

FIELD EXPERIMENTS 1968

Serial No. 01

Stat. File 23V

CROP: Maincrop Potatoes

Field H. Clampe Close
(Morley)

EXPERIMENT: Rate of Bulking - Periodic Top Removal

TREATMENTS AND LAYOUT: Three randomized blocks

Main treatment.	Variety	1)	Pentland Crown, chitted
		2)	Pentland Crown, bagged
		3)	Bintje chitted
		4)	Maris Piper chitted

All seed $1\frac{1}{4}$ " x $2\frac{1}{4}$ "

Sub treatment	Top removal:	Five proposed dates at 10 day interval in practice (1) 23rd July (2) 2nd August (3) 12th August (4 & 5) both burnt off 17th August.
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Plot Size: Treatment: 15 yds x 4 rows @ 30 inch.

Harvest: 15 yds x 2 rows @ 30 inch
(machine lifted)

Manuring with dates of : 9 cwt. 13:13:20 compound per acre in Spring

Date of Variety:

Planting: 26-27th March using Robot 3 row planter

Blight sprays:	2 July	(Fennite arial application)
	21 July	" " "
	31 July	" " "

Haulm destruction, as above haulm cut except on 17th August when remaining plots were burnt off with acid along with fieldcrop.

Remark: Blight kill fairly high on some plots during August.
To control regrowth of haulm and weeds where tops were cut off plots were sprayed with Preglone 1st lift on 26 July and the 2nd and 3rd on 15th August.

Previous Cropping	1965	Sugar beet
	1966	barley
	1967	barley

Maincrop Potatoes

Periodic Top Removal 1968

Total yield (tons/acre)

Time of top removal	Bintje chitted	Maris Piper chitted	Pentland Crown chitted	Pentland Crown unchitted	Mean
1. 23rd July	11.7	14.8	9.5	7.8	11.0
2. 2nd August	12.0	15.8	11.5	10.0	12.3
3. 12th August	13.2	17.2	12.5	10.5	13.4
4. 17th August	12.3	17.0	12.2	9.0	12.6
5. 17th August	13.1	16.0	12.3	9.3	12.7

	S.E. \pm	S.E. as % G.M.
Whole plot means (variety)	0.48	3.9
Sub plot means (top removal)	0.27	2.2
Individual sub plots within a whole plot	0.55	4.4
Individual sub plots between whole plots	0.68	5.5

Yield over 2" (tons/acre)

Time of top removed	Bintje chitted	Maris Piper chitted	Portland Crown chitted	Portland Crown unchitted	Means
1. 23 July	5.6	6.5	7.5	4.7	6.0
2. 2 August	6.5	7.6	9.4	7.0	7.6
3. 12 August	8.0	9.5	10.2	7.1	8.7
4. 17 August	7.5	9.7	9.9	6.4	8.4
5. 17 August	8.1	8.7	9.8	6.7	8.3
Means	7.1	8.3	9.3	6.4	7.8

	S.E. $\frac{1}{2}$	S.E. as % C.V.
Whole plot means (variety)	0.31	4.0
Sub plots means (top removed)	0.26	3.3
Individual sub plots within a whole plot	0.61	7.8
Individual sub plots between whole plots	0.61	7.8

Yield ware over 1 $\frac{1}{8}$ " (tons/acre)

Time of top removal	Bintje chitted	Maris Piper chitted	Pentland Crown chitted	Pentland Crown unchitted	Means
1. 23rd July	10.5	13.1	9.1	7.2	10.0
2. 2nd August	10.8	14.1	11.0	9.4	11.3
3. 12th August	12.1	15.8	12.1	10.0	12.5
4. 17th August	11.4	15.6	11.7	8.5	11.8
5. 17th August	12.0	14.7	11.8	8.8	11.8
Means	11.4	14.7	11.1	8.8	11.5

	S.E. \pm	S.E. as % G.M.
Whole plot means (variety)	0.41	3.6
Sub plot means (top removal)	0.26	2.3
Individual sub plots within a whole plot	0.52	4.5
Individual sub plots between whole plots	0.62	5.4

Percentages were over 2"

Time of top removal	Bintje chitted	Maris Piper chitted	Fentland Green chitted	Fentland Green Unchitted	Means
1. 23 July	48.0	43.9	76.7	60.3	57.2
2. 2 August	54.2	48.3	81.8	69.9	63.6
3. 12 August	60.7	53.7	81.5	67.6	65.9
4. 17 August	59.8	57.1	81.2	69.3	66.8
5. 17 August	62.2	54.3	79.1	72.0	66.9
Means	57.0	51.5	80.1	67.8	64.1

	S.E. \pm	S.D. as $\sqrt{G.M.}$
Whole plot means (variety)	0.65	1.0
Sub plot means (to removal)	1.61	2.5
Individual sub plots within a whole plot	2.95	4.6
Individual sub plots between whole plots	3.21	5.0

Percentage ware over 1 $\frac{3}{8}$ "

Time of top removal	Bintje Chitted	Maris Piper Chitted	Pentland Crown Chitted	Pentland Crown Unchitted	Means
1. 13rd July	89.7	88.7	95.0	92.1	91.4
2. 2nd August	89.9	89.6	95.9	94.1	92.4
3. 12th August	91.9	91.6	96.4	94.7	93.6
4. 17th August	92.6	91.8	96.2	94.4	93.7
5. 17th August	92.0	91.8	95.5	94.6	93.5
Means	91.2	90.7	95.8	94.0	92.9

	S.E. \pm	S.E. as % G.M.
Whole plot means (variety)	0.31	0.3
Sub plot means (top removal)	0.47	0.5
Individual sub plots within a whole plot	0.95	1.0
Individual sub plots between whole plots	0.90	1.0

Percentage ware over 2" diseased

Time of top removal	Bintje chitted	Maris Piper chitted	Pentland Crown chitted	Pentland Crown unchitted	Means
1. 23 July	11.5	0.0	0.4	0.2	3.1
2. 2 August	18.4	0.4	1.5	0.5	5.2
3. 12 August	15.5	0.0	1.0	0.8	4.3
4. 17 August	15.4	0.1	1.0	1.0	4.4
5. 17 August	14.8	0.0	0.5	1.6	4.2
Means	15.1	0.1	0.9	0.8	4.2

	S.E. †	S.E. as % G.M.
Whole plot means (variety)	0.25	6.0
Sub plot means (top removal)	0.85	20.2
Individual sub plots within a whole plot	1.70	40.4
Individual sub plots between whole plots	1.54	36.7

Percentage ware over 1 $\frac{5}{8}$ " diseased

Time of top removal	Bintje chitted	Maris Piper chitted	Pentland Crown chitted	Pentland Crown unchitted	Means
1. 23 July	11.8	0.1	0.3	0.3	3.1
2. 2 August	19.1	0.4	1.3	0.6	5.4
3. 12 August	15.2	0.1	1.1	1.1	4.4
4. 17 August	15.8	0.2	1.1	0.9	4.5
5. 17 August	14.9	0.0	0.5	1.5	4.2
Means	15.4	0.2	0.8	0.9	4.3

	S.E. \pm	S.E. as % G.M.
Whole plot means (variety)	0.28	6.2
Sub plot means (top removal)	0.75	16.7
Individual sub plots within a whole plot	1.50	33.3
Individual sub plots between whole plots	1.37	30.4