Yields of the Field Experiments 1975

Conventions

Rothamsted Research

004

CONVENTIONS 1975

For each experiment current treatments are shown, together with the factor and level names which are used in the tables. The program used for the analyses of these experiments limits level names to eight characters, and factor names similarly, though a suffix of up to 3 digits in brackets may be appended if required.

For each experiment, other than annuals, references are given to previous years. These refer to the '(Numerical)(Results) Yields of the Field Experiments' - (t) indicates a year when treatments were described. Since 1973 treatments have been described annually for all experiments and (t) is not used for these years.

For the classical and some long-term experiments reference is made to 'Details' - a separate publication, giving a full description of treatments until 1967, with full title 'Details of the Classical and Long Term Experiments up to 1967'.

The following conventions are observed unless otherwise stated.

All areas are in hectares. All plot dimensions are in metres.

All seed rates, rates of application of fertilisers, sprays etc. are per hectare.

All yields and plant numbers are per hectare.

The following abbreviations are used in variate headings:

Wheat, barley, oats, rye, beans etc.
    Grain: Grain (at 85% dry matter)
    Straw: Straw (at 85% dry matter)

Sugar beet
    Roots: Roots (washed)
    Sugar %:   Sugar percentage

All crops
    Mean D.M. %:   Mean dry matter % as harvested

For any other crop, details of abbreviations are given as necessary.

'Nitro-Chalk' refers to the grade containing 25% N.

Compound fertilisers indicated thus - (20:10:10) = compound fertiliser (20% N, 10% P_2O_5, 10% K_2O), granular unless otherwise stated.

The compound fertiliser (13:13:20) used in our experiments is the grade containing sulphate of potash.

Treatment of cereal seed with organomercury and gamma BHC should be assumed in this report, exceptions are noted.

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Harvest Areas for Cereals

On most of those cereal experiments at Rothamsted and Woburn (but not Saxmundham) which are harvested by combine the 'blank-row' technique is used to distinguish the areas taken for yield from the discard areas. When seed is drilled in rows 7in. (18 cm.) apart (the most common arrangement), appropriate coulters are prevented from sowing and 8 or 16 rows are left for yield according to the cutter-bar width of the combine to be used. If the row-spacing is other than 7 in. a similar arrangement is used but with a different number of rows.

The ends of plots are separated from each other or from headlands by 3 ft (91 cm.) fallow paths made after the crop has established.

The 'Area harvested' in the 'Yields', when the blank-row technique is used, is the product:-

number of rows harvested x distance between rows x length of rows.

A series of experiments by Widdowson at Rothamsted (68/Da/9, 68/Db/1, 69/R/W/13, 69/R/B/5, 70/R/WW/3) showed that on average the yield of 16 rows (50 ft (1.5 m) long) was 7.8% greater with blank rows than without.

If no rows are left blank and the plot is wider than the combine harvester so that discards are left uncut, the 'Area harvested' is the product:-

width of cutter bar x length of rows.

If the plot is narrower than the combine so that the whole area between paths is cut, the 'Area harvested' is the product:-

number of rows x distance between rows x length of rows.

We do not apply the adjustment used by some workers who take the harvested area as width x length where each is measured to the centre of 'paths' up to a maximum of 18 in (46 cm).

Tables of means

Tables of means are now presented directly from computer output. Both factor and level names are present in upper case characters. Vertical and horizontal lines are omitted e.g.:-

FACTOR C	LEVEL C1		LEVEL C2		LEVEL C3	
FACTOR B	LEVEL B1	LEVEL B2	LEVEL B1	LEVEL B2	LEVEL B1	LEVEL B2
FACTOR A						
LEVEL A1	*	*	*	*	*	*
LEVEL A2	*	*	*	*	*	*

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Not as hitherto:-

<div align="center">FACTOR C</div>

FACTOR B	Level C1		Level C2		Level C3	
	Level B1	Level B2	Level B1	Level B2	Level B1	Level B2
FACTOR A						
Level A1	*	*	*	*	*	*
Level A2	*	*	*	*	*	*

There are other minor differences from previous years in the location of information and of terminology. In particular the standard errors per whole (or sub plot) are now printed under the heading 'Stratum Standard Errors and Coefficients of Variation'. BLOCK.WP refers to those previously labelled 'Per plot' or 'Per whole plot', and BLOCK.WP.SP to those labelled 'Per sub plot'.

<div align="center">Standard errors</div>

NOTE: This report gives standard errors of differences, not of means.

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