

## TigerClaw Dextro-Lac Foliars

Agro-K's widely used and trusted Dextro-Lac (DL) products have earned their reputation for over 20 years as the grower standard when plant safety and performance are top priorities.

Dextro-Lac products are made using a proprietary encapsulation method developed by Agro-K scientists that utilizes two biologically important carbohydrate molecules – dextrose and lactose – as a complexing agent to form a protective shield around nutrients to keep them in a readily available and plant friendly form. Both dextrose and lactose are easily transported across cell membranes, making them ideal carriers for the encased plant nutrients with a zero risk of phytotoxicity to tender fruit and foliage.

TigerClaw Products available from	
Cal-Bor-Moly DL	Calcium 5% DL
Copper 5% DL	Power K 20%
KDL 0-0-24	Power Mg 5%
Iron 5% DL	Power SeaCal
Symspray 20x	Symbex
Magnesium 3% DL	Zinc 10% DL
Manganese 5.5% DL	

Tiger Claw products listed above as "DL" are Dextro-Lac based products.

# TerraLink

**TERRALINK HORTICULTURE INC.**

464 Riverside Rd. S. • Abbotsford, BC V2S 7M1 • Canada  
604-864-9044 • [www.tlhort.com](http://www.tlhort.com)



**AGRO-K CORPORATION**  
8030 Main Street, NE • Minneapolis, MN 55432  
800-328-2418 • [www.agro-k.com](http://www.agro-k.com)



*Science-Driven Nutrition<sup>SM</sup>*

## Wine Grape Program





## Wine Grape Nutritional Program

Wine grapes tell us a lot about nutrient requirements and peak nutrient demands. When we know what the key uses of a nutrient are we can anticipate the timing of those uses and support them. Nutrient applications can be made to maximize the effectiveness of a nutrient and support plant processes. Minerals vary in their ability to be taken up both in quantity and speed. The form of nutrient used and the application method (soil, foliar) will also make significant differences in performance.

Wine quality is directly linked to grape and juice quality. Maximizing colour, phenolic compounds and sugar content will determine the juice quality and ultimately the wine. These factors, as well as vine health and disease tolerance, can be positively influenced by good nutrition. To achieve maximum quality, growers need to address peak nutrient demands for all elements such as zinc, magnesium, phosphorus, calcium, boron and potassium in a timely manner. The best and most efficient approach is to begin foliar application(s) of each nutrient just ahead and during peak demand timing for that nutrient. Post harvest applications of key nutrients will also help store nutrients in next year's buds, roots and wood.

Vines have a strong vegetative stage early season, prior to bloom. Shoot, vine and leaf development dominates during this stage meaning zinc and magnesium are in high demand early. These nutrients can be difficult for roots to pull in early spring, depending on soil conditions. Vines will rely on stored nutrients, but because zinc is needed for full leaf development and magnesium for chlorophyll production these nutrients must be sufficiently available or shoot and leaf development will suffer. Early foliar applications ensure these needs are met.

From bloom through to the formation of small berries, calcium is key to ensuring strong berry cell walls and maximizing disease tolerance. Calcium determines cell wall density, integrity and thickness which are important to producing quality grapes that will resist splitting during veraison. Calcium is one of the least mobile elements within plants and must be incorporated into cell walls during cell division to impact the cell's integrity and quality. Therefore bloom and post bloom foliar applications are critical for increasing calcium levels. Because vines continue to grow throughout the season, there is a continuous need for calcium to support the vegetative growth. Applications of TigerClaw Calcium 5% are ideal in maintaining good calcium levels with the vines and maximizing disease tolerance through strong cell walls.



Veraison is the start of the maturation process. Demand for potassium increases dramatically from this point through harvest. While soil potassium levels may test adequate, soil moisture levels are generally low during maturation limiting the vine's ability to pull potassium quickly enough to satisfy demand. Foliar applications of TigerClaw KDL during the ripening process can increase colour, brix levels and phenolic compound levels.

TigerClaw Foliar Nutrient Program for Wine Grapes	
<b>bud break to 10-20 cm shoot growth</b>	
TigerClaw Zinc 10% DL	1-2L/acre
Boron 10% or similar	0.4L/acre
<b>1-3 cm flower cluster</b>	
10-52-10	
TigerClaw Calcium 5% DL	2L/acre
TigerClaw Symspray 20x	1L/acre
TigerClaw Magnesium 3% DL	1-2L/acre
<b>21-30 days pre-bloom</b>	
TigerClaw Power Calcium	1.5L/acre
TigerClaw Symspray 20x	1L/acre
TigerClaw Cal-Bor-Moly DL	0.5L/acre
<b>7-10 days pre-bloom</b>	
Boron 10% or similar	0.4L/acre
TigerClaw Power Calcium	1.5L/acre
TigerClaw Symspray 20x	1L/acre
TigerClaw Cal-Bor-Moly DL	0.5L/acre
<b>20-25% bloom</b>	
TigerClaw 5% Calcium DL	2L/acre
TigerClaw Symspray 20x	0.25L/acre
<b>with each mildew spray</b>	
TigerClaw 5% Calcium DL	2L/acre
TigerClaw Symspray 20x	0.25L/acre
<b>Brix level 16-17</b>	
TigerClaw KDL	3L/acre
<b>Brix level 19-20</b>	
TigerClaw KDL	3L/acre
<b>Post harvest (while leaves are still in good condition)</b>	
Boron 10% or similar	0.4L/acre
3-18-18 or similar	4L/acre
TigerClaw Zinc 10% DL	1-2L/acre
TigerClaw Magnesium 3% DL	1-2L/acre