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85/R/MA/2 Dazomet, Sowing Dates and Polythene Covers - Maize

Rothamsted Research

Rothamsted Research (1986) *85/R/MA/2 Dazomet, Sowing Dates and Polythene Covers - Maize* ;
Yields Of The Field Experiments 1985, pp 311 - 312 - DOI:

<https://doi.org/10.23637/ERADOC-1-19>

85/R/MA/2

MAIZE

DAZOMET, SOWING DATES AND POLYTHENE COVERS

Object: To study the effects of dazomet, two sowing dates and polythene covers on the growth, pathogens and yield of maize grown for forage - Long Hoos IV 4.

Sponsors: A.J. Barnard, D. Hornby.

Design: 3 randomised blocks of 16 plots.

Whole plot dimensions: 1.6 x 5.49.

Treatments: All combinations, duplicated, of:-

1. STERILNT Soil sterilant:
 NONE None
 DAZOMET Dazomet at 450 kg
2. SOW DATE Dates of sowing:
 15 APR 15 April, 1985
 10 MAY 10 May
3. COVERS Covers to seedbed after sowing:
 NONE None
 POLYTHNE Polythene sheet

NOTE: The covers were photo-degradable and were laid by hand within 10 days of sowing and then perforated at about 10 cm intervals over the drill rows to allow seedling emergence.

Basal applications: Manures: Muriate of potash at 520 kg. 'Nitro-Chalk' (27.5% N) at 550 kg. Weedkillers: Glyphosate at 1.4 kg in 220 l. Atrazine at 2.8 kg in 220 l. Insecticide: Pirimicarb at 0.14 kg in 220 l.

Seed: Bastille, sown at 100,000 seeds per hectare.

Cultivations, etc.:- Glyphosate applied: 26 Sept, 1984. Muriate of potash applied: 11 Dec. Ploughed: 13 Dec. Dazomet applied and worked in by hand-controlled spiked cultivator: 12 Mar, 1985. N applied: 10 Apr. Early-sown plots spring-tine cultivated and seed sown: 15 Apr. Atrazine and polythene treatments applied to early-sown plots: 16 Apr. Late-sown plots power harrowed and sown: 10 May. Atrazine applied to late-sown plots: 15 May. Polythene treatments applied to late-sown plots: 20 May. Insecticide applied: 24 July. Harvested by hand: 16 Oct. Previous crops: Fenugreek 1983, potatoes 1984.

NOTE: Plant counts were made at establishment, mid-season and pre-harvest. Growth rates, plant heights and length of selected leaves were measured. The crop was inspected for disease on four occasions throughout the season.

85/R/MA/2

FORAGE DRY MATTER TONNES/HECTARE

***** TABLES OF MEANS *****

SOW DATE	15 APR	10 MAY	MEAN	
STERILNT				
NONE	14.54	15.73	15.13	
DAZOMET	15.58	16.23	15.90	
MEAN	15.06	15.98	15.52	
COVERS	NONE	POLYTHNE	MEAN	
STERILNT				
NONE	15.24	15.03	15.13	
DAZOMET	15.33	16.48	15.90	
MEAN	15.28	15.75	15.52	
COVERS	NONE	POLYTHNE	MEAN	
SOW DATE				
15 APR	14.88	15.23	15.06	
10 MAY	15.69	16.28	15.98	
MEAN	15.28	15.75	15.52	
SOW DATE	15 APR		10 MAY	
COVERS	NONE	POLYTHNE	NONE	POLYTHNE
STERILNT				
NONE	14.60	14.47	15.88	15.59
DAZOMET	15.17	15.99	15.50	16.96

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

TABLE	STERILNT	SOW DATE	COVERS	STERILNT SOW DATE

SED	0.468	0.468	0.468	0.661
TABLE	STERILNT	SOW DATE	STERILNT	
	COVERS	COVERS	SOW DATE	
			COVERS	

SED	0.661	0.661	0.935	

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

STRATUM	DF	SE	CV%
BLOCK.WP	37	1.620	10.4

FORAGE MEAN DM% 24.4

PLOT AREA HARVESTED 0.00029

has passed in time
 and the results are
 as follows