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94/R/RAW/7 Winter Oilseed Rape Density and Chickweed - W. Oilseed Rape

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94/R/RAW/7

WINTER OILSEED RAPE

WINTER OILSEED RAPE DENSITY AND CHICKWEED

Object: To study the effects of crop density and autumn nitrogen on the competitive effects of chickweed (*Stellaria media*) - Appletree.

Sponsor: P.J.W. Lutman.

Design: 2 randomised blocks of 4 x 3 x 2 plots.

Whole plot dimensions: 3.0 x 14.0.

Treatments:

- | | |
|-------------|--|
| 1. CROP DEN | W. rape density, plants per m ² : |
| C1 | 26 |
| C2 | 55 |
| C3 | 118 |
| C4 | 202 |
| 2. WEED DEN | Chickweed density, plants per m ² : |
| W0 | 0 |
| W1 | 119 |
| W2 | 584 |
| 3. AUT N | Fertilizer nitrogen in autumn, kg N: |
| N0 | 0 |
| N1 | 50 |

NOTE: Target chickweed densities were: W0 0, W1 100 and W2 500 plants per m².

Experimental diary:

- 19-Jul-93 : B : Cultivated with rotary grubber.
29-Jul-93 : B : Deep tine cultivated with vibrating tines, 60 cm apart and 45 cm deep.
02-Aug-93 : B : Rolled.
16-Aug-93 : B : PK as (0:18:36) at 1250 kg.
18-Aug-93 : B : Ploughed and furrow pressed, rolled.
20-Sep-93 : T : AUT N N1: 34.5% N at 145 kg.
22-Sep-93 : B : Rotary harrowed.
 : T : CROP DEN C1: Rotary harrowed, Falcon, dressed Lindex-Plus FS, drilled at 57 seeds (50% dead) per m².
 : T : CROP DEN C2, C3, C4: Rotary harrowed, Falcon, dressed Lindex-Plus FS, drilled at 57, 115 and 230 seeds per m² respectively.
 : T : WEED DEN W1, W2: Chickweed seed broadcast by hand.
07-Oct-93 : B : Draza at 5.5 kg.

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Experimental diary:

31-Jan-94 : B : Carbetamex at 3.0 kg in 200 l.
 08-Mar-94 : B : 34.5% N at 162 kg.
 11-Apr-94 : B : 34.5% N at 346 kg.
 21-Jul-94 : B : Landgold Diquat at 3.0 l with Vassgro Spreader at 300 ml
 in 300 l.
 27-Jul-94 : B : Combine harvested.

Previous crops: Potatoes 1992, set-aside 1993.

NOTE: Crop and weed densities were assessed and samples were taken to measure plant growth in winter, spring and summer.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

WEED DEN	W0	W1	W2	Mean
CROP DEN				
C1	3.74	3.23	2.74	3.24
C2	4.12	3.82	3.48	3.81
C3	3.76	3.31	3.73	3.60
C4	3.77	3.69	3.63	3.70
Mean	3.85	3.51	3.39	3.59
AUT N	N0	N1	Mean	
CROP DEN				
C1	3.00	3.48	3.24	
C2	3.81	3.80	3.81	
C3	3.55	3.65	3.60	
C4	3.78	3.62	3.70	
Mean	3.53	3.64	3.59	
AUT N	N0	N1	Mean	
WEED DEN				
W0	3.83	3.87	3.85	
W1	3.50	3.53	3.51	
W2	3.28	3.51	3.39	
Mean	3.53	3.64	3.59	
WEED DEN	W0	W1	W2	
CROP DEN	AUT N	N0	N1	
C1		3.45	4.03	3.25
C2		4.16	4.08	3.71
C3		3.80	3.71	3.22
C4		3.91	3.64	3.81
				3.21
				3.92
				3.40
				3.58
				2.29
				3.57
				3.62
				3.62
				3.19
				3.39
				3.84
				3.64

94/R/RAW/7

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

CROP DEN	WEED DEN	AUT N	CROP DEN WEED DEN
0.115	0.099	0.081	0.198

CROP DEN	WEED DEN	CROP DEN
AUT N	AUT N	WEED DEN
		AUT N
0.162	0.140	0.280

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	23	0.280	7.8

GRAIN MEAN DM% 85.9

PLOT AREA HARVESTED 0.00253