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97/R/BW/1 Beta-acids, Aphids and Bydv - W. Barley

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97/R/BW/1

WINTER BARLEY

BETA-ACIDS, APHIDS AND BYDV

Object: To investigate the effects of beta-acids from hops on the aphid colonization and BYDV infection on winter barley - Osier.

Sponsors: B.J. Pye, J.A. Pickett, R.T. Plumb.

Design: 4 randomised blocks of 4 plots split into 3 sub-plots, systematically arranged.

Whole plot dimensions: 3.0 x 10.0.

Treatments:

Whole plots

APHCONT	Aphid control and timing:
-	None
C	Cypermethrin in October
F	Formulated control applied on three occasions in autumn
BA	Beta-acids applied on three occasions in autumn

NOTE: Composition of beta-acids application was 10% beta-acids, 10% water, 80% ethanol and of formulation, 20% water, 80% ethanol.

Experimental diary:

15-Aug-96 : B : Ploughed and pressed.
02-Sep-96 : B : Rotary harrowed, Puffin, dressed Raxil S at 350 seeds per m².
17-Oct-96 : T : APHCONT BA: Beta acids applied in 10.4 l.
 : T : APHCONT F: Formulation applied in 10.4 l.
22-Oct-96 : T : APHCONT C: Ambush C at 250 g in 10.4 l.
01-Nov-96 : T : APHCONT BA: Beta acids applied in 10.4 l.
 : T : APHCONT F: Formulation applied in 10.4 l.
14-Nov-96 : T : APHCONT BA: Beta acids applied in 10.4 l.
 : T : APHCONT F: Formulation applied in 10.4 l.
22-Nov-96 : B : Landgold DFF 625 at 2.0 l in 200 l.
07-Mar-97 : B : 34.5% N at 118 kg.
26-Mar-97 : B : 34.5% N at 240 kg.
18-Apr-97 : B : Contrast at 0.625 l in 300 l.
21-Jul-97 : B : Combine harvested.

Previous crops: W. barley 1995, set-aside 1996.

NOTE: Observations of BYDV were made in June.

97/R/BW/1

GRAIN TONNES/HECTARE

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

APHCONT

-	5.40
C	5.19
F	5.15
BA	5.81

Mean	5.39
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*** Standard errors of differences of means ***

APHCONT

0.537

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	9	0.758	14.1

GRAIN MEAN DM% 89.3

SUB-PLOT AREA HARVESTED 0.00720