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Yields of the Field Experiments 1952

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52/CE/2 Potatoes - Method of Planting - Rothamsted

Rothamsted Research

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52/Ce/2.1

POTATOES

Methods of planting and fertilizer application - West Barnfield II
1952.

System of replication: 4 randomized blocks of 18 plots each.

Area of each plot: 0.021 acre. Area harvested: 0.014 acre.

Treatments: All combinations of:-

Compound granular fertilizer (7% N, 7% P₂O₅, 10.5% K₂O): None;
7½; 15 cwt per acre.

Methods of planting and fertilizer application: Ridge,
broadcast fertilizer, hand plant and split back at once (A);
Ridge, and expose ridges for 7 days, broadcast fertilizer over
ridges, hand plant same time as A, split back ridges (B);
Broadcast fertilizer on flat, plant from flat with dropper (C);
Plant from flat with dropper, fertilizer placed 2" to side of
seed (D); Broadcast fertilizer on flat, plant in ridges with
dropper (E); Plant in ridges with dropper, fertilizer placed
2" to side of seed (F).

Basal dressing: None.

Cultivations, etc.: Ploughed: Sept 27 and again Mar 12. Ridged 'B'
plots: May 3. Fertilizers applied to 'C' and 'E' plots: May 5.
Ridged 'A' plots, fertilizers applied and potatoes planted on 'A'
and 'B' plots: May 9. Fertilizers applied and potatoes planted
on 'C', 'D', 'E' and 'F' plots: May 10. Earthed up: July 17.
Sprayed with copper fungicide 5 lb per acre: Aug 12 and again
Sept 5. Sprayed with sulphuric acid, 20% B.O.V.: Sept 4.
Lifted: Oct 10. Variety: Majestic. Previous crop: Wheat.

Standard error per plot:

Total tubers: 0.857 tons per acre or 9.1% (51 d.f.)*

*2 missing values.

Note: Treatment B was included to test whether the drying out of the
ridges would depress the yield. Since there was considerable
rain during the period of exposure this effect could not be tested.

52/Ce/2.2

Summary of Results

Compound Fertilizer cwt per acre	Hand planted Fertilizer Broadcast		Planted by dropper				Mean
	ridges planted at once	ridges exposed	Broad- cast on flat	Fertilizer Placed	Broad- cast on flat	Placed	

Total tubers: tons per acre

None	4.67	4.96	5.46 ⁽¹⁾		4.94 ⁽¹⁾		5.07 (±0.175)
7½ (±0.428)	9.97	10.53	7.90	11.54	8.24	10.71	9.81
15	14.03	14.15	11.54	14.36	11.06	14.71	13.31
Mean excluding none (±0.303)	12.00	12.34	9.72	12.95	9.65	12.71	9.40 [Ⓜ]

Percentage Ware (1½" riddle)

None	72.5	68.5	76.7		74.0		73.7
7½	82.8	80.3	82.4	86.5	86.4	84.8	83.9
15	82.3	85.5	82.6	84.6	84.6	87.5	84.5
Mean excluding none	82.6	82.9	82.5	85.6	85.5	86.2	80.7 [Ⓜ]

(1) ±0.303

[Ⓜ]General mean.