

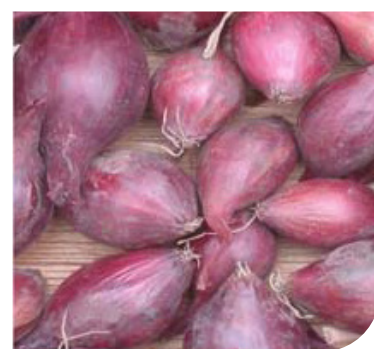


ONION FERTIGATION

GENERAL

Onion is directly sown, more rarely transplanted. The root system is shallow and fibrous. The cycle length is rather long and depends on cultivar and environment. The “long day” varieties require 12 to 15 hours long days and high temperature. The plant density ranges from 20 to 40 plants/m². The marketable yield target for the “long day” varieties is about 40 T/ha, with 85 % moisture. The optimum pH is around 6.0 (5,8-6,5), put onion performs well up to pH 7, 5. Onion preferably grows in soils ranging from light sandy to organic. The crop is well adapted to cool weather.

50% of nutrient uptake occurs during the last month before harvesting. A high nutrient availability is also important during the bulb formation stage. S containing fertilizer enhances flavour, but ammonium fertilizer diminishes it. Onion is very sensitive to copper and manganese deficiencies, as to magnesium and molybdenum ones as well. The copper is good for keeping quality, during storage. Some authors noted a better yield with slow-release fertilizer.



NUTRIENT UPTAKE/REMOVAL (in normal growth conditions)

Yield	Dry matter	N	P ₂ O ₅	K ₂ O	MgO	CaO
42T/ha	8,25 T	155	75	116	15,8	91

(Source: IFA)

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FERTIGATION ADVICE

Expected yield:

80 T/ha – fertilisation advice: N: 297 kg/ha – P₂O₅: 232 kg/ha – K₂O: 363 kg/ha

Irrigation	Phenologic stage	10 days after sawing or from transplanting to 4-leaves stage			Vegetative growth (from 4-leaves to 8 leaves stage)			Beginning bulbification (from 8 leaves to 15 leaves)			Bulb development		
	Number of days	15			30			49			49		
	Fertilising elements	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O	N	P ₂ O ₅	K ₂ O
	Requirements in fertilising elements	15	45	10	112	56	56	120	96	120	48	12	172
	NPK ratio	1	3	0.7	2	1	1	1	0.8	1	4	1	14.3
	Formulation	15*45*10 + TE			28*14*14+TE			20*16*20+TE			12*03*43 + TE		
	Number of kg/ha	150			400			600			400		
	Number of kg/ha/day	10			13.3			12.2			8.2		

Foliar treatment	Phenologic stage	Fomulation	Dosages
	Vegetative growth (from 4-leaves to 8 leaves stage)	SUPREMO L 100 Mn +Cu+S	2 x 2,5 l/ha
Beginning bulb formation (from 8 leaves to 15 leaves)	SUPREMO L 135 Mg +N	3 x 5 l/ha	

Yield deviation: per any 10 tons of deviation, add or reduce 20 kg/ha of 15*45*10 + T.E, at stage 1, 40 kg/ha of 28*14*14 + T.E, 20*16*20 + 2 MgO + T.E, 12*03*43 + T.E, respectively at stage 2, 3 and 4.

Notice: Formulae and recommended doses correspond to the plant average needs, cropped on well-balanced soils. They must be adapted to the soil, the climate, the cropping conditions, the variety, the water management and the yield target. Fertigation schedule indicate daily fertilizer requirements per ha. In case of irrigation in time intervals other than daily, the amount of fertilizer to be given has to be increased proportionally. The base dressing (organic and/or mineral) should be deducted from advised recommendations.

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