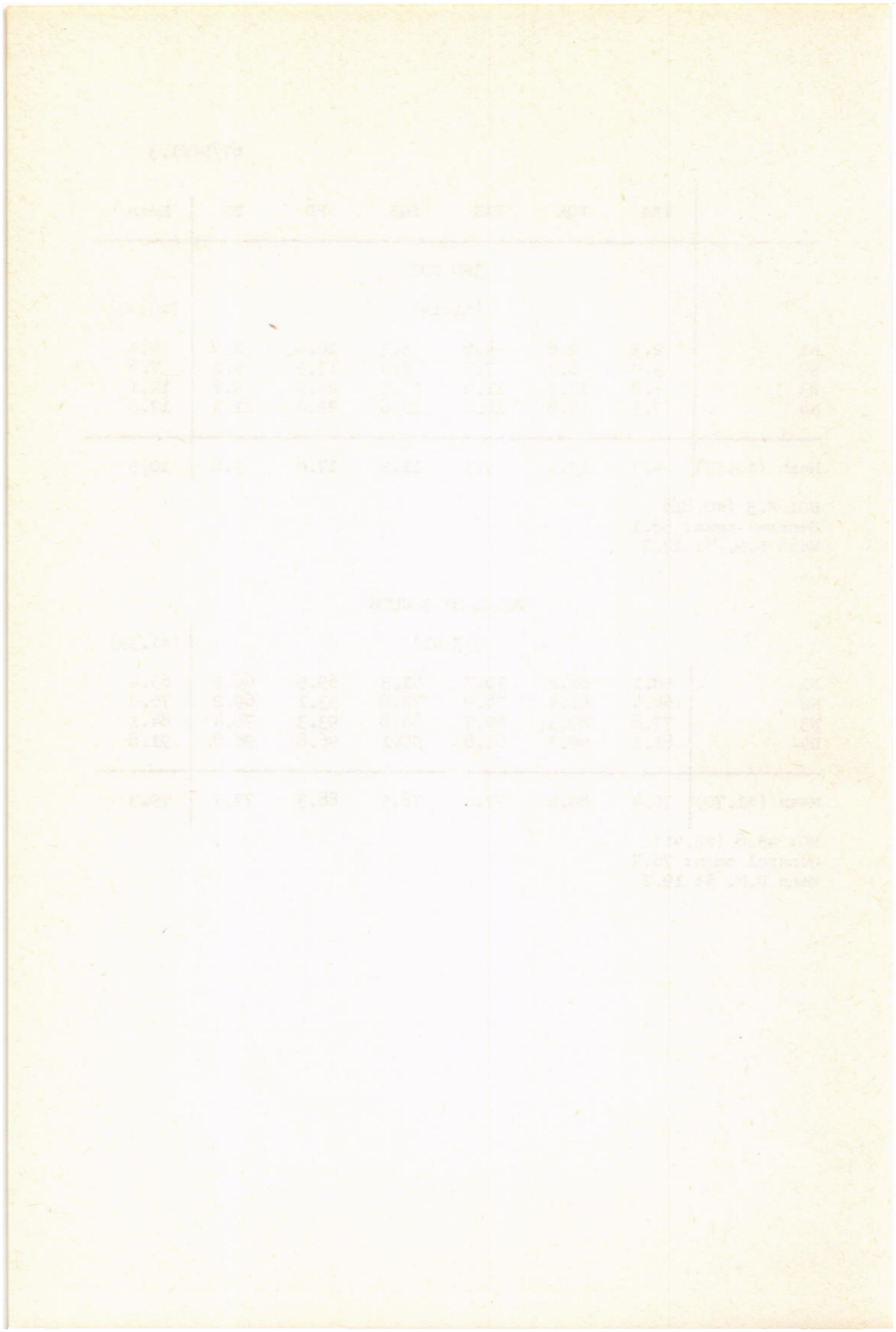
	IAA	IQA	IAS	IQS	BD	BS	Mean
			3RD CUT				
			(±1.14)				(±0.47)
N1	2.5	2.6	4.6	3.3	10.4	2.9	4.4
N2	3.0	6.7	7.7	5.4	17.5	5.2	7.6
N3	5.8	12.0	11.2	13.5	20.5	9.8	12.1
N4	7.5	18.8	14.0	22.6	22.8	21.2	17.8
Mean (±0.57)	4.7	10.0	9.3	11.2	17.8	9.8	10.5

NO: 2.3 (±0.81)
General mean: 58.1
Mean D.M. %: 17.7

			TOTAL OF 3 CUTS				
			(±3.41)				(±1.39)
N1	58.1	66.2	70.7	61.3	69.9	66.5	65.4
N2	64.4	81.4	74.9	72.8	93.1	69.2	76.0
N3	77.8	89.3	80.7	84.8	93.3	78.4	84.1
N4	81.2	99.3	81.8	95.1	96.8	96.8	91.8
Mean (±1.70)	70.4	84.0	77.0	78.5	88.3	77.7	79.3

NO: 45.8 (±2.41)
General mean: 76.7
Mean D.M. %: 19.2

https://doi.org/10.23637/ERADOC-1-157



67/Df/2.1

GRASS

(RG 201)

Nitrogen and damage to sward by ammonia-injectors, Bones Close 1967.

Design: 1 randomised block of 18 plots.

Area of each plot: 0.0092. Area harvested: 0.0054.

Treatments: All combinations of:-
1. Mechanical damage by injector: None (0), damage by 'Anhydrous' injector (Ia), by 'Aqua' injector (Iq).
2. Time of damage: In autumn (A), in spring (S).
3. Nitrogen per cut: 0.3 (N1), 0.6 (N2), 1.0 (N3) cwt as 'Nitro-Chalk' broadcast by hand.

Basal application: 900 lb (0:14:28) applied in winter.

Cultivations, etc.: Autumn injector slits made - 'Aqua': Nov 7, 1966, 'Anhydrous': Nov 14. Basal PK compound applied: Nov 22. Spring injector slits made - 'Anhydrous': Mar 7, 1967, 'Aqua': Mar 8. 'Nitro-Chalk' applied: Mar 22. Cut three times: June 1, July 20, Oct 12. 'Nitro-Chalk' applied after first two cuts.

NOTE: Grass samples were taken for dry matter and percentage of N.

Standard errors per plot (estimated from the 3-factor interaction).

Dry matter:

1st cut:	2.42 or 5.0% (4 d.f.)
2nd cut:	3.26 or 14.4% (4 d.f.)
3rd cut:	0.83 or 5.7% (4 d.f.)
Total of 3 cuts:	3.89 or 4.5% (4 d.f.)

https://doi.org/10.23637/ERADOC-1-157

67/Df/2.2

SUMMARY OF RESULTS

DRY MATTER

	IA	IQ	N1	N2	N3	Mean
			1ST CUT			
	(±1.40)			(±1.71)		(±0.99)
A	50.0	53.3	50.7	46.3	58.0	51.7
S	48.3	44.6	43.7	47.7	47.9	46.4
				(±1.71)		(±0.99)
		0	43.8	47.5	54.0	48.4
		IA	50.4	46.6	50.4	49.1
		IQ	43.9	47.4	55.5	48.9
Mean (±0.99)			46.1	47.2	53.3	48.8

Mean D.M. %: 15.8

67/Df/2.3

DRY MATTER

	IA	IQ	N1	N2	N3	Mean
			2ND CUT			
	(±1.88)			(±2.31)		(±1.33)
A	23.2	22.3	18.2	24.2	25.8	22.8
S	22.4	22.1	16.9	24.0	25.8	22.3
				(±2.31)		(±1.33)
		0	19.3	23.2	25.8	22.8
		IA	18.0	23.8	26.5	22.8
		IQ	17.1	24.4	25.2	22.2
Mean (±1.33)			18.2	23.8	25.8	22.6

Mean D.M. %: 24.0

https://doi.org/10.23637/ERADOC-1-157

67/Df/2.4

DRY MATTER

	IA	IQ	N1	N2	N3	Mean
			3RD CUT			
	(±0.48)			(±0.59)		(±0.34)
A	15.0	13.7	9.4	15.6	18.1	14.3
S	14.3	15.7	10.1	16.4	18.6	15.0
				(±0.59)		(±0.34)
		0	9.5	15.6	18.2	14.4
		IA	9.9	15.7	18.3	14.6
		IQ	9.5	16.3	18.4	14.7
Mean (±0.34)			9.6	15.9	18.3	14.6

Mean D.M.%: 18.8

https://doi.org/10.23637/ERADOC-1-157

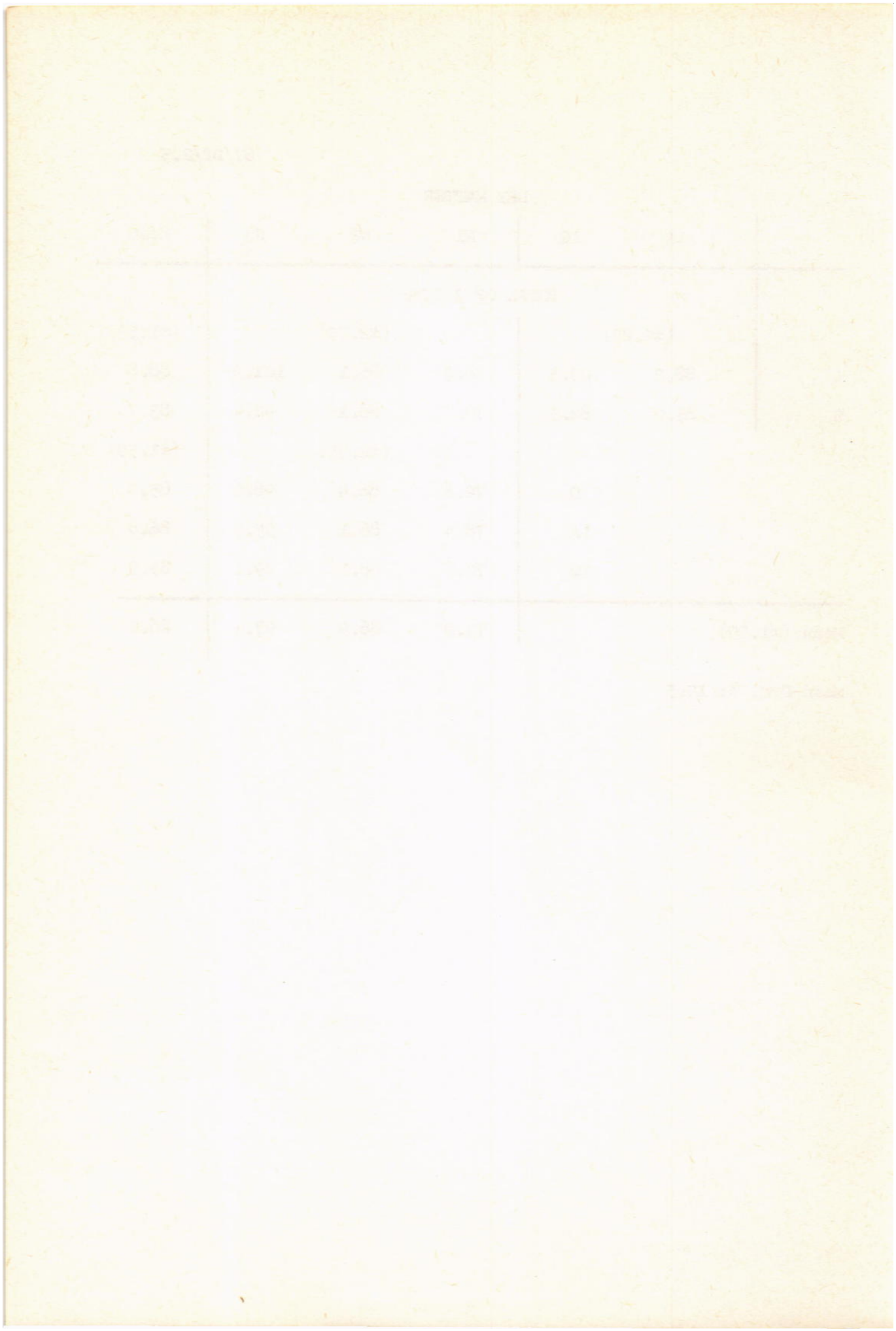
67/Df/2.5

DRY MATTER

	IA	IQ	N1	N2	N3	Mean
	TOTAL OF 3 CUTS					
	(±2.25)			(±2.75)		(±1.59)
A	88.2	89.3	78.3	86.1	101.9	88.8
S	85.0	82.5	70.7	88.1	92.4	83.7
				(±2.75)		(±1.59)
		0	72.6	86.4	98.0	85.7
		IA	78.4	86.1	95.3	86.6
		IQ	70.6	88.1	99.1	85.9
Mean (±1.59)			73.9	86.9	97.4	86.0

Mean D.M. %: 19.5

https://doi.org/10.23637/ERADOC-1-157



67/Dg/1.1

OILSEED RAPE

(RRa 101)

Row spacing, seed rates and N - Highfield IV, 1967.

Design: 5 randomised blocks of 4 plots, split for N.

Area of each sub plot: 0.0129. Area harvested: 0.0092.

Treatments: All combinations of:-
Whole plots: 1. Row spacing: 20 inches (W), 4 inches (N).
2. Seed rate: 5 lb (L), 10 lb (H).
Sub plots: 3. N: 1.0 (N1), 1.4 (N2), 1.8 (N3) cwt as basal compound fertiliser plus 'Nitro-Chalk'.

Basal applications: 750 lb (15:15:15) broadcast by drill. Ground chalk at 2 tons (part area), 4 tons (remainder). Insecticide: Malathion at 18 oz in 30 gals.

Cultivations, etc.: Ploughed: Nov 4, 1966. Ground chalk applied: Jan 4, 1967. Basal NPK applied: Mar 28. Seed drilled: Mar 30. 'Nitro-Chalk' applied: Mar 31. Insecticide applied: June 16. Combine harvested: Sept 6. Variety: Nilla. Previous crops: Barley 1965 and 1966.

NOTE: At harvest the crop was leaning down the length of the plots in a south-westerly direction. Alternate whole plots were cut by the combine working in opposite directions. On plots where the combine moved south-west (with the lie of the crop) yields were less than on plots cut the other way. The estimated difference of grain yield was 0.5 cwt per acre. The means presented have been adjusted accordingly. (The sub-plot comparisons are not affected as all sub-plots in one whole plot were cut the same way). The comparison of seed rates is also not affected as, by a chance of the randomisation the plots of each level were harvested half in each direction.

https://doi.org/10.23637/ERADOC-1-157

Standard errors per plot.
Grain (at 90% dry matter). Whole plot: 1.37 or 6.6% (11 d.f.)
Sub plot: 3.80 or 18.1% (32 d.f.)
Yield of fixed oil: lb per acre.
Whole plot: 55.4 or 6.7% (11 d.f.)
Sub plot: 149.3 or 18.1% (32 d.f.)

SUMMARY OF RESULTS

GRAIN (AT 90% D.M.) CWT PER ACRE

	L	H	N1	N2	N3	Mean
	(±0.61)			(1) and (2)		(±0.43)
W	21.0	21.2	19.2	21.5	22.5	21.1
N	20.0	21.9	20.3	21.4	21.1	20.9
				(1) and (2)		(±0.43)
		L	19.5	21.0	20.9	20.5
		H	20.0	21.9	22.7	21.5
		Mean (±0.85)	19.7	21.4	21.8	21.0

(1) (±1.07) For use in vertical and diagonal comparisons
(2) (±1.20) For use in horizontal and interaction comparisons

Mean D.M. %: 84.0

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	L	H	N1	N2	N3	Mean
			% FIXED OIL			
W	38.8	39.5	39.4	39.2	38.9	39.1
N	38.9	39.2	40.5	38.5	38.3	39.1
		L	39.6	38.3	38.7	38.8
		H	40.3	39.4	38.5	39.4
		Mean	39.9	38.8	38.6	39.1
			YIELD OF FIXED OIL: LB PER ACRE			
	(±24.8)			(1) and (2)		(±17.5)
W	819	841	762	848	881	830
N	781	866	826	831	815	824
				(1) and (2)		(±17.5)
		L	777	810	814	800
		H	811	869	882	854
		Mean (±33.4)	794	839	848	827

(1) (±42.3) For use in vertical and diagonal comparisons
(2) (±47.2) For use in horizontal and interaction comparisons