

Optimum Nutrient Ranges

| NUTRIENTS | JOHN I HAAS | Plant Analysis Handbook III | | Western Labs 5.5 ft above ground |
|---------------------------|-------------|--------------------------------|------------------------------------|-------------------------------------|
| | | Vegetative Stage- Pre-Bloom | Reproductive stage & Full Bloom | |
| Nitrogen (%) | | 3.2 - 5.6 | 2.13 - 3.93 | 4.0 |
| Potassium (%) | 1.49 - 2.5 | 1.6 - 3.4 | 0.97 - 2.55 | 3.0 |
| Phosphorous (%) | 0.29 - 0.6 | 0.27 - 0.54 | 0.18 - 0.43 | 0.4 |
| Calcium (%) | 0.79 - 1.2 | 1.03 - 2.57 | 3.09 - 6.05 | 2.5 |
| Magnesium (%) | 0.24 - 0.8 | 0.29 - 0.67 | 0.55 - 1.71 | 0.4 |
| Manganese (ppm) | 25 - 150 | 45 - 125 | 50 - 150 | 85 |
| Iron (ppm) | 30 - 60 | 44.3 - 97.9 | 35.4 - 151 | |
| Copper (ppm) | 10 - 25 | 8 - 29 | 5.7 - 16.6 | 10 |
| Boron (ppm) | 24 - 75 | 17.6 - 63.2 | 48 - 150 | 55 |
| Zinc (ppm) | 24 - 50 | 23.2 - 108 | 19.4 - 57.1 | 60 |
| % Sulfur Sampled Basis | 0.16 - 0.32 | 0.2 - 0.34 | 0.18 - 0.30 | 0.25 |
| % Sulfur Dry Matter Basis | 0.16 - 0.32 | 0.2 - 0.34 | 0.18 - 0.30 | |
| Mo | | 0.5 - 3 | 1 - 5 | |
| Na | 0 - 1400 | | | |
| NO3 ppm | 4000-12000 | | | |