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Yields of the Field Experiments 1992

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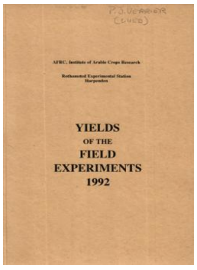

92/R/SU/2 Fungicide and Growth Stage - Sunflowers

Rothamsted Research

Rothamsted Research (1993) *92/R/SU/2 Fungicide and Growth Stage - Sunflowers ;* Yields Of The Field Experiments 1992, pp 152 - 154 **- DOI: https://doi.org/10.23637/ERADOC-1-47**

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92/R/SU/2

SUNFLOWERS

FUNGICIDE AND GROWTH STAGE

Object: To test fungicides to control Botrytis cinerea applied in relation to growth stage of sunflowers - Great Knott I.

Sponsors: V.J. Church, H.A. McCartney.

Design: 4 randomised blocks of 8 plots.

Whole plot dimensions: 3.66 x 10.

Treatments: All combinations of:-

1. **GS 4.2** Prochloraz and chlorothalonil applied at growth stage 4.2:

   NONE
   APPLIED

2. **GS 4.5** Prochloraz and chlorothalonil applied at growth stage 4.5:

   NONE
   APPLIED

3. **GS 5.1.1** Prochloraz and chlorothalonil applied at growth stage 5.1.1:

   NONE
   APPLIED

Experimental diary:

25-Aug-91 : B : Straw chopped.
30-Oct-91 : B : Ploughed. (start)
07-Nov-91 : B : Ploughed. (finish)
21-Feb-92 : B : PK as (0:18:36) at 940 kg.
27-Apr-92 : B : NPK as (12:20:20) at 380 kg.
27-Apr-92 : B : Heavy spring-tine cultivated.
04-May-92 : B : Spring-tine cultivated twice.
05-May-92 : B : Treflan at 2.3 l in 260 l.
05-May-92 : B : Spring-tine cultivated, rotary harrowed. Primo, dressed, drilled at 13 seeds per square metre.
07-May-92 : B : Rolled.
13-May-92 : B : Rotalin at 1.6 l in 400 l.
09-Jul-92 : **T** : **GS 4.2** APPLIED: Chiltern Chlorothalonil 500 at 2.0 l in 220 l.
09-Jul-92 : **T** : **GS 4.2** APPLIED: Sportak 45 at 1.1 l in 220 l.
22-Jul-92 : **T** : **GS 4.5** APPLIED: Chiltern Chlorothalonil 500 at 2.0 l in 220 l.
22-Jul-92 : **T** : **GS 4.5** APPLIED: Sportak 45 at 1.1 l in 220 l.
06-Aug-92 : **T** : **GS 5.1.1** APPLIED: Chiltern Chlorothalonil 500 at 2.0 l in 220 l.

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92/R/SU/2

Experimental diary:

06-Aug-92 : **T** : **GS 5.1.1** APPLIED: Sportak 45 at 1.1 l in 220 l.
21-Aug-92 : B : Reglone at 3.0 l with Farmon Blue at 0.33 l in 330 l.
01-Sep-92 : B : Cut by hand, threshed by stationary combine harvester.

Previous crops: W. barley 1990, w. wheat 1991.

NOTES: (1) One plot was sown to a different variety because of a seed shortage. The yield of this plot with treatment combination **GS 4.2** APPLIED, **GS 4.5** APPLIED was not measured. An estimated value was used in the analysis.

(2) Crop was assessed for growth stage from emergence to desiccation. Incidence of Botrytis cinerea was assessed. Seed moisture was assessed during seed development and oil content measured at harvested.

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92/R/SU/2

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

***** Tables of means *****

GS 4.5	NONE	APPLIED	Mean
GS 4.2			
NONE	2.77	2.74	2.75
APPLIED	2.74	2.80	2.77
Mean	2.76	2.77	2.76

GS 5.1.1	NONE	APPLIED	Mean
GS 4.2			
NONE	2.77	2.73	2.75
APPLIED	2.82	2.72	2.77
Mean	2.80	2.73	2.76

GS 5.1.1	NONE	APPLIED	Mean
GS 4.5			
NONE	2.73	2.78	2.76
APPLIED	2.86	2.67	2.77
Mean	2.80	2.73	2.76

GS 4.5	NONE		APPLIED	
GS 4.2 GS 5.1.1	NONE	APPLIED	NONE	APPLIED
NONE	2.74	2.80	2.81	2.67
APPLIED	2.73	2.76	2.91	2.68

*** Standard errors of differences of means ***

GS 4.2	GS 4.5	GS 5.1.1	GS 4.2 GS 4.5
0.028	0.028	0.028	0.040

GS 4.2 GS 5.1.1	GS 4.5 GS 5.1.1	GS 4.2 GS 4.5 GS 5.1.1
0.040	0.040	0.056

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
BLOCK.WP	20	0.080	2.9

GRAIN MEAN DM% 83.1

PLOT AREA HARVESTED 0.00150

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