



Target Values – Whole Leaf

Nutrient	Bloom	Veraison
Nitrogen (N, %)	2.5 - 3.5	2.25 - 3.25
Phosphorus (P, %)	0.15 - 0.45	0.12 - 0.30
Potassium (K, %)	0.75 - 1.50	0.50 - 1.00
Magnesium (Mg, %)	0.25 - 0.50	0.25 - 0.50
Calcium (Ca, %)	1 - 3	1 - 3
Boron (B, ppm)	30 - 100	30 - 100
Zinc (Zn, ppm)	25 - 100	15 - 50
Manganese (Mn, ppm)	30 - 100	30 - 100
Iron (Fe, ppm)	>75	>75
Copper (Cu, ppm)	6 - 20	6 - 20

Source: Pacific Northwest Extension Publication PNW622. Sampling Guide for the Nutrient Assessment of Irrigated Vineyards in the Inland Pacific Northwest. 2011 Washington State University.