

WINTER BEANS

SEEDRATE, PHOSPHATE AND POTASH MANURING 1972
(N/S 900 191 ML)

SUMMARY There were no overall treatment differences the lowest seedrate and no fertiliser gave yield results as good as any other treatment applied. On an individual treatment a seedrate of approximately 2 cwt with 30 units P and 30 units K gave the highest yield of 22.2 cwt which was 0.7 cwt above that of any other treatment. The plant and tiller population reflected the amount of seed sown and tillers per plant was not affected by seedrate.

OBJECT To determine the effect of seedrate and phosphate and potash manuring on the growth and yield of winter beans.

LAYOUT 4 randomised blocks

TREATMENTS 1. Seedrate lb/ac 135, 207, 267 actually drilled
2. P.K. units/ac 0, 30 and 60 applied immediately after drilling.

FIELD Davis field - Morley

PREVIOUS CROP 1971 winter beans
1970 spring wheat
1969 sugar beet

VARIETY Throws MS

PRINCIPAL DATES 15 October drilled Massey Ferguson drill 10 coulters
x 7 in.
plot size 50 yd x 81 in.

15 September combined

Winter Beans - Seed rate and Phosphate and Potash

METHOD: appropriate rates of fertiliser were applied broadcast by hand to plot areas onto ploughed surface prior to working down and drilling on 15 October with Throw's M S winter beans. The trial was combined on 15 September.

RESULTS:

SEED RATE lb/acre	UNITS OF P AND K PER ACRE			MEAN
	0:0	30:30	60:60	
<u>Plant count '000 per acre</u>				± 95
135	97	85	87	90
207	117	113	112	114
267	133	133	167	144
MEAN ± 9.5 SE per plot (24 d.f.) ± 32.9 or 28.4%	115	110	122	
<u>Tiller count '000 per acre</u>				± 21.4
135	207	188	180	192
207	242	238	237	239
267	280	287	348	305
MEAN ± 21.4 SE per plot (24 d.f.) ± 74.1 or 30.%	243	238	255	
<u>Yield of beans cwt/acre at 85% DM</u>				± 0.40
135	20.8	20.1	21.5	20.8
207	20.2	22.2	19.0	20.5
267	20.6	19.1	20.4	20.0
MEAN ± 0.40 SE per plot (24 d.f.) ± 1.38 or 6.8%	20.5	20.5	20.3	

- *. Plant populations and tiller populations were low when compared to the previous year. Both sets of data reflected changes in seed rate. The production of tillers per plant was not significantly affected by the treatments applied.
2. Plant growth and pod set and development was poor during late May and June probably due to the persistent cool damp weather at that time. During June the development of chocolate spot was fairly rapid and not affected by treatment.
3. Crop yield was largely unaffected by treatments applied. The best plot yields were obtained where 207 lb seed had been sown and given 30 units of both potash and phosphate. This result was influenced by particularly heavy yields from this treatment on two replicates i.e. relative to other treatments.