



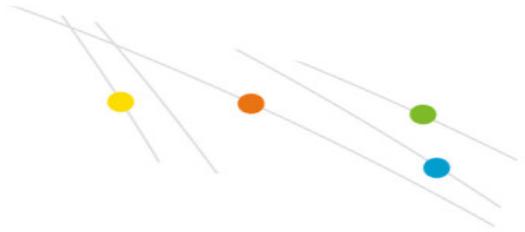
Onion phenological phases and their nutrition requirements

The following plan is suggested for realizing the said requirements, for field onions with a life span of 120 days, and an expected yield of 45 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, and ammonium nitrate, as per the following phase-specific rates. Trace nutrients should be applied as per soil-, and leaf analysis.

This plan presents the mineral nutrition scheme, in terms of the mass proportions between all macro-, and secondary- nutrients.

Growth stage (DAT)	N:P ₂ O ₅ :K ₂ O:CaO:MgO:S					Reasoning
0 - 20	N	1	P ₂ O ₅	2		Relatively high N, P, K for establishing root system and building shoot biomass
	K ₂ O	1	CaO	0		
	MgO	0,07	S	0		
21 - 45	N	1	P ₂ O ₅	0,4		Lower P because root system is already established; some reduction in K; continuous demand for Ca and Mg for vegetative organs
	K ₂ O	0,4	CaO	0,34		
	MgO	0,1	S	0		
46 - 80	N	1	P ₂ O ₅	0,36		Stable requirement for P and Mg; High K requirement for bulb growth; increasing demand for Ca and S, for developing bulb
	K ₂ O	1,22	CaO	1,34		
	MgO	0,07	S	0,1		
81 - 100	N	1	P ₂ O ₅	1,71		Markedly high requirement for K, which is required for bulking up of the bulbs, and for P as a preparation for future seeds production
	K ₂ O	5,7	CaO	0		
	MgO	0,03	S	3,43		



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