8 - 12 **PHOSPHORUS AVAILABILITY STUDIES IN THREE MID-COUNTRY SOILS**

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Changes of available phosphorus with time in three mid-country soils treated with concentrated super phosphate were studied. The soils were Reddish Brown Latasol, Immature Brown Loam, and a Low Humic Grey Soil.

The availability of phosphorus in these soils was determined using the sodium bicarbonate extraction method described by Olsen. Soils were maintained at field capacity during the experimental period and sampled for analysis at five day intervals, during 25 days.

Initial available phosphorus content in soils, organic matter content, pH values, total calcium and iron contents in soils were also determined.

The availability of phosphorus in all soils gradually decreased with time. The first and second samples of all soils had high decreasing rates of available phosphorus and subsequent samples showed slow decreasing rates.

Fixation of phosphorus was evident in all soils from the beginning. The change in phosphorus availability with time, between soils, was not significant. However, within samples which were taken between 5 to 25 days in individual soils, the availability of phosphorus was significant at the 5% and 1% significant levels. This significance was due to differences between availability of the first sample and that of the other four samples. In this case the three soils behaved in the same manner.