

# Uniformity Trials

✓ J Agric Res. K4 1913 - 1934 ✓

Trop Agr. C6 No

✓ J Agric Sci. K4 1905 - 6 - 1934 ✓

✓ J Amer Soc Agron. Proc. K4 1913 - 34 ✓

Victoria J Depr Agric

Res. Bull Nebraska Agric Sta

Scientific Agric K3

US Depr Bulletin

✓ H. J. Gardia J G8 1923 - 34 ✓

West Virginia Agr. Exp. Sta. Bull

Experimental Error

Variations in Fertility

Uniformity Trials

Plot technique

Border rows or effect.

$$\begin{array}{r} 1545 \\ + 261 \\ \hline 284 \\ 977 \\ \hline 1261 \end{array}$$

$-\frac{3}{2} - \frac{1}{2}$

$-3 - 1 + 1 + 3$

2

$y - \bar{y} = a(x - \bar{x})$

$y - 4a = \frac{b}{20} (x - 2) \quad 770$

(20)

$\frac{770}{20} = 38.5$

$20 + \frac{20(2-4a)}{b} \quad \text{intercept} = 2 \text{ days}$

2 12.

$y - \bar{y} = B(x - \bar{x})$

$\frac{.5 - \bar{y}}{13}$

$\frac{2 - 4\bar{y}}{40}$

$-.369 \times 107$

8.043

4.968

24.25

8

25

1.227

1.227

227

32.172

8.043

428.

8

J.A.S.A.

J.A.R.

J.A.S.

1913-14

15-16

17-18

19-20

21-22

1923

1924

1925

1926

1927

1928

1929

1930

1931

1932

1933

1934

1913-14

vol. 1-2

1914-15

3-4

15-16 1.2.

5

1916 2.3.

6

1916

7

1917

8

1917

9

1917

10

1917

11

1918

12.13.14.15.

1919

16.17

1919-20

18

1920

19

1920-21

20

1921

21.22

1923

23.24.25.26.

1924

27.28.29

1925

30.31.

1926

32.33.

1927

34.35.

1905-6

1

1907-8

2

1908-10

3

11-12

4

12-13

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1914

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15-16

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16-17

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18-19

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1920

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17

28

18

29

19

30

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31

21

32

22

33

23

526

129

519

167

52

8261 02 777

1928 36.37.  
 1929 38.39.  
 1930 40.41.  
 1931 42.43.  
 1932 44.45.  
 1933 46.47.  
 1934 48.49.

J Amer. Soc. Agron.

- Summerby R. . A study of sizes of plots, numbers of replications and the frequency and methods of using check plots, in relation to accuracy in field experiments. Vol 17 1925  
oats 1 row x 15 feet .
- McClelland C.K. . Some determinations of plot variability Vol 18 1926  
oats ( $\frac{1}{10}$  acre) corn 1 row x 66 feet .
- Garber R.J. & Pierre W.H. : Variation of yields obtained in small artificially constructed field plots.  
soybeans 2 wheat.  
(2 rows x 28 ins) (4 rows x 28 ins) .
- Reynolds E.B., Killough D.T., Vantine J.T. : Size, shape and replication of plots for field experiments with cotton. Vol 26 1934  
cotton. 1 row x 36 inches
- ~~vide~~  
X ~~Montgomery E.G.~~ 1912 ~~Nebr Agr. Exp. Sta 25<sup>th</sup> Ann. Rep. 164-80~~  
~~wheat~~
- Harris J.A. . Practical Universality of field heterogeneity as a factor influencing plot yields J Agne Res. V 19 (1920).  
wheat, mangolds, potatoes, hay, oats, rice, corn.
- X Croombs G.E. & Grantham J. . Field experiments and the interpretation of their results : Agr. Bull. Fed Malay States Vol 4 no 7  
(1916) rice .  
( $\frac{1}{2}$  chain x  $\frac{1}{2}$  chain)

# Journal of Agric. Sci.

Hall A.D.	1	1905-6	p. 241	fertil.
Russell F.E.	1	"	261	fertil
Lipman J.G.	3	1908-10	297	No.
<del>Haines W.B.</del>	<del>4</del>	<del>1911-12</del>	<del>107</del>	
Hall A.D.	4	1911-12	339	No.
Sebelien J.	10	1920	415	Design.
Berry R.A.	4	1924	407	Per expts on sat.
Haines W.B.	15	1925	387	Dynam.
Page H.J.	16	1926	551	floodings
Eelen T.	18	1928	163	
<del>Clapham A.R.</del>				

11 out

# Journal of Amer Soc. of Agron.

Salmon, Cecil.

Love, H.H.	11-12.	1919-20.	p. 212.	exp error
Kriessbach, T.H.	11-12	1919-20	p. 235.	do.
Hayes, H.K.	15.	1923	p. 177.	"
Musgrave, G.W.	16.	1924	p. 633	competition in potatoes
Summerly, R.	17.	1925.	p. 140.	? ✓
Musgrave, G.W.	17.	1925.	p. 769.	corn <sup>12</sup> bet qts in oats.
Payne, R.A.	18.	1926.	p. 31.	soil fertil. program. Hart.
West, B.O.	18	1926.	p. 90.	soil detenor <sup>12</sup>
Musgrave, G.W.	18.	1926	p. 166.	Corn in <del>pot</del> potatoes
McLelland, C.K.	18.	1926.	p. 566.	check plots
"	18	1926.	p. 8 <sup>19</sup> <del>23</del> .	✓
Hulbert, H.W. (Notes)	19.	1927	p. 585.	border effect variety tests
P. J. Olsen	20	1928	p. 83.	comp <sup>12</sup> corn
Edland, T.E.	20	1928.	p. 93.	✓ (already in)
Jones, J.P.	20	1928.	p. 400.	check plots
Love, H.H.	20	1928	p. 426.	planis expts. (repeats against randomness <sup>12</sup> )
Brewster, H.E.	23	1931	p. 469.	com. var <sup>12</sup> in stand.
Sprague, H.B.	23	1931	p. 516.	effect of barley uniform. of spacing in
Garber, R.J.	25.	1933	p. 98.	✓ <del>comp</del>
Hollowell, E.A.	25.	1933.	p. 779.	Border effect on clover & alfalfa.
Daley, F.L.	26.	1934.	p. 25.	Outly in exp fields.
McLelland, C.K.	26.	1934	p. 491.	Border effect: oats.
Denning, G.W.	26	1934	p. 615	" " sugar beet
Magistad, O.C.	26	1934	p. 631	✓ (already in)
Reynolds, E.B.	26	1934	p. 725	✓



# Journal of Agric. Res.

Surface F.M.	$\frac{5}{V} 2$	1915-16	P.	1039	Correction for soil bet
Army A.C.	11	1917		399	variety tests
" "	15	1918		251	" "
Harris J.A.	19	1920		279	✓
Army A.C.	21	1921		183	border effect rats
Richey F.D.	27	1924		79	Adjusting for soil bet of R.A.F.
Cole J.S.	32	1926		991	Border effect
Lantwight W.B.	32	1926		1045	—
Richey F.D.	32	1926		1161	Adjust. for soil bet. of R.A.F.
Armstrong G.M.	47	1933		1167	Cotton fibers expt.
Robertson D.W.	48	1934		157	Border effect
Daley F.L.	48	1934		505	erosion
Stringfield G.H.	49	1934		991	variety test

Bibliography of Uniformity Trials. (possible)

W. ( $\frac{1}{500}$  acre)  
M. ( $\frac{1}{200}$  acre)

X  
mangel  
wheat.

✓ Mercer W.B. Hall A.D. The experimental error of field trials J. Agr. Sci. 4 (1911) (107-132)

✓ Faulkner O.T. 1923 ~~1925~~ Unavoidable error of field experts. Agric J. India 18, 1923 (238-48)

✓ Mahalanobis P.C. 1925 The probable error in field expts in agriculture

✓ Agric J India 20, 1925 (96-116)

✓ Iliffe. R.O. & Math, B.V. 1928

The conduct of field experts.

✓ Madras Dept. Agric Bull 89 1928 pp 51. 48 references.

Kuznetsov E. 1928

The exactness of field trials

✓ J Exp. Landw. Soudost Eur. Russl. 5 1928 (305-322)

✓ Beckett W.H. Fletcher S.R.B. 1929

A uniformity trial with maize.

Gold Coast Dept. Agric. Year book 1928 (222-226)

Wheat X  
(1/160 acre)  
✓ Foster H.C. Vasey A.J. 1929

CS Experimental error of field trials in Australia

✓ Victoria J. Dept. Agric 27. 1929 (385-95)

(1 row x 22 feet) X  
✓ Kirk R L.E. 1929

Field plot technique with potatoes with special reference to the Latin Square

✓ Scient. Agric. 9 (1929) (719-29)

Kindermann M. 1930

Investigation of the most favorable size of plot

~~Land~~ Land-Jahob 72 1930 (141-74)

X Sanders H.G. 1930

Borden R.J. 1931

Studies in experimental technique - shape, size and replication.

Hawaii Plant. Rec. 35 1931 (295-304)

X ✓ Christides B.G. 1931

The importance of the shape of plots in field experimentation.

J. Agr. Sci. 21 1931 (14-37)

Davies J.G. 1931

The experimental error of the yield from small plots of "natural" pasture

Council Sci. Ind. Res. Bull. 48 1931 pp 21

corn X ✓ Garber R.J. Mc Ilvanie T.C. Hoover M.H. 1931

oats  
wheat ( $\frac{1}{51}$  acre)

A method of laying out experiment plots

J. Amer. Soc. Agron. 23 1931 (286-98)

X ✓ ~~Land~~ Lord L 1931

A uniformity trial with irrigated broadcast rice

J. Agne Sci. 21 1931 (178-86)

X ✓ Tedin O 1931

The influence of systematic plot arrangement upon the estimation of error in field experiments.

J. Agne Sci 22 1931 (191-208)



Re Roberton D.W. 1934

Border effect in irrigated plots of Marquis wheat  
receiving water at different times

J. Agric. Res. 48 1934 (157-66)

Summerby R.

Thompson R.C. 1924

Size, shape, etc in sweet potatoes field-plot expts.

J. Agric. Res. 48 1934 (349-99)

Lehmann O. 1933

Lack of uniformity of soils even over small areas.

Mo. Mesog. & Nutat. 6 1933 (458-66)

Stephens J.G. & Vsmall H.N. 1928

Experimental methods and the probable error in field  
experiments with sorghum. 1 row x 1 row

J. Agr. Res. 37 1928 (629-46)

Parnett F.R. 1919

Odland T.E. Gartner R.J.

Size of plot & no. of replications in field expts with  
soy beans.

J. Am. Soc. Agron. 20 1928 (94-108) (1 row x 8 feet)  
(10 rows x 20 rods)

Tjortsen S.H. 1932

Kalamkar R.J. 1932 (pots.)

Reynolds E.B. Killough D.T. Vantrise J.T. 1934

Size shape & replication of plots for field expt with  
cotton

J. Amer. Soc. Agron. 26 1934 (725-34)

Borden R.J. 1932

Plot size & replications for field experts. with irrigated sugar cane.

Int. Soc. Sugar Cane Tech. Fourth Cong. Porto Rico Bull  
10 1932 pp4.

Borden R.J. 1930

A study of the p.e. of a single plot from field tests with sugar cane in Hawaii

Hawaina Planters' Record 34 1930 (467-76)

X Innes F.R.

X ✓ Innes F.R. & Raleigh, S.M. 1933.

Further studies of size & shape of plot in relation to field experts with sugar beet. (1 row x 33 feet)

J Agric Res. 47 1933 (591-8) (60 rows x 330 feet)

X Eden, T. 1931 1932 - ? J. Agric. Sci.

X Cheesman E.E. Pound, F.J. 1932

Uniformity Trials on Cacao

Trop. Agric (W.I.) 9 1932 (277-88)

X Murray R.K.S.

X - Magstad O.C. Farden C.A. 1934

(4 rows x 75 feet)

Exp. error in field experts. with pineapples

J Amer. Soc Agron. 26 1934 (631-44)

X ✓ Lambert E.B. 1934

Size & arrangement of plots for yield tests with cultivated mushrooms. (in beds <sup>only</sup> 2 feet wide)

J. Agric Res. 48 1934 (971-80).