

THE IMPROVEMENT OF SOIL CONDITION BY ROTATION, ORGANIC MANURING AND
LIME APPLICATION - 1977

NAS 200 ML

Summary

Pentland Crown maincrop potatoes were used as a test crop to assess the effects of various soil conditioning treatments on a sandy clay loam, viz:-

- a) Farm Yard Manure applied as a dressing of 50 t/ha twice in a six year rotation
- b) Factory Waste Line applied as a dressing of 125 t/ha once in a six year rotation
- c) Three year ley
- and d) One year ley

A range of nitrogen levels was applied to the potatoes in an attempt to identify and distinguish possible nitrogen effects from soil structure effects.

Factory Waste Line applied in the autumn of 1971 for the following sugar beet crop resulted in pale leaves and reduced vigour in the 1977 potato crop. The precise causes for these effects was not established but is likely to involve trace element deficiencies with the high pH and dry conditions prevailing. Yields of ware were significantly reduced and the nitrogen response was less marked than in the other treatments. The highest yields resulted from the FYM treatment. Neither internal bruising nor common scab appeared to be influenced by treatments.