

*Comparisons between Super 2 cwt. and Super 1 cwt.*—Average increase of super 2 cwt. over super 1 cwt. equals 0.25 bushels per acre.

Super 2 cwt. was better than super 1 cwt. to a significant extent in two experiments (Nos. 19 and 20) out of fourteen. In Experiment 21 a definite depression in yield occurred as a result of using the larger quantity of super.

*Comparison between Super 2 cwt. plus Nitrate of Soda 1 cwt. and Super 1 cwt. plus Nitrate of Soda 1 cwt.*—Average decrease of super 2 cwt. plus nitrate of soda 1 cwt. below super 1 cwt. plus nitrate of soda 1 cwt. equals 0.1 bushel per acre. (Note.—If the decrease in Experiment 32 is disregarded there is a superiority of 0.4 bushel in favour of super 2 cwt. plus nitrate of soda 1 cwt.)

In three experiments (Nos. 19, 20, and 26) the treatment containing the greater quantity of super shows a significant superiority; in Experiment 32 a definite depression has resulted. (A comment is made regarding this under Table 32.)

*Comparison between Super 1 cwt. plus Lime 2 cwt. and Super 1 cwt.*—Average increase of super 1 cwt. plus lime 2 cwt. over super 1 cwt. equals 0.1 bushels per acre. In Experiments 22 and 28 the addition of lime has caused significant increases. The soils in the districts where these experiments were conducted respond markedly to lime, although some of the other experiments are on lime-response soils and do not show any appreciable effect from the use of 2 cwt. of lime.

#### Comparison between Responses from Super and Super plus Nitrate of Soda in 1928-29 Season and the same Manures in 1929-30.

On eight farms the following treatments were under trial in 1928-29 and again in 1929-30: (a) No manure, (b) super 1 cwt., (c) super 1 cwt. plus nitrate of soda 1 cwt.

Table 35.—Differences in Yield in Bushels per Acre between (a) Super 2 cwt. and Super 1 cwt., (b) Super 2 cwt. plus Nitrate of Soda 1 cwt. and Super 1 cwt. plus Nitrate of Soda 1 cwt., (c) Super 1 cwt. plus Lime 2 cwt. and Super 1 cwt. (Type B Experiments.)

Experiment No. in Text.	Super 2 cwt.— Increase or Decrease in Relation to Super 1 cwt.	Super 2 cwt. plus Nitrate/Soda 1 cwt.— Increase or Decrease in Relation to Super 1 cwt. plus Nitrate/Soda 1 cwt.	Super 1 cwt. plus Lime 2 cwt.— Increase or Decrease in Relation to Super 1 cwt.	Experiment No. in Text.	Super 2 cwt.— Increase or Decrease in Relation to Super 1 cwt.	Super 2 cwt. plus Nitrate/Soda 1 cwt.— Increase or Decrease in Relation to Super 1 cwt. plus Nitrate/Soda 1 cwt.	Super 1 cwt. plus Lime 2 cwt.— Increase or Decrease in Relation to Super 1 cwt.
19	<b>2.5</b>	<b>2.1</b>	-0.2	26	-0.6	<b>2.1</b>	-0.7
20	<b>2.3</b>	<b>3.0</b>	0.3	27	0.2	0.5	-1.0
21	-1.4	-0.7	1.2	28	-0.7	-0.7	<b>1.2</b>
22	1.2	-0.2	<b>2.0</b>	29	0.6	0.8	-0.5
23	-0.2	-0.8	0.0	30	-2.3	-1.6	-1.3
24	0.2	0.3	0.0	31	1.4	0.5	-0.9
25	0.5	0.1	-0.2	32	0.2	-6.6*	-1.9

\* See comments on Table 32.

NOTES.—Figures printed in heavy type represent statistically significant differences. A minus sign preceding a figure indicates a decrease.