

T B Wood & F. J. M. Stratton. J. Agric Sci Vol 3 417-440

The Interpretation of Experimental Results.

✓ 1850.
~~1000~~ 200 plots mangolds $\frac{1}{1000}$ acre each no yields given

H Evans: Some Preliminary data concerning the best shape and size of plot for field experiments with sugarcane

Depr of Agric. manuscripts 1934

Sugarcane Research Station. Bull. No 3.

✓ Sugarcane fields of ~~1200~~ 1200 wide stools
Size of field not given.

Batchelor, Parker and Mc Bride:

Studies preliminary to the establishment of a series of fertilizer trials in a bearing citrus grove.

Agric Exp Sta.

Citrus Exp Sta.

various

Univ. of Calif. Bulletin 451.

1928

Probs. same as Hilgardia 1922-7.

not same as B&R. J A Res Vol 12

A B Culham, J Steele & G G Audenleek.

variations in the yields of cacao trees at Asmanshi
Experiment Station

Mitra S.K. & Ganguli P.M. Uniformity trial in rice: Proc. 21st Ann.

Indian Science Congress. Bombay p 71 (1934)

Vaidyanathan M (1934) do. in sugar-cane. 1069

Kulkarni R.K. and S. Bose: (sorghum): India Jour Agri
Sci. (in press)

Kadam & Patel

Kulkarni, ~~R.K.~~ Bose and Malalander, (1936)

Indian Jour. Agri Sci.

The influence of shape and size of plots on the
effective precision of field experiments with
sorghum.

160 plots each ($\frac{1}{160}$) acre (8 rows 15 m. x 15 m.)

for 1930-1-2

All plots full.

$5 \frac{1}{2} \times 15 \sim 30$
 $\frac{4 \frac{1}{2} \times 15}{2} = 33.75$

(1.33 + 22.5)

Gorski M u. Stefanow M.

Die Anwendbarkeit der Wahrscheinlichkeitsrechnung bei
Feldversuchen.

Landw. Versuchstationen Vol 90 1917 pp 225-240

Oats 1) 200 plots (3 yields missing) each 9 dm.
300 plots 9 dm.
shape of plot not given.

R. K. Kristensen : Anlaeg og Opgstrelse af markforsøg
Barley 234 plots ~~size~~ [?] (6.24 x 8.79)
Yields given metres.

~~Z. Jankowski~~ Z. Jankowski
Potatoes : single rows.

unpublished.
see Nagwa.

1929

Stefan ~~or~~ Barbacki : ~~manuscript~~ Refc.

N content of barley 96 sq. plots 1 m. x 1 m

Engl. little ~~field~~ Data given
Studies in barley III Variation and inheritance

of nitrogen content of the grain of pure lines and
hybrids

I Polish English summary

Lehmann: A.

Dept. of Agric. Mysore State

1900/01 - 1907/08

(18)

Ragi (*Eleusine coracana*)

yields for 3 years (plots $\frac{1}{10}$ acre)

Tedin

Field I

R K Kristensen

(Askov)

Teds. for Planteavl 31

6.2 x 8.8 m

Barley

(1925)

II

III

merce small wheat - mengold.
given by Harnes in

American Naturalist (1915)

Vol 49 p435

IV

E G Montgomery :

Wheat

V

B R Hansen : Teds for

~~1906~~

Planteavl (1906) v12 p347 5x5m.

Timothy hay

VI

Harnes . J. Agric. Res. v19

23 $\frac{1}{3}$ x 49 $\frac{1}{4}$ ft

Alfalfa

279-314

1st & 2nd cuts

VII

do

3rd cut.

VII

NA Hansen

Teds for Planteavl.

25 plots

1907 oats

1915.

gulf ne 50 sq metre

1908 rye

1909 barley

1910 swede

1911 barley.

VIII

Stückland, A G., Foster, H. C. and Vasey, A. J.: A Vine Uniformity trial
in J. Agriculture of Victoria Vol 30: No 12 pp 584 -
1932

Grapes 200 vines 8 feet apart in rows 10 ft. apart. Field trial ✓

Shen, Li-Yung: Agricultura Sinica. 1934 Vol 1 107-50

Rice

To Morgan:

Some Experiments to determine the uniformity
of certain plots for field tests (1908)

Proc Amer Soc Agron Vol 1 p 58-67

(13) ✓

Wheat followed by fodder corn

63 plots each (15 x 112½) feet. (½ ac. ?)
yields given

Montgomery E.G. Variation in yield and methods of arranging
plots to secure comparative results. 1911

(14) ✓

Nebraska Experiment Station 25th Annual Report

1911 pp 164-180.

Wheat

Data given: same as EGM 1913 US Dept Bull
yields & N contents 269.

Farrell

F D Bates

US Dept of Agriculture Bureau of Plant Industry
Circular No 109 1913

Interpreting the variation of plot yields.

(14) ✓

Wheat 1911 66 plots (¼ acre)

Oats 1911 68 .. (¼ acre)

Sugar-beet 1911 46 .. (¼ ..) two fields

alfalfa 1912 - - - same field

alfalfa 1912 10 .. (¼ ..) limited

data not given.

Yields given

in Adams &

Schofield

1920.

J A Harris Practical Universal.

cited
Data ~~year~~ : watson's wheat . (1913) Given

Merce & Hall's mangolds

TL Lapon's potatoes

Stewart

Holtsmark Hansen's Timothy Hay.

Landw. Vers. Stat. Bd. 65 Hefh. 1/2 pp 1-22

alfalfa : Montana exp. Sta 1912-14.

46 plots ($\frac{1}{4}$) ~~per~~ acre.

(sometimes $\frac{1}{2}$ $\frac{3}{4}$ or $\frac{1}{4}$ plot yields given)

data of F. D Farrell.

F. I. Stewart : missing hills in potato fields: their effect upon the yield

New York Agricultural Experiment Station

Bulletin No 459. March 1919.

(15) ✓

Potatoes.

420 plants, every fifth hill missing,

Yields per plant and number of tubers counted
given.

Holtsmark G. u. Larsen B.R.

1904

Über die Fehler, welche bei Feldversuchen durch die Ungleichartigkeit des Bodens ~~der~~ bedingt werden.

Landwirtschaftlichen Versuchs-Stationen Bd. 65 Hefh. 1-2

pp 1-22.

Timothy Hay : 240 plots (5 metres square) yields given.

4) NA Hansen: Provedyrkning paa Forsøgstationen ved Aarslev.
Tids. for Landbrugets Planteavl (1914) 21, 353.

1) 30 plots

1906-11

✓

1907 oats 1908 rye 1909 barley 1910 mangolds 1911
barley

2) 120 plots

1906 oats 1907 barley, 1908 "seeds", 1909 rye.
fields given

5) also ~~NA Hansen~~

Grain				Straw			
1933	1934	1935	1936	1933	1934	1935	1936
24.9	34.4	24.9		46.9	52.7	52.7	
B. 32.8	35.7	29.6		64.7	59.2	47.1	
Omitting B. 23.6	34.2	27.6	25.1	43.9	51.6	53.6	47.4

m.A.
Bailey and Troughton: T. 1926: An account of experiments carried out to determine the experimental error of field trials with cotton in Egypt.

Mun. Agric. Egypt. Tech. & Serv. Bull 63.

Davies J.G. 1931. The experimental error of the yield from ^{1/1000 acre} 760 plots (~~2000 ft~~) small plots of natural pasture fields given

Comm. Serv. & Indust. Res (Aust) Bull 48

Smith H.F. A blank experiment with very small plots of wheat. 0.5 sq feet 1080 plots

Wiebe: G A. 1935 Variation and correlation in grain yield among 1500 wheat nursery plots

J Agric Res. 50. 331-357

~~0.5 sq feet. 1080 plots~~

15 sq. feet 1440 plots.

3) CH Goulden: 304 ^{plots} 2400 square yards of wheat barley data average.
FJ Pannell: Trees are cocoa trees. since 1914

$$m + \sigma r = \bar{x} + st$$

$$f(t, r) dt$$

$$\int \frac{1}{f} \left(\frac{df}{dr} \right)^2 dt$$

Lyon T.L.: 1912: Some experiments to estimate error in field
 plat. tests. Proc Amer Soc Agron vol 3 p 89-114
~~1000 x~~ 1 12 feet rows.

Stewart F.C. 1919. missing hills in potato fields: Their effect upon
 the yield. N.Y. Agr. Exp Sta Bul. 459
 p 45-69

Kresselbach: J. Amer Soc Agron vol 11 Nov p 235-41

Montgomery E.G. 1913. Experiments in wheat breeding: experimental
 error in the nursery and variation in nitrogen and
 yield. U.S. Dept. Agric Bur. Plant. Indust. Bul 269

Stockberger W.W.: 1916: Relative precision of formulae for calculating
 normal plot yields. J. Amer Soc Agron. vol 8 NO 3 p 167-175
 Hops. 30 rows (1 210 feet rows) 1909-14 *yield given each year.*

Combs G.E. & Grantham J.: 1916: Field experiments and the
 interpretation of their results: Agr. Bul. Fed Malay
 State vol 4 NO 7 p 206-16.
 Rice. ($\frac{1}{2} \times \frac{1}{2}$ chain)

Holtzman G & Larsen B.R. 1906

Über die Fehler, welche bei Feldversuchen durch die
Ungleichartigkeit des Bodens bedingt werden.

Landw. Vers. Stat. Bd 65 Heft 1/2 p 1-22.

Timothy hay.

Smith L.H. 1910 Plot arrangements for variety experiments
with ^{corn} ~~corn~~.

P
vif ✓

Proc. Amer. Soc. Agron. V. 1. p 84-9

Lehmann A 1907

Seventh Annual Report of the Agricultural Chemist for the
year 1905-6. Department of Agric. Mysore State
53 p. Bangalore Paddy.

Stockberger W.W. 1912. A study of individual performance
in hops. Ann. Report Amer. Breeders' Assoc.
vol 418 p 452-7

E.C.C. Transvaal.

D Mac Donald: ~~Two cotton uniformity trials~~ (figs. ready in Aug. will be sent then)

H.C. Duckett: ^{Cotton} (unpublished data) 490 plots (1 row x 7 yds) 1936
data with age

(8)

S.M. Gilbert: ~~Promised~~ yields of trials

A.R. Saunders:

maize

no pl.

(9)

(1)

300 plots (1 row x 20 yds)

(10)

(2)

250 " (1 row x 10 plots)

unpublished data

Statistical methods with special reference to field experiments

A.H.M. Kinsley

Cotton 520 plots (1 row x 25 feet)

1935

poor yield

unpublished

(11) ✓

(12) ✓

B.T.

5 Trials, each of about 160 plots.

1921-3,

size of unit (20 ridges x 7 metres)

about $\frac{1}{2}$ acre.

yield, grain

200
+ 200
400

1120
60
1720
200