

**Appendix C Table 7 to Rule 901:10-2-14: Nutrient Sufficiency Ranges for Com, Soybeans, Alfalfa and Wheat.**

Element	Corn	Soybeans	Alfalfa	Wheat
	Ear leaf sampled at initial silking	Upper fully developed leaf sampled prior to initial flowering	Top 6 inches sampled prior to initial flowering	Upper leaves sampled prior to initial bloom
----- Percent (%)-----				
<b>Nitrogen</b>	2.90-3.50	4.25-5.50	3.76-5.50	2.59-4.00
<b>Phosphorus</b>	0.30-0.50	0.30-0.50	0.26-0.70	0.21-0.50
<b>Potassium</b>	1.91-2.50	2.01-2.50	2.01-3.50	1.51-3.00
<b>Calcium</b>	0.21-1.00	0.36-2.00	1.76-3.00	0.21-1.00
<b>Magnesium</b>	0.16-0.60	0.26-1.00	0.31-1.00	0.16-1.00
<b>Sulfur</b>	0.16-0.50	0.21-0.40	0.31-0.50	0.21-0.40
----- Parts Per Million (ppm)-----				
<b>Manganese</b>	20-150	21-100	31-100	16-200
<b>Iron</b>	21-250	51-350	31-250	11-300
<b>Boron</b>	4-25	21-55	31-80	6-40
<b>Copper</b>	6-20	10-30	11-30	6-50
<b>Zinc</b>	20-70	21-50	21-70	21-70
<b>Molybdenum</b>	-	1.0-5.0	1.0-5.0	-

Original Source: M.L. Vitosh (Michigan State University), J.W. Johnson (The Ohio State University), and D.B. Mengel (Purdue University) (1995). Tri-State Fertilizer Recommendations for Com, Soybeans, Wheat and Alfalfa. Bulletin E-2567. East Lansing Michigan; Michigan State University.