SLTEC® Olive Program

Crop nutrient budgeting is critical to improving production efficiencies and reducing any environmental impacts from the overuse of fertilisers. As part of SLTEC®'s olive program, we aim to help growers better understand their crop's nutrient requirements, and at which stages of growth, the peak demand for nutrients occurs.

This program is based on crop demand during an "on season". When the crop is on the low yielding biannual yield cycle, nutritional requirements can be halved in some cases.

The program shown below is an example based on a 10 t/ha fruit yield in Northern Victoria. In other regions, other nutrients such as potassium may be required to achieve expected yields due to differing soil conditions.

The final fertiliser program and nutrient budgeting used on an individual crop in any region should be made in consultation with your agronomist after considering yield expectations and nutrient removal from previous crops. SLTEC® strongly recommends soil testing prior to planting along with plant tissue testing during the growing season.

Olive Nutrient Removal Charts (Total Fruit)

			kg per l	hectare		g per hectare							
	N	Р	K	S	Mg	Ca	Cu	Mn	Zn	В	Fe	Mo*	
Fruit	28.7	6.1	73.0	2.7	3.3	4.4	43.5	36.0	52.5	83.6	97.2	10.0	

Table adapted from: http://www.csuchico.edu/~rrosecrance/Model/OliveCalculator/OliveCalculator.html Removal is based on 9.88 t/ha of total fruit.

* Indicative only

						od 1	Period 2		Period 3		Period 4		Period 5		Per	iod 6
		Bud Break Calyx Opening (September) (Late October)			Flowering Hardening of Sto		g of Stone	of Stone Colour Change			larvest - June)					
Product Code	Product Name	Product Description	Application Method	Total L/ha Applied for Season		Suggested application timings, methods and rates (L/ha) Please consult your agronomist for specific information regarding your situation										
GG0009	Baseline Plus™	12-5-14 plus an additional 8 nutrients and 5 biostimulants	Foliar	8		2		2			2				2	
SNPK0022	Olive Foliar Blend™	A blend created specifically for olive application with nutrients in the correct ratios	Foliar	40		20							20			
GG0194	Cal Mag, Boron & Zinc™	Blend of calcium, magnesium, boron and zinc in ratios perfect for periods of rapid plant growth	Fertigation	200		50		50				50		50		
GG0097	Nitro QUAD 20™	UAN with 20% QuadSHOT® to improve availability and stimulate rootzone biology	Fertigation	100											100	
GG0042	Pot Phosphate™	A high analysis source of phosphorus and potassium	Fertigation	100								50	50			
GG0182	Nature's K [™]	Potassium with the added benefit of nitrogen, phosphorus, sulphur and carbon	Fertigation	40 - 300 L/ha as required over the growing season												

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SLTEC® Olive Fertiliser Options

Produc	t Technical Information									Period 1 - 2 (Bud Break - Calyx Opening)
Todac										Feeding the crop early is essential for bud develop
							Specific		Typical Application Rates	to ensure flowering in the following periods. Supply
Product	Nama	N%	P%	K%	S%	Ca%		nH Dance	Enline	and a succession and a succession of the success

							Specific		Typical Application Rates			
Product Code	Name	N% (w/v)	P% (w/v)	K% (w/v)	S% (w/v)	Ca% (w/v)	Gravity (kg/L)	pH Range	Fertigation	Foliar Use at least 500 L/ha water		
GG0009	Baseline Plus™ N as urea 11.7%, P as PO₄ 4.9%, Mg 0.2%, Mn 0.006%, Zn 0.01%, Cu 0.005%, Mo 0.005%, B 0.02%, Fe 0.01%, C 0.3%, Fulvic Acid 0.01%, Fish Emulsion 0.4%, Humic Acid 0.3%, Kelp 0.4%, Molasses 0.4%	11.7	4.9	13.6	2.0	-	1.304	7.5 - 8.5	10 - 100 L/ha	2 - 15 L/ha		
SNPK0022	Olive Foliar Blend™ N as NH ₄ 1.0%, P as PO ₄ 4.0%, Mg 0.3%, Zn 0.3%, B 0.1%, Fe 0.2%	1.0	7.3	9.7	0.3	-	1.234	6.5 - 7.5	10 - 100 L/ha	5 - 20 L/ha		
GG0194	Cal Mag, Boron & Zinc™ N as NO ₃ 12.4%, Mg 3.4%, Zn 0.2%, B 0.2%	12.4	-	-	-	12.2	1.489	3.0 - 6.0	10 - 80 L/ha	1% of total volume		
GG0097	Nitro QUAD 20 [™] N as NH $_4$ 8.5%, N as NO $_3$ 8.5%, N as urea 17.1%, P as PO $_4$ 0.5%, Fe 0.006%, C 1.0%, Fulvic Acid 0.05%, Fish Emulsion 1.6%, Humic Acid 1.3%, Kelp 1.6%, Molasses 1.6%	34.2	0.5	0.6	÷	-	1.297	4.0 - 6.0	10 - 80 L/ha	10 - 40 L/ha		
GG0042	Pot Phosphate™ (0-14-30-0) P as PO ₄ 13.6%	-	13.6	30.0	-	-	1.480	7.5 - 8.0	10 - 80 L/ha	1 - 10 L/ha		
GG0182	Nature's K [™] P as PO ₄ 1.5%, C 0.6%, Amino Acids 2.8%, Fulvic Acid 2.1%	0.6	1.8	10.0	2.6	-	1.160	8.5 - 10.0	40 - 300 L/ha	5 - 20 L/ha		



Feeding the crop early is essential for bud development to ensure flowering in the following periods. Supplying adequate nutrition during Period 1 and 2 will ensure optimal yield. Period 2 foliar applications will be suitable as the tree will have a new flush of growth, suited for foliar applications.

Period 3 (Flowering)

If adequate nutrition has been applied during the first two periods, the crop should need no additional fertiliser over the flowering period.

Tissue sampling may begin at new shoot growth and continue as needed through to late fruit fill.

Period 4 (Hardening of Stone)

During this period, while hardening the stone, the crop is setting the potential yield for the next season. It is vital to feed the crop adequately to ensure the current crop's requirements do not limit the following season's yield.

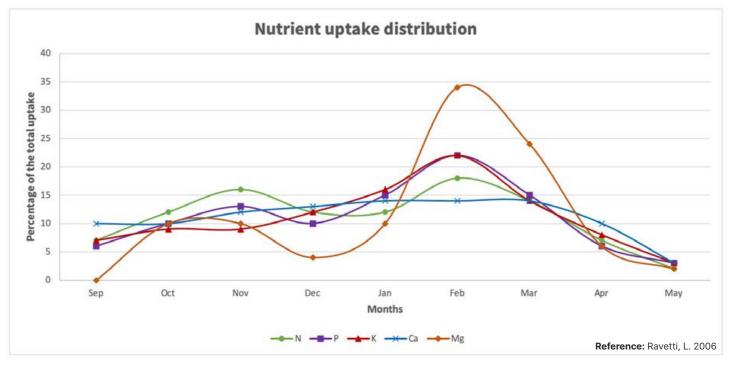
Period 5 (Colour Change)

Growth Stage Considerations

During this period, final yield is achieved. Adequate nitrogen, phosphorus, potassium and calcium are essential. Recommended products are **Baseline Plus™** and **Cal Mag, Boron & Zinc™**. If mechanical harvesting is planned, 720 g/l ethephon active may be applied with **Olive Foliar Blend™**.

Period 6 (Post Harvest)

Dependent on the time of harvest, fertigation may be possible. It is advised to feed the crop to aid in recovery from harvest. At minimum, a foliar application of trace elements is advised. Consider **Baseline Plus™**.



	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Flowering			_									
Fruit Growth												
Pit Hardening												
Fruit Ripening												
Oil Accumulation												

Reference: Torres, M., et. al (2017). Olive Cultivation in the Southern Hemisphere: Flowering, Water Requirements and Oil Quality Responses to New Crop Environments. Frontiers in Plant Science, 8. https://doi.org/10.3389/fpls.2017.01830