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# Yields of the Field Experiments 1974



Full Table of Content

## 74/R/M/6 Control of Frit Fly - Maize, Sweet Corn - Mixed Crops

74/R/M/6 Control of Frit Fly - Maize, Sweet Corn - Mixed Crops, Rothamsted Research (1975) Yields Of The Field Experiments 1974, pp 370 - 372 - DOI: https://doi.org/10.23637/ERADOC-1-119

#### 74/R/M/6

#### MAIZE AND SWEET CORN

#### CONTROL OF FRIT FLY

Object: To study the effects of several insecticides applied at different times on the incidence of frit fly (Oscinella frit) and yield of maize and sweet corn. The effects of a molluscicde are also studied -Long Hoos VI.

Sponsors: J.C. Wilson, K.E. Fletcher.

Design: 3 randomised blocks of 2 plots split into 7.

Whole plot dimensions: 3.66 x 6.09. Sub plot area harvested: 0.00149.

Treatments: All combinations of:-

Whole plots: 1. Crop:

CROP

Grain maize, Pioneer 131 Sweet corn, Early King Maize Sweetern

Sub plots: 2. Chemicals:

CHEMICAL

None Chlorfenvinphos for

Chlorfenvinphos foliar spray early

(12 June)

Chlorf E

None

Chlorfenvinpnos foliar spray later

(8 July)

Chlorf L Dimeth E Dimeth L

Dimethoate foliar spray early (12 June) Dimethoate foliar spray later (8 July) Phorate granules drilled with the seed

Methicearb granules at crop emergence (13 June) Phorate Methio

NOTE: Chlorfenvinphos applied at 1.35 kg in 340 l.
Dimethoate applied at 0.67 kg in 340 l.
Phorate applied at 1.68 kg.

Methicarb applied at 1.00 kg.

Basal applications: Manures: (0:14:28) at 875 kg. 'Nitro-Chalk' at 500 kg. Weedkiller: Atrazine ('Vectal' at 3.4 kg in 340 1).

Seed: Sown at 108,000 per ha.

#### 71/R/M/6

- Cultivations, etc.:- PK applied, ploughed: 12 Nov, 1973. Spring-time cultivated: 24 Apr, 1974. Power harrowed: 1 May. N applied, power harrowed, seed sown: 2 May. Weedkiller applied: 21 May. Sweet corn harvested: 8 Oct. Grain maize harvested: 13 Dec. Previous crops: Winter Wheat 1972, fallow 1973.
- MOTES: (1) Estimates of the effectiveness of control of frit fly were made on 5 July.
  - (2) Marked plants in each treatment were used to assess damage by pest and possible phytotoxic effects.
  - (3) Water traps were placed in each treatment to measure the activity of adult frit flies.
  - (4) Length and weight of cobs and number of grains per cob, were measured after harvest on plants with and without frit fly damage.

Standard errors per plot:

Maize. Grain, tonnes/hectare: 0.122 or 9.9% (12 d.f.)

Sweet corn. Total saleable cobs, tonnes/hectare: 0.514 or 54.7% (12 d.f.)

No. of saleable cobs, thousands/hectare: 2.66 or 59.4% (12 d.f.)

### 74/R/M/6

#### TABLES OF MEANS

CROP

Maise

ORAIN: TONNES/HECTARE

Kone	Chlorf E	Chlorf L	CHEMICAL Dimeth E	Dimeth L	Phonite	Nethic	Mean
1.23	1.08	1.25	1.14	1.37	1.38	1.16	1.23
STANDAR	D ERRORS OF	DIFFERENCE	S				

CHEMICAL

0.100

Mean D.M. % 87.7

CROP

Sweetern

None	Chlorf E	Chlorf L	Dimeth E	Dimeth L	Phorate	Methio	Mean
		POTAL SALE	BABLE COBS:	: TONNES/H	BCTARE		
0.66	0.61	0.67	0.99	0.91	2.01	0.73	0.94
STANDARI	D ERRORS OF	DIFFERENCE	SS				
CHEMICAL	L						
0.420	)						•
	NUMBI	ER OF SALE	EABLE COBS:	THOUSAND	S/HECTARE		
2.9	2.9	2.9	5.2	3.8	10.5	3.1	4.5
STANDARI	D ERRORS OF I	OTFFERENCE	is.				

372

CHEMICAL

2.17