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98/R/M/5 Effects of Behaviour Modifying Chemicals - Mixed Crops

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98/R/M/5

MIXED 5

EFFECTS OF BEHAVIOUR MODIFYING CHEMICALS

Object: To test insect behaviour modifying chemicals on oilseed rape and to provide an attractive trap crop; turnip rape - Great Harpenden I.

Sponsor: L.E. Smart, J. Martin.

Design: 6 x 6 quasi-complete Latin square.

Whole plot dimensions: 9.0 x 9.0.

Treatments:

CROPCHEM	Crop, chemical and timing:
-	Oilseed rape, no chemical
A	Oilseed rape, 0.5% Agral in 200 l applied 22-Oct-97, 29-Oct-97, 13-Nov-97. AJH/8/158 at 50 g in 10.4 l 25-Feb-98, 31-Mar-98
B	Oilseed rape, 2-Phenylethyl isothiocyanate point source
C	Oilseed rape, (Z)-3-hexen-1-OL point source
D	Oilseed rape, 5-hexenitrile in autumn, phenylacetonitrile in spring, point sources
TR	Turnip rape, no chemical

NOTE: AJH/8/158 is under commercial development, composition undisclosed.

Experimental diary:

26-Aug-97 : B : Ploughed and furrow pressed. Rolled.
27-Aug-97 : T : **CROPCHEM** -, A, B, C, D: Rotary harrowed, Apex, undressed, drilled at 120 seeds per m².
27-Aug-97 : T : **CROPCHEM** TR: Salut, undressed, broadcast at 8.8 kg.
03-Oct-97 : B : Clayton metazachlor at 1.5 l in 200 l.
22-Oct-97 : T : **CROPCHEM** A: Agral at 1.0 l in 200 l.
29-Oct-97 : T : **CROPCHEM** A: Agral at 1.0 l in 200 l.
07-Nov-97 : B : Punch C at 0.4 l in 200 l.
13-Nov-97 : T : **CROPCHEM** A: Agral at 1.0 l in 200 l.
04-Feb-98 : B : 34.5% N at 290 kg.
17-Feb-98 : B : Folicur at 0.5 l in 200 l.
19-Feb-98 : B : Laser at 0.75 l with Chiltern Cropoil at 1.0 l in 100 l.
25-Feb-98 : T : **CROPCHEM** A: AJH/8/158 at 50 g in 10.4 l.
02-Mar-98 : B : 34.5% N at 350 kg.
31-Mar-98 : T : **CROPCHEM** A: AJH/8/158 at 50 g in 10.4 l.
27-Apr-98 : B : Ronilan FL at 1.0 l in 200 l.
16-Jul-98 : B : Reglone at 3.0 l with Headland Enhance LF at 400 ml in 400 l.
24-Jul-98 : B : Combine harvested.

Previous crops: S. barley 1996, w. wheat 1997.

98/R/M/5

- NOTES:** (1) Plant samples were taken in December and February to assess cabbage stem flea beetle and stem weevil damage. Raceme samples were taken in April and May to assess for pollen beetle damage. Pod samples were taken in May and June to assess seed weevil damage.
- (4) The yield of one plot of **CROPCHEM** A was lost because of a combine error. An estimated value was used in the analysis.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

CROPCHEM

-	4.34
A	4.19
B	4.41
C	4.34
D	4.39
TR	1.64

Mean 3.89

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

CROPCHEM

0.124

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

Stratum	d.f.	s.e.	cv%
ROW.COL	19	0.215	5.5

GRAIN MEAN DM% 89.6

PLOT AREA HARVESTED 0.00207