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Yields of the Field Experiments 1994

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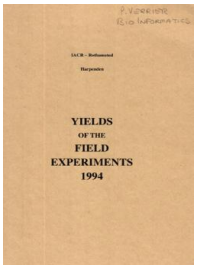

94/R/CS/311 Effects of Shallow Straw Incorporation - W. Wheat

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94/R/CS/311

EFFECTS OF SHALLOW STRAW INCORPORATION

Object: To study the effects of straw incorporation by rotational ploughing, with shallow cultivation in the intervening years, on diseases and yield of winter wheat - West Barnfield I.

Sponsors: J.F. Jenkyn, R.J. Gutteridge, A.D. Todd.

The tenth year, w. wheat.

For previous years see 85-93/R/CS/311.

Design: 6 x 4 criss-cross split into 2 sub-plots. Originally a single replicate of 3 x 2 x 2 x 2 x 2.

Whole plot dimensions: 4.5 x 12.0.

Treatments: Combinations of:-

Whole plots

1. **STRAW** Treatments to straw of previous wheat:

BURNT	Burnt (duplicated)
BALED	Baled and removed (duplicated)
CHOPPED	Chopped (duplicated)

Criss-cross with

2. **CULTIVTN**

SHA CULT	Shallow tine cultivated to 10 cm depth (triplicated)
PLOUGHED	Ploughed to 23 cm depth

Experimental diary:

26-Aug-93 : **T** : **STRAW** BALED: Straw baled and removed.
: **T** : **STRAW** CHOPPED: Straw chopped with trailed chopper.
27-Aug-93 : **T** : **STRAW** BURNT: Straw burnt and ash incorporated with discs.
02-Sep-93 : B : PK as (0:18:36) at 300 kg.
18-Oct-93 : **T** : **CULTIVTN** PLOUGHED: Ploughed.
25-Oct-93 : **T** : **CULTIVTN** SHA CULT: Heavy spring-tine cultivated twice.
26-Oct-93 : B : Heavy spring-tine cultivated.
27-Oct-93 : B : Heavy spring-tine cultivated, rotary harrowed, Soissons, dressed Cerevax, drilled at 380 seeds per m^2.
28-Oct-93 : B : Draza at 5.5 kg.
19-Apr-94 : B : Briotril Plus 19/19 at 2.0 l with Hytane 500 SC at 2.0 l in 200 l.
23-Jun-94 : B : Cyclone at 1.0 l with Mallard 750 EC at 0.5 l in 200 l.
06-Aug-94 : B : Combine harvested.

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94/R/CS/311

NOTE: Established plants were counted in January. Numbers of ears of volunteers and grass weeds were counted in July and components of yield were measured. Crop was sampled in July to measure diseases affecting the stem bases and roots.

GRAIN TONNES/HECTARE

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

CULTIVTN	SHA CULT	PLOUGHED	Mean
STRAW			
BU	8.94	9.19	9.00
BA	5.16	8.44	5.98
CH	5.33	8.47	6.11
Mean	6.48	8.70	7.03

GRAIN MEAN DM% 86.5

SUB PLOT AREA HARVESTED 0.00276

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