

POTATOES

TIME OF APPLYING PHOSPHATE AND POTASH 1971

(NAS 802 ML)

SUMMARY: There was no difference in yields or individual tuber size, from applications of P and K made a) after ploughing, b) early in spring, or c) to the seedbed.

OBJECT: To identify the optimum time for applying P and K to the soil for a crop of potatoes.

TREATMENTS:

120 units P + 180 units K applied to plots by hand as follows

1. After ploughing
2. Early in spring
3. To the seedbed

LAYOUT:

4 randomised blocks

VARIETY:

Once-grown Pentland Crown $1\frac{1}{4}$ - $2\frac{1}{4}$ ".

FIELD: Megg's Land

PREVIOUS CROPPING: 1970 }
 1969 } Spring Wheat
 1968 }

Potatoes - Time of applying phosphate and potash 1971

METHOD:

A mixture of 0.14.28 and triple superphosphate, to supply 120 units of phosphate and 180 of potash, was broadcast by hand to appropriate plots on the following dates:-

- 22 Dec - applied to newly-ploughed surface
- 25 Feb - applied to weathered ploughed surface
- 31 Mar - applied to seedbed, after cultivation with spring tine cultivator + harrows

The trial was planted with once-grown sprouted Pentland Crown on 2 April. 130 units per acre of nitrogen were applied broadcast during inter-row cultivations. The area was finally ridged up on 27 April. Blight sprays were given on 7 July and 11 August and the tops were burnt off with acid on 8 September. Lifting took place on 16 November.

RESULTS:

Mean yields (tons/ac)

	P & K applied:-			Mean	S.E. \pm
	22 Dec	25 Feb	31 Mar		
TOTAL YIELD	12.69	12.65	13.33	12.89	0.85
WARE YIELD ($>1\frac{1}{2}$ "	12.37	12.41	13.00	12.59	0.85
YIELD $<1\frac{1}{2}$ "	0.32	0.24	0.33	0.30	0.03
YIELD $1\frac{1}{2}$ - $2\frac{1}{4}$ "	4.99	4.57	5.27	4.95	0.54
YIELD $>2\frac{1}{4}$ "	7.38	7.84	7.73	7.65	0.42

1. Soil analysis of the trial site, based on ADAS indices, showed that available P and K were in categories 3 and 2 respectively. The recommended manuring would have been 100 units of P and 150 of K.

2. The application of PK fertiliser at different times had no significant effect on total yield, ware yield or individual tuber size.

R.A.P.