

FIELD EXPERIMENTS 1971

POTATO BLIGHT EXPERIMENT

EXPERIMENT: Logarithmic screening of
potato blight fungicides

SITE: Meggs Land, Morley
Norfolk

SOIL TYPE: Sandy loam

TREATMENT AND LAYOUT: 2 systematic replicates

Peak Dose(prod/ac)

<u>Antracol</u>	6 lb	<u>Maneb</u>	4.5 lb
<u>Blitz Blight</u>	4 lb	<u>Sanspor</u>	7.5 pt
<u>Brestan 60</u>	2.5 lb	<u>Trimanzone</u>	6 lb
<u>Maneb/Brestan</u>	4 lb	<u>Triphentia</u> acetate	2.5 lb
<u>Dithane 945</u>	4 lb	<u>Trizaman D</u>	6 lb
<u>Du-ter</u>	4 lb	<u>Polyram Blue</u>	6 lb
<u>Erithane</u>	4 lb	A 709 (ARD/92/03)	6 lb
<u>Fennite A</u>	4 lb		

PLOT SIZE: Treatment: Two 30in. rows x 20 yds.

Harvest: 6 ft of row at recommended rate for tuber blight
assessment

MANURING OF

EXPERIMENTAL CROP: 10 cwt 13:13:20 (130:130:200)

PREVIOUS CROPPING:

1969 Spring wheat
1970 Sugar beet

CULTIVATIONS:

29 March triple K across plots

PLANTING:

Date: 8 April
Seed: Maris Piper

SPRAYING (1)

Date: 29 June

Weather conditions during spraying: 17°C, cloudy, few spots rain near end of spraying, strong W wind force 4, moderate humidity

Equipment and method adopted: Van der Weij, 2.5 kg/cm²
Birchmeier nozzles 1.2-2F-0.6

State of potatoes: 18in. high and meeting in rows

Chemicals:

Antracol (Ex Bayer) - 70% propineb as dispersible powder

Blitz Blight (Ex Amono) - cufraneb (zinc, manganese, copper, iron dithiocarbamate complex) and ethylene bisdithiocarbamic acid.

Brestan 60 (Ex Hoechst) - 60% fentin acetate + 20% maneb

Maneb/Brestan (Ex Hoechst) 10% fentin acetate + 62% maneb

Dithane 945 (Ex Shellstar) - 80% mancozeb (20% Mn, 2.5% Zn) as wapp

Du-ter (Ex Midox)
Erithane (Ex Bayer) - 20% fentin hydroxide

Fennite A (Ex Fisons) - 6.5% fentin acetate + maneb

Maneb (Ex BASF) - 80% maneb

Sanspor (Ex Plant Protection) - % Gaptofol

Trimanzone (Ex Bos) - 85% dithiocarbamate containing ethylene and dimethyl - bisdithiocarbamate ions, zinc, manganese, & iron ions.

Triphentin acetate (Ex Bos) - 20% fentin acetate.

Trizaman D (Ex Murphy) -

Polyram Blue (Ex BASF) - zimb-polyethylene thiuramdisulphide complex

A 709 (Ex May and Baker) - fentin hydroxide + propineb

State of Potatoes: 18in. tall meeting in rows some flowering

POTATO ASSESSMENT:

Date: 2 September (1) 7 March 72(2)

Method: Measurements at specific levels of foliar blight infection (1)
Assessment of tuber blight infections after period in store (lifted Nov.10).

SPRAYING (2)

Date: 2 August

Weather conditions during spraying: 20°C, cloudy, slight shower near end of spraying, SW breeze force 3, moderate humidity

Equipment and method adopted: Van der Weij 2.5 kg/cm²
Birchmeier 1.2-2F-0.6

Chemicals: See spraying sheet (1)

State of potatoes: Potatoes crossing in rows

POTATO ASSESSMENT:

Date: 2 September(1) 7 March 72(2)

Method: Measurements at specific levels of foliar blight infections (1)
Assessment of tuber blight infections after period in store (lifted Nov. 10). This showed no tuber blight present.

SPRAYING (3)

Date: 17 August

Weather conditions during spraying: 20°C, sunny, SE breeze force 4, low humidity

Equipment and method adopted: Van der Weij 2.5 kg/cm²
Birchmeier nozzles 1.2-2F-0.6

Chemicals: See spraying sheet (1)

State of potatoes: fully mature, some yellowing

POTATO ASSESSMENT:

Date: 2 September(1) 7 March 72(2)

Method: Measurements at specific levels of foliar blight infection(1)
Assessment of tuber blight infection after a period in store (lifted 10 Nov.) This showed no tuber blight to be present.

TREATMENT (Peak Dose)	% Blight Infection							
	0.0	0.1	1.0	5.0	25.0	50.0	75.0	95.0
<u>Antracol</u> 6 lb	-	-	-	(4.7)	3.9	2.2	1.0	(0.4)
<u>Blitz Blight</u> 4 lb	-	-	-	-	3.1	1.4	0.5	-
<u>Brestan 60</u> 2.5lb	-	-	-	2.1	1.0	0.5	(0.3)	-
<u>Maneb/Brestan</u> 4 lb	-	-	-	(3.8)	2.6	1.5	(0.3)	-
<u>Dithane 945</u> 4 lb	-	-	-	(3.3)	1.7	0.8	0.3	-
<u>Du-ter</u> 4 lb	-	-	-	2.6	1.5	0.5	-	-
<u>Erithane</u> 2 lb	-	-	-	(3.1)	2.5	1.1	0.5	(0.2)
<u>Fennite A</u> 4 lb	-	-	-	-	(3.6)	2.8	0.9	-
Maneb 4.5 lb	-	-	-	(4.2)	3.3	1.5	0.6	-
<u>Sanspor</u> 7.5pt	-	-	-	-	5.5	2.7	(0.7)	-
<u>Trimanzone</u> 6 lb	-	-	-	(5.8)	3.1	1.1	-	-
Triphentín acetate 2.5 lb	-	-	-	1.2	0.6	0.2	-	-
<u>Trizaman D</u> 6 lb	-	-	-	(4.3)	3.2	1.8	0.3	-
<u>Polyram Blue</u> 6 lb	-	-	-	(5.6)	4.1	2.0	0.4	-
A 709 6 lb	-	-	-	-	4.1	2.4	1.1	0.3

Figures in brackets indicate that the level of infection was observed on one replicate only.