



# Ultrasol<sup>®</sup> by stage

## Ultrasol<sup>®</sup> by stage

Initial • Development • Growth • Production • Multipurpose

Ultrasol<sup>®</sup> Stage is a complete range of water-soluble fertilizers containing essential macro- and micronutrients to meet the nutritional requirements of each phenological stage of the crop.

Ultrasol<sup>®</sup> Stage formulas consist of free-flowing fine crystalline powders that quickly dissolve in water, making them specifically suitable for use in fertigation systems for soil-grown crops, like drip, sprinkler and pivot.

Ultrasol<sup>®</sup> Stage formulas are pure and virtually free of chloride, sodium and heavy metals.

Ultrasol<sup>®</sup> Stage formulas supply balanced levels of macro- and micronutrients per stage, without supplying excess of sulphate or chloride.

Ultrasol<sup>®</sup> Stage formulas are designed with specific focus on a well-balanced supply of nitrate nitrogen and ammonium nitrogen and are urea free for optimum control of the nitrogen supply.

Ultrasol<sup>®</sup> Stage formulas contain a full package of six micronutrients: boron (B), copper (Cu), iron (Fe), manganese (Mn), molybdenum (Mo) and zinc (Zn). Copper, iron, manganese and zinc are fully chelated, optimizing their solubility in the soil solution and absorption by the plant.



**Ultrasol<sup>®</sup>**  
by stage



**Initial**

**15-30-15 + TE**

Ultrasol<sup>®</sup> Initial is a formula which has been developed to stimulate growth and early development of roots, stems and leaves, thanks to its well-balanced nutrients composition and high content of phosphate. Ultrasol<sup>®</sup> Initial is to be applied especially during the first weeks of the vegetative cycle.

**Development**

**18-9-18 + 4MgO + TE**

Ultrasol<sup>®</sup> Development is a formula which has been developed for the cell division phase, when plant organs are being defined and developing, thanks to its 2:1:2 NPK ratio. This formula is enriched with magnesium to increase the efficiency of photosynthesis during and after the development stages.

**Growth**

**22-9-9 + TE**

Ultrasol<sup>®</sup> Growth is a formula that has been developed for phenological stages with high nitrogen demand during early growth and development with increased leaf expansion. This formula is free of urea allowing better control over the vegetative growth of the crop.

**Production**

**13-6-40 + TE**

Ultrasol<sup>®</sup> Production is especially designed for the most intensive process in plant's life: from flowering to fruit formation, where the potassium is responsible for the transport of the carbohydrates from the leaves to the reproductive organs (fruit, seed, bulb, tuber) to obtain more weight and higher quality.

**Multipurpose**

**18-18-18 + TE**

Ultrasol<sup>®</sup> Multipurpose is a formula to be applied in all growth stages to overcome nutritional deficiencies and stress conditions. The formula is free of urea and contains a higher amount of nitric nitrogen than ammonium nitrogen, providing the optimum nitrogen sources for quick plant response.

**Chemical specifications**

Ultrasol <sup>®</sup>	Initial	Development	Growth	Production	Multipurpose
Formula	15-30-15 + TE	18-9-18+4MgO + TE	22-9-9 + TE	13-6-40 + TE	18-18-18 + TE
Total nitrogen (N)	15,0	18,1	22,0	13,0	18,0
Nitric nitrogen (N-NO <sub>3</sub> )	6,0	10,8	8,0	12,0	10,0
Ammonium nitrogen (N-NH <sub>4</sub> )	9,0	7,3	14,0	1,0	8,0
Phosphorus pentoxide (P <sub>2</sub> O <sub>5</sub> )	30,0	9,1	9,0	6,0	18,0
Potassium oxide (K <sub>2</sub> O)	15,0	18,0	9,0	40,0	18,0
Magnesium oxide (MgO)	0,5	4,0	-	0,5	1,0
Sulphur trioxide (SO <sub>3</sub> )	5,0	8,2	21,0	3,0	2,0
Boron (B)	0,020	0,020	0,020	0,020	0,020
Copper (Cu)	0,004	0,004	0,004	0,004	0,004
Iron (Fe) 35% EDDHA 65% EDTA	0,040	0,040	0,040	0,040	0,040
Manganese (Mn) EDTA	0,025	0,025	0,025	0,025	0,025
Molybdenum (Mo)	0,002	0,002	0,002	0,002	0,002
Zinc (Zn) EDTA	0,015	0,015	0,015	0,015	0,015
<b>Physicochemical properties</b>					
Solubility (g/l at 20°C)*	450	460	500	350	500
pH (in 1% solution)*	3,6	4,7	4,8	4,1	4,5
EC (1 g/l at 25°C, in mS/cm)*	1,2	1,4	1,6	1,2	1,3

\*with demiwater

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