

This is an updated version of the guideline for petiole results interpretation in the Perennia Grape Production Guide 2022 (Page 35, Section 4.2.3 Grapevine Nutrients, Figure 2) to reflect new Nova Scotia laboratory analysis results and target values applicable to Nova Scotia conditions. Be aware the differences of the acceptable ranges depending on **samples taken at bloom** or at **veraison**. Note the adequate ranges for nutrients at veraison. The values below are derived from soils and vine response in vineyards in the Northeast US and Ontario. Veraison sampling results are more reliable and consistent allowing for more accurate overall nutrient applications. Visual signs of specific nutrient deficiencies in season can often be adequately treated with foliar applications.

Grape Petiole Ranges

Element	Bloom	Veraison Deficient	Veraison Adequate	Veraison High/Excess
Nitrogen N	1.2 – 2.2 %	< 0.6 %	0.8 – 1.3 %	> 1.4 %
Calcium Ca	1 – 3 %	< 0.7 %	0.8 – 3.0 %	> 3.1 %
Potassium K	1.5 – 2.5 %	< 0.7 %	0.8 – 2.5 %	> 2.6 %
Magnesium Mg	0.3 – 0.5 %	< 0.4 %	0.35 – 1.5 %	> 1.6 %
Phosphorus P	0.17 – 0.30 %	< 0.14 %	0.15 – 0.4 %	> 0.5 %
Boron B	25 – 50 PPM	< 20 PPM	20 – 60 PPM	> 61 PPM > 100 PPM toxic
Copper Cu	5 – 15 PPM	< 1.9 PPM	2.0 – 16 PPM	> 17 PPM
Iron Fe	30 – 100 PPM	< 15 PPM	15 – 100 PPM	> 101 PPM
Manganese Mn	25 – 100 PPM	< 20 PPM	20 – 200 PPM	> 201 PPM
Zinc Zn	30 – 60 PPM	< 15 PPM	15 – 100 PPM	> 101 PPM