Bicarbonate Phosphorus Extraction
Inorganic & Organic

**Reagents**

0.5M NaHCO₃ (enough for 50 samples)

*In 2 l volumetric flask*

84 g Sodium Bicarbonate

Adjust pH to 8.5

Bring to volume with DI water

Keep refrigerated for a month

**Procedure - Total bicarb P**

**Soil solution extraction (1:20 dilution)**

*In a 50 ml Oakridge centrifuge tube*

2 g Oven-dried equivalent field fresh, sieved soil

40 ml 0.5M NaHCO₃

Shake for 18 hrs on an angle

Centrifuge @ 2500 rpm for 5 min

Decant into 15 ml centrifuge tube

Analyzing for P on ICP-OES for total bicarb P

**Procedure - Inorganic bicarb P**

*In a 15 ml centrifuge tube*

5 ml Solution (draw off before analyzing for total bicarb P)

Slowly add 2.5 M H₂SO₄ (expect effervescences) to neutralize the solution. Test with pH paper.

Vortex after ~2 min to de-gas the sample.

If necessary, centrifuge @ 2500 rpm for 5 min.

Analyze for inorganic P using the ascorbic acid method.

Organic bicarb P = Total bicarb P - Inorganic bicarb P