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Yields of the Field Experiments 1975

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75/ R/M/2 - Maize & Sweet Corn Insect & Virus Control - Grass

Rothamsted Research

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75/R/M/2

MAIZE AND SWEET CORN

INSECT AND VIRUS CONTROL

Object: To study the effects of several insecticides applied at different times on control of insects and on yield of maize and sweet corn - Long Hoos V 7.

Sponsors: J.C. Wilson, K.E. Fletcher, R.T. Plumb.

Design: 3 randomised blocks of 2 plots split into 8.

Whole plot dimensions: 3.20 x 18.3.

Treatments: All combinations of:-

Whole plots: 1. Crop:

Grain maize, Cargill Primeur 170
Sweet corn, Early King

CROP
MAIZE
SWEETCORN

Sub plots: 2. Chemicals and times of application:

None (duplicated, for maize only)
Aldicarb in seedbed (sweet corn only)
Phorate granules in seedbed (duplicated, for maize only)
Phorate granules in seedbed plus second-early spray
of dimethoate (sweet corn only)
Chlorfenvinphos, first-early spray (25 June)
Chlorfenvinphos, second-early spray (18 July)
Dimethoate, first-early spray (25 June)
Dimethoate, second-early spray (18 July)

CHEMICAL
NONE
AL
PH
PH/DI/E2
CH/E1
CH/E2
DI/E1
DI/E2

NOTE: Aldicarb applied at 4.48 kg.
Dimethoate applied at 0.67 kg in 340 l.
Phorate applied at 1.68 kg.
Chlorfenvinphos applied at 0.55 kg in 340 l.

Basal applications: Manures: (20:14:14) at 730 kg. Weedkiller: Atrazine ('Vectal' at 3.4 kg in 340 l).

Seed: Grain maize: Cargill Primcur sown at 123,000 seeds/ha.
Sweetcorn: Early King sown at 123,000 seeds/ha.

Cultivations: Ploughed: 10 Jan, 1975. NPK applied: 28 Apr. Spring-tine cultivated: 12 May. Aldicarb applied, power harrowed: 15 May. Phorate applied and seed sown: 21 May. Weedkiller applied: 23 May. Sweet corn harvested: 8 Sept. Grain maize harvested: 10 Nov. Previous crops: Spring wheat 1973, potatoes 1974.

NOTES: (1) Assessments of the numbers of plants and of shoots attacked by frit fly (*Oscinella frit*) were made: sweet corn: 9, 29 July, grain maize: 15 July.
(2) Aphid counts and virus assessments were made on 18 June, 10 July and 15 September.

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CROP MAIZE

*** TABLES OF MEANS ***

GRAIN TONNES/HECTARE

CHEMICAL	NONE	PH	CH/E1	CH/E2	D1/E1	D1/E2	MEAN
	2.96	2.90	2.76	2.76	3.26	3.18	2.97

*** STANDARD ERRORS OF DIFFERENCES OF MEANS ***

TABLE	CHEMICAL
-----	-----
SED	0.306 (1)
	0.375 (2)
	0.433 (3)

- (1) NON V PH
- (2) NONE OR PH V ANY OF REMAINDER
- (3) ANY OF REMAINDER

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	16	0.531	17.9

GRAIN MEAN DM% 65.0

PLOT AREA HARVESTED 0.00130

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CROP SWEETCRN

*** TABLES OF MEANS ***

WEIGHT OF SALEABLE COBS (OVER 10.16 CM) TONNES/HECTARE

CHEMICAL	NONE	AL	PH	PH/D1/E2	CH/E1	CH/E2	D1/E1	D1/E2	MEAN
	1.26	1.97	3.11	2.11	1.29	1.90	0.87	1.46	1.75

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	CHEMICAL
-----	-----
SED	0.364

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	14	0.446	25.5

NUMBER OF SALEABLE COBS (OVER 10.16 CM) TONNES/HECTARE

CHEMICAL	NONE	AL	PH	PH/D1/E2	CH/E1	CH/E2	D1/E1	D1/E2	MEAN
	9.4	14.8	20.0	15.5	10.8	13.9	7.0	11.9	12.9

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	CHEMICAL
-----	-----
SED	2.81

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	14	3.44	26.7

PLOT AREA HARVESTED 0.00149