

Peas.

TABLE No. 4.—Fertilizer Experiment with Peas.

| Variety. | Length of Row. | Plot A. Manure alone 30 tons per acre. | | Plot B. Manure 15 tons per acre, superphosphate 320 lbs., muriate of potash 130 lbs. | | Increase in yield over manure alone. | |
|--|----------------|---|-----|--|-----|---|-----|
| | | Row A. Cost of Ferti- lizer, per row, 9 cents. | | Row B. Cost of Fertilizer, per row, 6½ cents. | | | |
| | ft. | lb. | oz. | lb. | oz. | lb. | oz. |
| Advancer..... | 33 | 29 | — | 30 | — | 1 | — |
| American Wonder..... | 33 | 15 | 10 | 18 | 5 | 2 | 11 |
| Dainty Duchess..... | 33 | 13 | 11 | 14 | 12 | 1 | 1 |
| Early Giant..... | 33 | 29 | 10 | 31 | 8 | 1 | 14 |
| Gradus..... | 33 | 23 | 7 | 27 | — | 3 | 9 |
| Gregory's Surprise..... | 33 | 22 | 6 | 24 | 2 | 1 | 12 |
| Heroine..... | 33 | 35 | — | 37 | — | 2 | — |
| Juno..... | 33 | 24 | — | 25 | 8 | 1 | 8 |
| Premium Gem..... | 33 | 17 | 10 | 15 | 9 | -2 | 1 |
| Quite Content..... | 33 | 35 | 1 | 32 | 8 | -3 | 7 |
| Stratagem..... | 33 | 21 | — | 34 | — | 3 | — |
| Sutton's Excelsior..... | 33 | 23 | 10 | 26 | — | 2 | 6 |
| Thomas Laxton..... | 33 | 24 | — | 28 | 8 | 4 | 8 |
| Telephone..... | 33 | 26 | — | 34 | — | 8 | — |
| The Laxton..... | 33 | 23 | — | 26 | — | 3 | — |
| Average increase in yi lds of "Manure and Fertilizer" Plot..... | | | | | | 2 | 11 |

The fertilizer mixture applied to plot B in this experiment with peas includes phosphoric acid and potash only, the nitrogen having been omitted.

Here the cost of the manurial and fertilizer treatment of plot B amounts to \$20.81 per acre, or 6½ cents per row, as compared with \$30 per acre, or 9 cents per row, on plot A.

Only two out of a total of fifteen varieties have failed to produce an increased yield on plot B, the area which received both manure and fertilizers.

General Discussion of the Results from the Vegetable Experiments.

The results obtained in these fertilizer tests with vegetables permit of but one conclusion, the profitable use of fertilizers with manure. The evidence proves in an incontrovertible way the economical advantage of a medium application of manure with suitable commercial fertilizers as compared with the use of a large quantity of manure alone.

Possibly further investigations may suggest the desirability of altering the amounts and proportions of the fertilizer ingredients, the demand for which must necessarily vary according to the condition of soil, climate, the nature of previous cropping, etc., but the amount and proportions of the fertilizers used in these experiments approximately conform to general usage in market gardening.