

FIELD EXPERIMENTS 1958

Crop: Potatoes

Field: Heater Piece.

Experiment: Disinfection of Seed potatoes trial (Wedderspoon)..

Treatments & Layout: 5 x 5 Latin Square.

1. Treated with 'Areton'
2. " " mercuric dichloride and phenol.
3. " " 'PP' mercurial.
4. Washed only.
5. Graded only by same plant.

Plot Size: Treatment - 18 yards x 3 rows at 30"

Harvest: 18 yards x 3 rows.

Manuring with dates of:

12 tons/acre F.Y.M.

10 cwts/acre of 10:10:15 compound fertiliser placed by Robot planter.

Date of drilling: April 8th Variety: King Edward Seed Rate: 1 ton/acre

Date of Examination of stored seed: 3rd June

Date of Counts of emergence and plant size: in field: 21st May.

Date of digging in field for emerged tubers, and blackleg counts: July 5th.

Date of Harvest: October 20th (Hoover) Date of riddling: Nov. 24th. sieves used

Remarks (previous cropping, cultivations, etc.)

1957 Seed Barley

1956 Sugar Beet

1955 Spring Oats.

Note Book No.

/K2.

Results of Disinfection of Seed Potatoes Trial Heater Piece 1958

Examination of unused seed stored in tarehouse

<u>Treatment</u>	<u>Percentage of rotten tubers</u>
1. Areton	7.3
2. Mercuric Cl. + phenol	8.9
3. P.P. Mercurial	16.8
4. Washed only	1.7
5. Graded only	0

Field counts on emergence & size of emerged tops

<u>Treatment</u>	<u>Total Emerged</u>	<u>Total Big Tops</u>	<u>Big Tops as % of Total</u>
1	357	228	64
2	339	130	38
3	354	188	53
4	343	156	45
5	378	192	51

Digging in gaps failed to reveal any rotten tubers and they were therefore probably due to 'misses' during machine planting. Severe leaf roll was common. Blackleg was noted as follows: Treatment 4, 1 ~~plot.~~ _{plant}. Treatment 3, one ~~plot.~~ _{plant}. Treatment 2, two ~~plots.~~ _{plants}.

Harvest Yield Data in Tons per acre

<u>Treatment</u>	<u>Total Tubers</u>	<u>Ware</u>	<u>Seed & Chats</u>
1. Areton	9.43	8.40	1.03
2. Mercuric Cl. + Phenol	8.75	7.85	0.90
3. P.P. Mercurial	9.63	8.60	1.03
4. Washed only	9.02	8.11	0.91
5. Graded by plant only	10.43	9.42	1.01
Sig. Difference	N.S.	N.S.	N.S.
Coeff. of Variation	10.3% 9.4%	10.8%	15.5%