SL TEC FERTILIZERS

Nutrient Solutions

Post Harvest Wine Grape Nutritional Guide

Approximately 30% of the annual Nitrogen and Phosphorus, 20% of the Calcium and Magnesium and 15% of the Potassium requirements come from stored reserves taken up after harvest.

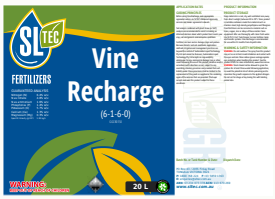
Key Product for Post Harvest Application

Product Code	Name	N% (w/v)	P% (w/v)	K% (w/v)	S% (w/v)	Ca% (w/v)	Biological Stimulation	Chelating Agent	Specific Gravity (kg/L)	pH Range	Typical Application Rates	
											Fertigation	Foliar Use 200 to 2,000 L/ha Water
SG0017	**BiologiCAL® PLUS** N as NO_3 0.3%, P as PO_4 0.1%, Fulvic Acid 0.01%, Fish Emulsion 0.3%, Humic Acid 0.2%, Kelp 0.3%, Molasses 41.8%	0.3	0.1	2.0	1.8	6.3	Y	Y	1.27 - 1.30	8.0 to 10.0	20 to 60 L/ha through sprinkler, traveller or drip systems.	4 to 20 L/ha
SG0007	**QuadSHOT®** P as PO_4 2.5%, Mn 0.001%, B 0.002%, Fe 0.006%, Fulvic Acid 0.3%, Fish Emulsion 8.0%, Humic Acid 6.6%, Kelp 8.0%, Molasses 8.0%	0.4	2.6	3.1	0.2	0.2	Y	Y	1.10 - 1.20	2.5 to 3.5	10 to 140 L/ha	1 to 5 L/ha
GG0068	**High K P** P as PO_4 12.0%	-	12.0	36.0	-	-	-	-	1.55 - 1.57	12.0 to 13.0	10 to 80 L/ha	
GG0009	**Baseline Plus** N as NO_3 0.02%, N as Urea 11.7%, P as PO_4 4.8%, Mg 0.2%, Mn 0.01%, Zn 0.01%, Cu 0.005%, B 0.02%, Fe 0.01%, Fulvic Acid 0.01%, Fish Emulsion 0.4%, Humic Acid 0.3%, Kelp 0.4%, Molasses 0.4%	11.8	4.8	13.6	2.0	-	Y	Y	1.29 - 1.32	7.5 to 8.5		2 to 15 L/ha
GG0064	**Nitro QUAD 3** N as NO_3 10.3%, N as NH_4 10.3%, N as Urea 20.6%, P as PO_4 0.1%, Fe 0.001%, Fulvic Acid 0.01%, Fish Emulsion 0.2%, Humic Acid 0.2%, Kelp 0.2%, Molasses 0.2%	41.2	0.1	0.1	-	-	Y	Y	1.30 - 1.32	6.0 to 7.0		10 to 60 L/ha
SS9001	**SS 11:16:0** N as NH_4 11.3%, P as PO_4 16%	11.3	16.0	-	-	-	-	-	1.29 - 1.30	6.0 to 7.0	20 to 100 L/ha	1 to 5 L/ha
GGCB0150	**Vine Recharge** N as NO_3 4.8%, N as NH_4 1.6%, P as PO_4 1.4%, Mg 0.3%	6.4	1.4	5.7	-	1.3	-	-	1.19 - 1.21	< 1.0	10 to 200 L/ha	1 to 5 L/ha

Table 1: Crop Removal & Demand

	Nutrient Removal kg / ton of Fruit	Tonnes of fruit removed per ha	Total Nutrients Removed kg/ha	Post Harvest to Leaf Fall	
				% Crop Demand	kg/ha
N	1.5	10	15	34%	5.1
P	0.4	10	4	28%	1.1
K	3.0	10	30	15%	4.5
Ca	0.4	10	4	22%	0.9
Mg	0.1	10	1	22%	0.2

Wine Grape Crop demand adapted from Conradie (1980) and Conradie (1981). Nutrient removal figures in kg/ t are world wide averages from SLTEC database.



Vine Recharge – is a product specifically formulated by SLTEC's Research and Development team for grape vine post-harvest fertigations applications. Vine Recharge is a blend of all 5 nutrients in the ratios the vine requires; providing the convenience of all your major nutrient requirements in one blend.

The following table displays the required application rate of Vine Recharge in relation to the amount of t/ha of crop removed to ensure optimal nutrient levels at Post-Harvest.

t/ha	1	5	10	15	20
L/ha	*8*	*40*	*80*	*120*	*160*

Simply apply Vine Recharge at 8 L/ha for every 1 t/ha of crop that you have removed to supply the required nutrients.

Grape Vine Nutrient Management - Post Harvest

Nutrient and carbohydrate reserves for grape vines are essential for vine health and performance for the following year.

Post-harvest nutrient application increases the stored nutrient status of vines, reducing potential deficiencies from bud break up to the end of flowering.

Irrigation

It is imperative that vines receive adequate water post-harvest to maximize their carbohydrate storage and nutrient uptake for the following season.

It is critical that remaining irrigations are carefully managed to maintain a functional canopy for three to four weeks after harvest.

It is important that both topsoil and subsoil moisture is maintained over the winter period as dormant plants still use water.

Remember to ensure soils don't become too dry as roots and soil biology will be negatively affected, leading to reduced nutrient uptake in spring. To improve soil biology and subsequent nutrient cycling over the dormant period please consider **QuadSHOT®** - providing a valuable blend of microbial food sources and root zone stimulants.

Nitrogen (N)

Nitrogen applications post-harvest play a large role in the available Nitrogen for the coming season; safeguarding a strong and even bud burst and aiding in the early spring flush of growth.

Phosphorus (P)

Phosphorus is critical for root development and has a direct effect on yield and quality. The application of Phosphorus increases the beneficial translocation of other nutrients, such as Magnesium from the roots to the shoots.

Potassium (K)

Potassium is involved in the active translocation of sugars from the leaf to the fruit and therefore plays an important role in fruit quality, size and yield. Potassium is also involved in the osmotic potential of cells as well as the turgor of the guard cells that open and close stomata. Good Potassium levels in early spring can help to safe-guard buds and new growth from frost damage.

Calcium (Ca)

Calcium is a key component of cell walls, maintaining membrane structure and nutrient uptake. It has a significant role in fruit quality, colour and aroma.

Using **BiologiCAL PLUS®**, a plant-available Calcium source containing microbial stimulants already in solution, will increase Calcium levels in the soil under the dripper where the majority of the root structure lies.

Magnesium (Mg)

Magnesium is an essential component of chlorophyll and is needed for many processes including the transfer of energy, protein synthesis and cell structure.

After harvest, vines accumulate a significant amount of Magnesium, which is then stored in the roots, shoots and woody components of the trunk. Magnesium accumulation continues until leaf fall with most being stored in the roots and leaves.

Contact us for more information

1800 768 224 | www.sltec.com.au | enquiries@sltec.com.au

SLTEC FERTILIZERS