

PHOSPHORUS CONTAINING ORGANIC COMPOUNDS IN SASKATCHEWAN SOILS

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A brief discussion is given to the total amount of organic phosphorus in the soil and methods for its estimation. Information presently available for Saskatchewan soils and objectives of the current research are considered. The research is specifically directed at estimation and characterization of the components of the soil organic phosphorus.

Table 1. Levels of Known Organic Phosphorus Constituents

<u>Compound</u>	<u>ppm P</u>	<u>Saskatchewan Values</u>			<u>World Soils</u>	
		<u>Range</u>	<u>Ave.</u>	<u>No.</u>	<u>ppm P</u>	<u>% Org. P</u>
		<u>% of Org. P</u>				
Inositol P	20-60	10-30	16	19	4-460	2-58
Nucleic Acid-P	-	-	-	-	6-20	5-10
Phospholipid-P	2-9	0.4-1.6	1.2	9	3-7	1
Unidentified	-	-	70-80	-	-	-

Table 2 Phospholipid P in Saskatchewan Soils. Values for 9 Soils

<u>Extraction Method</u>	<u>Range (ppm)</u>	<u>% Org. P</u>	
		<u>Range</u>	<u>Average</u>
Hance and Anderson	1.9 - 9.1	0.4-3.3	1.2
Hexane:Acetone	1.6 - 6.3	0.3-2.3	0.8