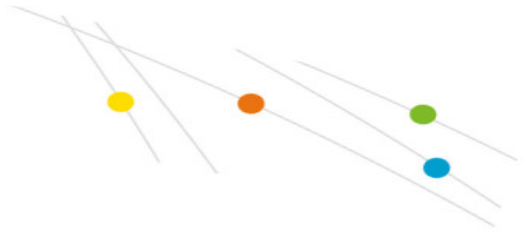


Tomato phenological phases and their nutrition requirements

The following plan is suggested to achieve the mentioned requirements, for a determinate cultivar of field tomatoes with a life span of 140 days, and an expected yield of 100 MT/ha, by fertigation via drip irrigation. Potassium nitrate should be used as the primary source of potassium, and a partial source of nitrogen. The balance of nitrogen should be sourced from calcium nitrate, magnesium nitrate and ammonium nitrate, as per the following phase-specific rates.

Growth stage (DAT)	Potassium nitrate	Balance of N	P ₂ O ₅	CaO	MgO	S
	kg/ha					
0-28	130	30	34	30	25	19
29-63	402	58	33	60	40	30
64-110	391	43	33	53	35	26
111-140	163	4	0	8	0	0
Total	1086	135	100	151	100	75

Growth stage (DAT)	N:P ₂ O ₅ :K ₂ O:CaO:MgO:S				Reasoning
0-28	N	1	P ₂ O ₅	0,72	Relatively high N, P, K for establishing root system and building shoot biomass.
	K ₂ O	1,28	CaO	0,64	
	MgO	0,53	S	0,4	
29-63	N	1	P ₂ O ₅	0,3	Lower P because root system is already established; some reduction in K; continuous demand for Ca and Mg for vegetative organs.
	K ₂ O	1,7	CaO	0,55	
	MgO	0,36	S	0,27	
64-110	N	1	P ₂ O ₅	0,35	Stable P requirement, now for seed production; very high K requirement for bulking up of the developing fruits; stable demand for Ca, Mg and S, for vegetative organs.
	K ₂ O	1,91	CaO	0,56	
	MgO	0,37	S	0,28	
111-140	N	1	P ₂ O ₅	0	Markedly reduced requirement for all nutrients, except K, which is required for bulking up of the developing fruits.
	K ₂ O	3	CaO	0,32	
	MgO	0	S	0	



-TOMATO

