Reference Charts for Fertilizer Recommendations

Table 1: Soil Organic Matter – *reference for step 2*

% Organic Matter		Source: Olds College
Soil Zone	**Problem Range**	**Optimum Range**
Brown	< 2	3 – 4
Dark Brown	< 3	4 – 5
Black	< 4	5 – 10
Gray	< 2	3 – 5

Table 2: Typical CEC's – *reference for step 2*

Typical CEC's	Source: Olds College
Soil Texture	**Optimum Range**
Sands	2 – 5
Loams	5 – 15
Clay Loams	15 – 30
Clay	>30
Organic Soils	>100

Table 3: Nitrogen Uptake Coefficient (lbs N/bu.) – *reference for step 4*

Nitrogen Uptake Coefficient (lbs N/bu.)			
Hybrid Canola	2.75 – 3.0	Hard Red Spring Wheat	2.0 – 2.3
Rye (Fall/Spring)	1.5 – 1.85	CPS Wheat	1.8 – 2.0
Feed Barley	1.3 – 1.5	Durum Wheat	2.0 – 2.3
Malt Barley	1.0 – 1.2	Winter Wheat	1.5 – 2.2*
Oats	0.95 – 1.1	Flax	2.4 – 2.9
Grain Corn	1.2 – 1.5	Silage Corn lbs/ton	11 - 12

Table 4: Average Nutrient Uptake lbs/bu Yield – *reference for step 8*

Average Nutrient Uptake lbs/bu Yield			
	P_2O_5	K_2O	Sulphur
Spring Wheat	0.75 - 0.8	1.53 – 1.8	0.2 – 0.24
Winter Wheat	0.6 - 0.65	1.5	0.2 – 0.24
Barley	0.56 - 0.6	1.3 – 1.5	0.2
Oats	0.4 - 0.44	1.15 – 1.5	0.2
Rye	0.68 - 0.8	1.8 – 2.4	0.24 – 0.3
Corn	0.5 - 0.7	1.3	0.15 – 0.2
Canola	1.3 - 1.5	2.3 – 2.5	0.5 – 0.7
Flax	0.8 - 0.86	0.8 – 0.85	0.5 – 0.6
Peas	0.8 - 1.0	1.5 – 2.7	0.3
Lentils	0.8 - 0.82	2.5 – 2.6	0.3
Fababeans	1.95 -2.0	5.1	0.3
Soybeans	0.9 - 0.97	2.25 – 3.4	0.4