

PHOSPHORUS WORKSHEET- October 23, 2003
Birch Meadow Farms, Fairlee, VT

Formula from *The Phosphorus Index: A Tool for Management of Agricultural Phosphorus in Vermont*, Bill Jokela, University of Vermont.

Draft 5: 3/2001.

Soil Test P (STP): 11.4 Fertilizer P Application Manure P Application
Method (FP Method): .4 Method (MP Method): .4

Fertilizer P Rate
(FP Rate): 50 Manure P Rate
(MP Rate): 6

P Source Potential = STP + (FP Rate x FP Method) + (MP Rate x MP Method)

P Source Potential = 11.4 + (50 x .4) + (6 x .4) = 11.4 + 20 + 2.4 = 33.8

Soil Erosion (E) 1.5 * 3 = 4.5 Soil Runoff Class (R) 6
Tons/acre/year
(RUSLE)

Buffer Width (BW), ft. 0.8 Flooding Frequency (F) 3

P Transport Potential = ((E x BW) + R + F) / 25

**P Transport Potential = ((4.5 x 0.8) + 6 + 3) / 25 =
((3.6) + 6 + 3) / 25 = 12.6 / 25 = 0.504**

P Index = P Transport Potential x P Source Potential

P Index = 0.504 x 33.8 ≈ 17.0

Site Interpretation and Recommendation:

< 25 = LOW potential for P movement from site. If farming practices are maintained at the current level there is a low probability of an adverse impact to surface waters from P loss. N-based nutrient management is acceptable.

[Figures for E and R are estimated by researcher using information from the Orange County Soil survey, field slope and soil type characteristics, since actual RUSLE was not available from NRCS. Soil Runoff Class was a calculated estimate of **Medium** due to a slight slope in field.]