

# CROPMAX<sup>®</sup>

natural plant nutrient supplement



# Cropmax

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Ultraconcentrated foliar fertilizer, which contains growth promoters, plant vitamins, polysaccharides, enzymes, and macro and micro elements.

Due to its high concentration, the rate of fertilizer use is 0.5-1 litre per 1 hectare.

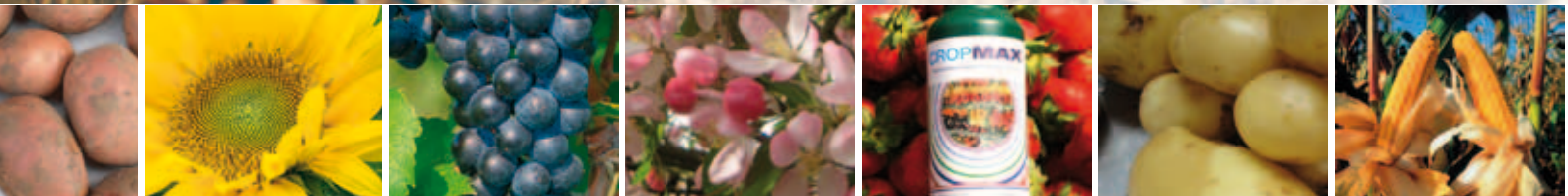
The organic nature Cropmax makes it suitable for use on all crops.

Due to the unique composition, Cropmax is a powerful plant development activator. Application Cropmax provides fast root growth and active development of vegetative mass in general, allowing the crops to fully realize their potential, thereby the rate of basic NPK fertilizer application can be reduced by 25-50%.

## What is the growth promoter?

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Plants consume macro-elements (nitrogen, phosphorus, potassium), meso-elements (calcium, magnesium, sulfur) and trace elements. At the same time, they produce their own growth regulators (cytokinins, gibberellins, auxins, ethylene, etc.). In stressful situations, the production of growth regulators in the plants is greatly reduced. Such factors as heat, drought, frost, and phytotoxicity cause loss of biological potential, which significantly reduces the crop yield. Cropmax contains in ultraconcentrated form the entire spectrum of required growth regulators and is a powerful stimulator of plant metabolism.

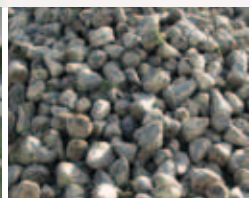




# Agricultural properties of Cropmax

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- Certified ecological fertilizer, permitted for use in organic agriculture.
- Significantly increases productivity.
- Increases product quality.
- Improves efficiency of mineral fertilizers and pesticides.
- Promotes rapid and greater development of root system, thereby significantly increasing resistance of plants to drought and stress.
- Increases digit branching and tillering of plants.
- Significantly improves plant resistance to pests and diseases.
- Compatible with pesticides and fertilizer solutions.



The unique composition of Cropmax makes it indispensable throughout the growing season

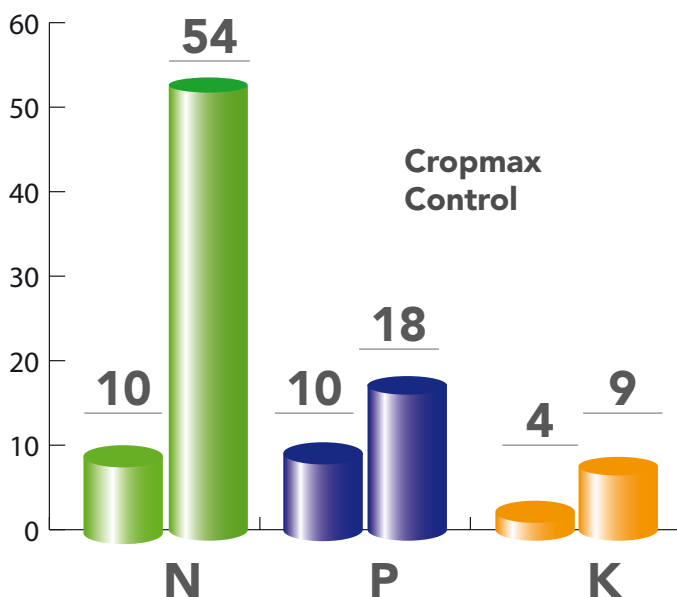
#### Cropmax Composition (contents per 1 litre of product):

N	0.2% (2000 mg N/litre)
P	0.4% (4000 mg P/litre)
K	0.02% (200 mg K/litre)
Iron (Fe)	220 mg / litre
Magnesium (Mg)	550 mg / litre
Zinc (Zn)	49 mg / litre
Copper (Cu)	35 mg / litre
Manganese (Mn)	54 mg / litre
B, Ca, Mo, Co, Ni	10 mg / litre
Amino acids	Ultra Concentrate
Multivitamins, enzymes	+ + +
Growth promoters	auxins, cytokinins, gibberellins

#### Amino acid composition 0/00

Alanine	12	Asparagine	26	Glycine	5
Histidine	1	Methionine	1	Leucine	5
Serine	4	Tyrosine	3	Phenylalanine	3
Arginine	1	Valine	6	Glutamine	17
Isoleucine	4	Lysine	3	Proline	4
Threonine	4	Cystine	1		

Additional absorption of the main feed by the root system



# Cropmax action is based on the interaction of active components

Amino acids – Cropmax composition includes 17 amino acids, most of which are essential, are responsible for cell division and actively influence the shape of the root system and ripening of the fruit.

Trace elements:

Iron - is a part of many enzymes. Without iron, formation of genes and growth of nuclei is not possible.

Zinc - has an important role in plant metabolism, because it is a component of more than 300 enzymes. For plants, especially important is the zinc involvement in the synthesis of the amino acid tryptophan - precursor of phytohormone auxin.

Copper - affects the hydrocarbon and nitrogen metabolism via enzymes.

Manganese - takes part in the photolysis of water during photosynthesis.

Molybdenum - in a plants is a component of the reductase enzyme series. It is closely connected with nitrogen metabolism. The most important enzymes that contain molybdenum are nitroreductase and nitrogenase.

Boron - one of the essential trace elements. Lack of boron damages the exchange of sugars. Polysaccharides are sources of energy.

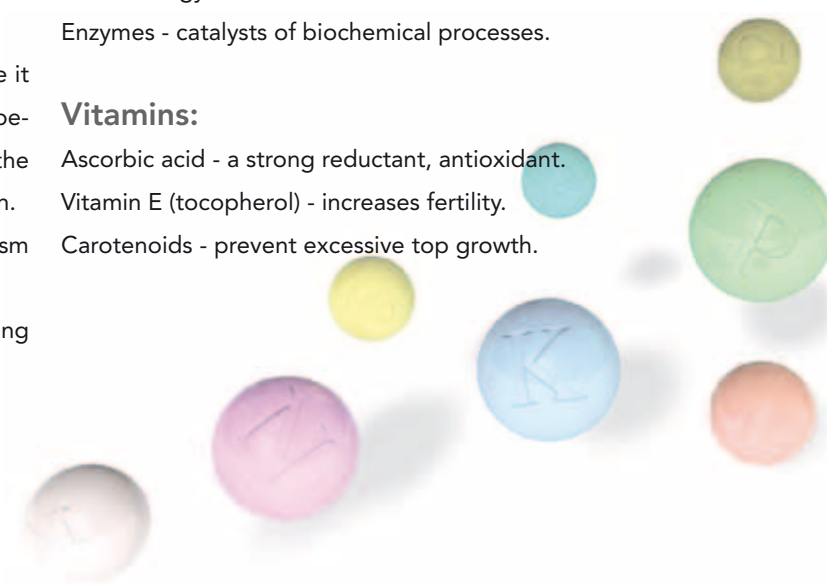
Enzymes - catalysts of biochemical processes.

## Vitamins:

Ascorbic acid - a strong reductant, antioxidant.

Vitamin E (tocopherol) - increases fertility.

Carotenoids - prevent excessive top growth.



## Action mode of Cropmax



Control

Cropmax

### Stimulation of physiological activity

- cell volume support (protecting the water potential of tissue)
- increase in cell number
- improve the synthesis of proteins

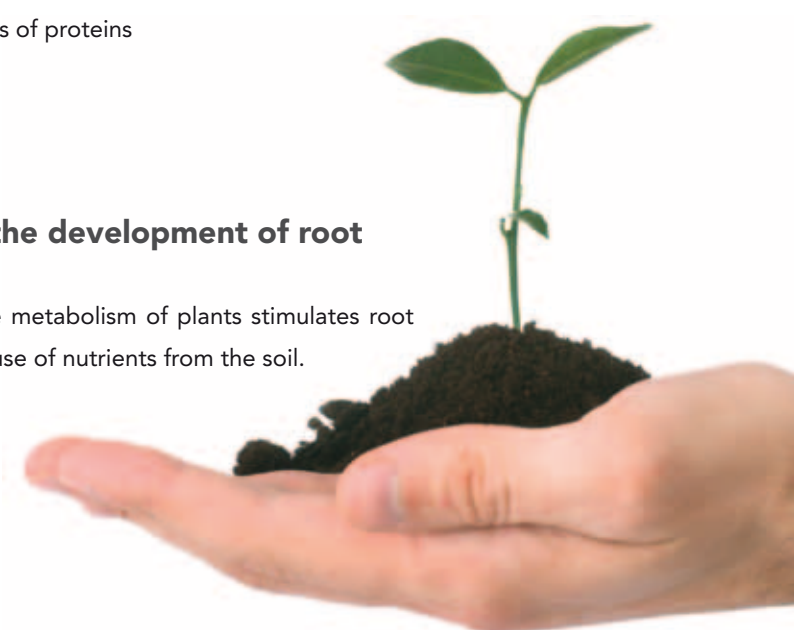


Control

Cropmax

### Direct action on the development of root system

Proactive impact on the metabolism of plants stimulates root growth to enhance the use of nutrients from the soil.



## Systemic action

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- The plant produces more energy needed for its growth and for accumulation of reserves (grain, fruits, roots).
- Due to its systemic action and transportation effect, Cropmax promotes better distribution of minerals throughout the plant in a short time.
- Cropmax stimulates the redistribution of nutrients and reserve substances to young parts that show active growth.
- The product increases the intensity of photosynthesis and prolongs the life of the plant's photosynthetic apparatus.
- Better bioavailability of mineral elements (complementary effect).
- High absorption rate by the plant.





# Efficacy of Cropmax use

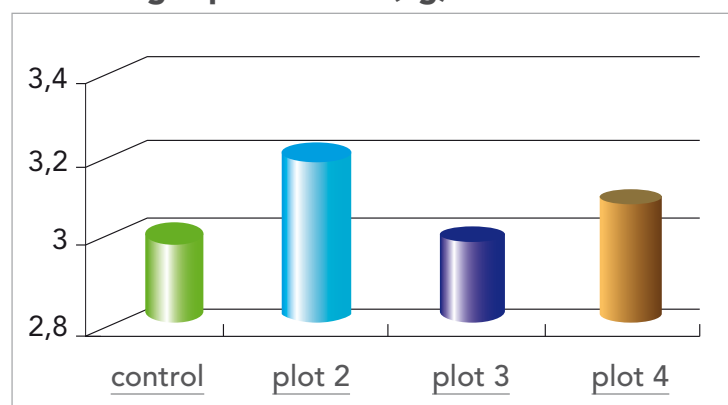
Crop: Apricot  
 Variety: Flavorcot  
 Locality: Carpineta, Italia  
 Performed: Uff. Tecnico, Consorzio Agrario Forli - Cesena - Rimini  
 Time: April - June 2008

Each plot has 1200 m2	applied with:	applied/ha
Control	Water	80 litre
Plot 2	CROPMAX	1,5 litre
Plot 3	Pentekeep	1,5 litre
Plot 4	Ecofert GA	2,5 litre

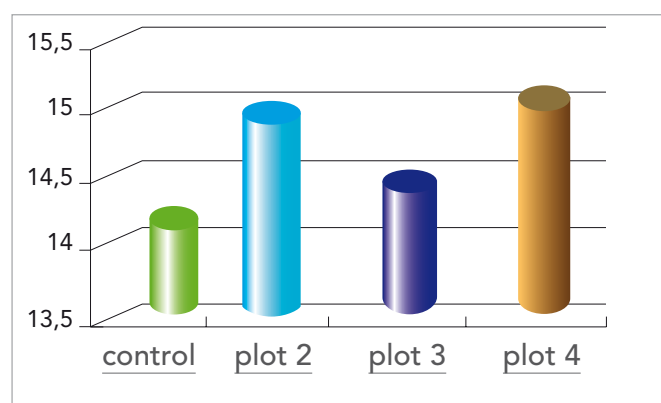
## FINDINGS:

	medium Brix (in degrees)	total weight per 60 fruit	average weight/fruit
Control	14,32	3,026 kg	50,43 gram
Plot 2	15,22	3,238 kg	53,97 gram
Plot 3	14,80	3,014 kg	50,23 gram
Plot 4	15,24	3,156 kg	52,60 gram

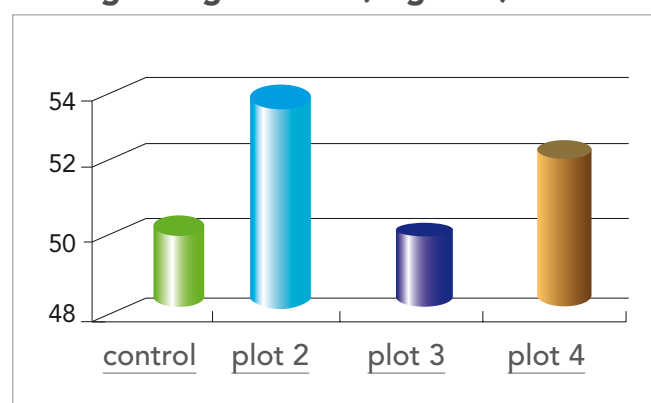
## Total weight per 60 fruit (kg)



## Medium brix




## Average weight / fruit (in grams)



## Efficacy of Cropmax on sunflower


HF-376 hybrid variety on common chernozem

(Institute of Grain and Industrial Crops, Fundulea, Romania)

	Number of treatments	Solution concentration	Fertilizer feed rate l/ha		Productivity, t/ha	Increase		
			Per treatment	Total for all treatments		t/ha	%	t per 1 litre of fertilizer
Control	-	-	-	-	21.09	-	100.0	-
Foliar fertilizer	2	1.0	5	10.0	24.25	3.16	115.0	0.316
Cropmax	2	0.1	0.5	1.0	28.31	7.22	134.2	7.22

## Efficacy of Cropmax foliar fertilizer on vineyards


(Research and Production Station for Vineyards and Winemaking, Drahshan, Romania)

	Concentration	Weight per bunch, grams	Weight per 100 grapes, grams	Productivity of bunches, t/ha	Increase over the control, %	Sugar content, %	Quality rating
Cropmax	0.10	608	1140	20.2	126.2	142	Extra
Foliar fertilizer	1.00	528	1260	17.6	110.0	128	Extra
Control		480	1180	16.0	100.0	130	Class1

## Efficacy of Cropmax on tomatoes

Expres 2 variety on common chernozem

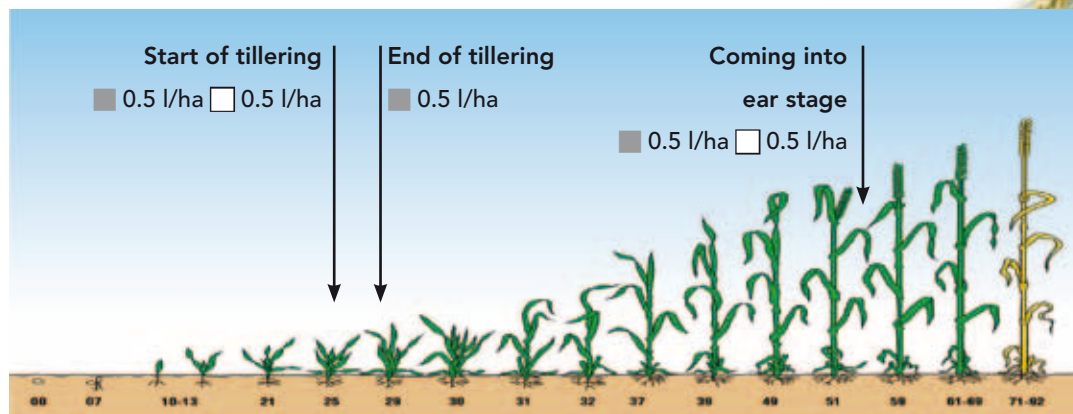
(Institute of Soil Science and Agricultural Chemistry, Iasi, Romania)

	Number of treatments	Solution concentration	Fertilizer feed rate l/ha		Productivity, t/ha	Increase		
			Per treatment	Total for all treatments		t/ha	%	t per 1 litre of fertilizer
Control	-	-	-	-	15.7	-	100.0	-
Foliar fertilizer	3	1.0	5	15.0	18.3	2.6	116.6	1.2
Cropmax	3	0.1	0.5	1.5	20.1	4.4	128.0	13.4

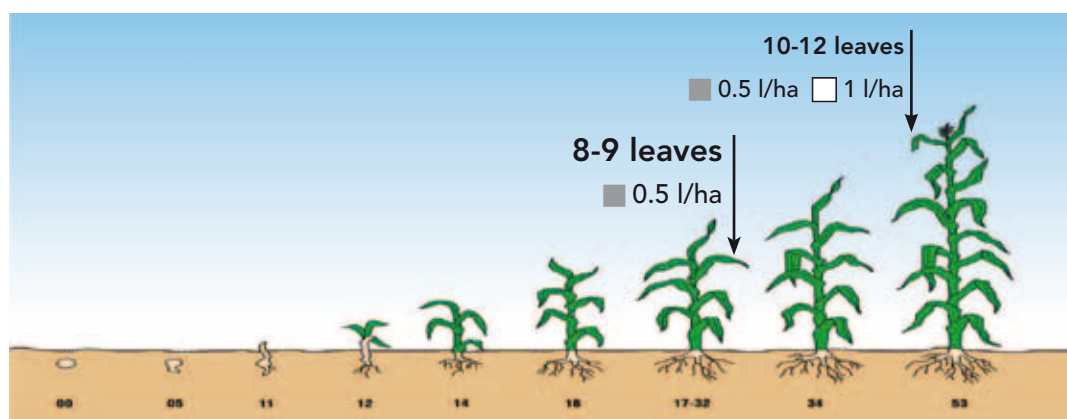


# Procedures for Cropmax application

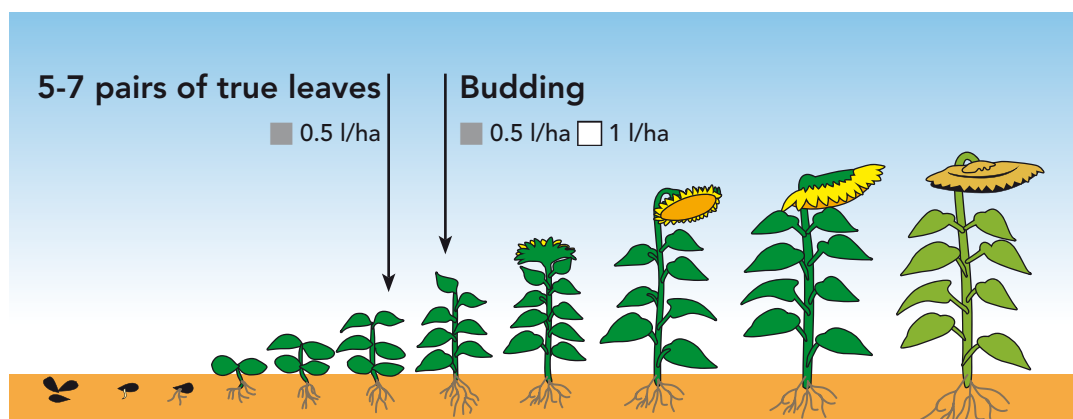
## On grain crops



## On corn



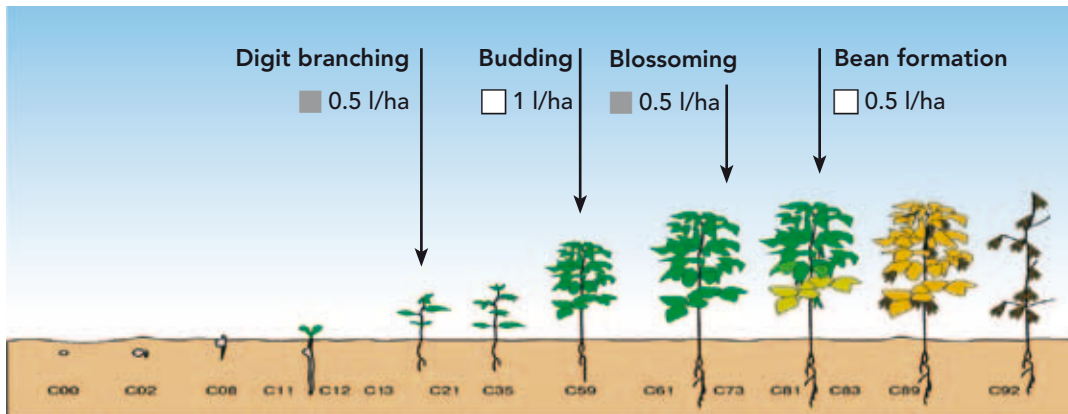
## On sunflower



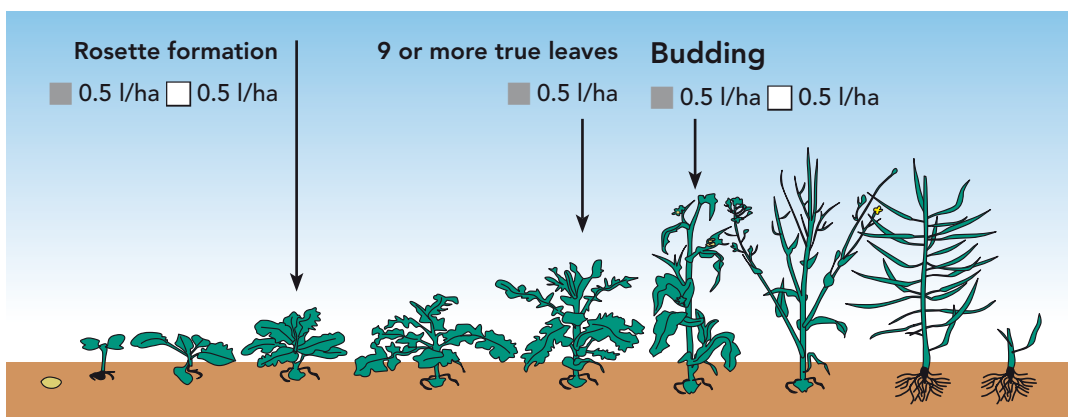
- Plant development phase
- With intensive cultivation technology
- While traditional cultivation technology



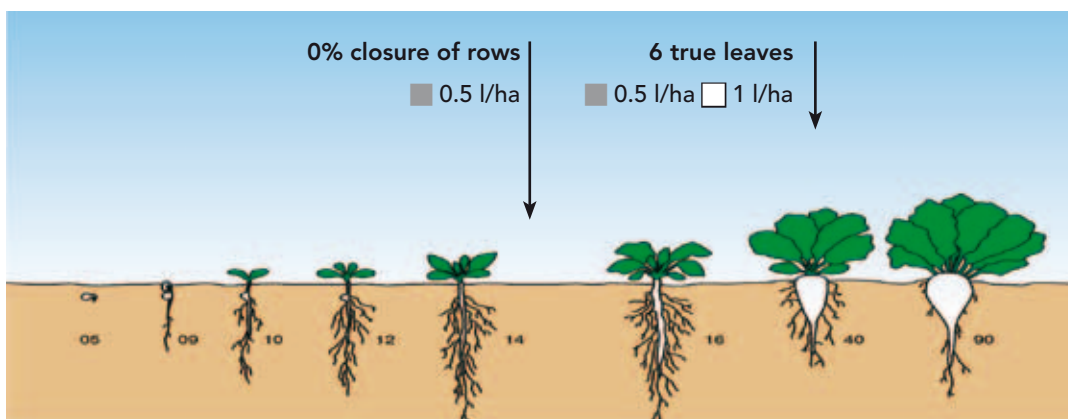
## On soybeans



## On rapeseed

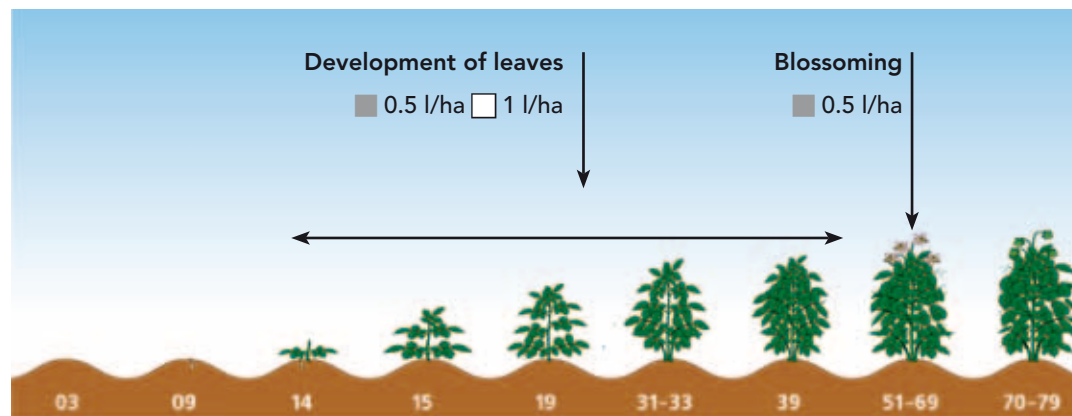


## On sugar beet

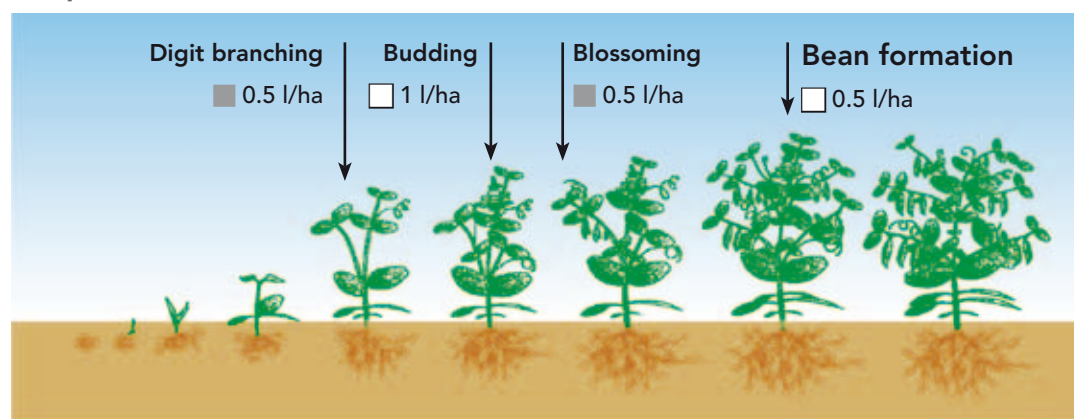


- Plant development phase
- With intensive cultivation technology
- While traditional cultivation technology

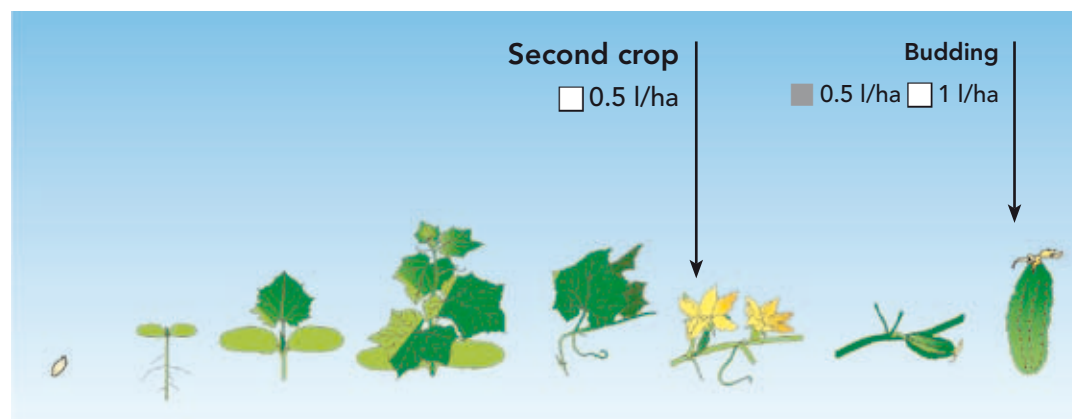
## On potatoes



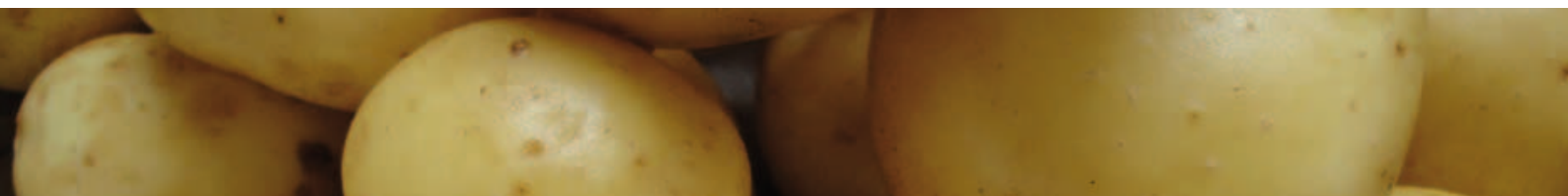
## On peas



## On cucumbers

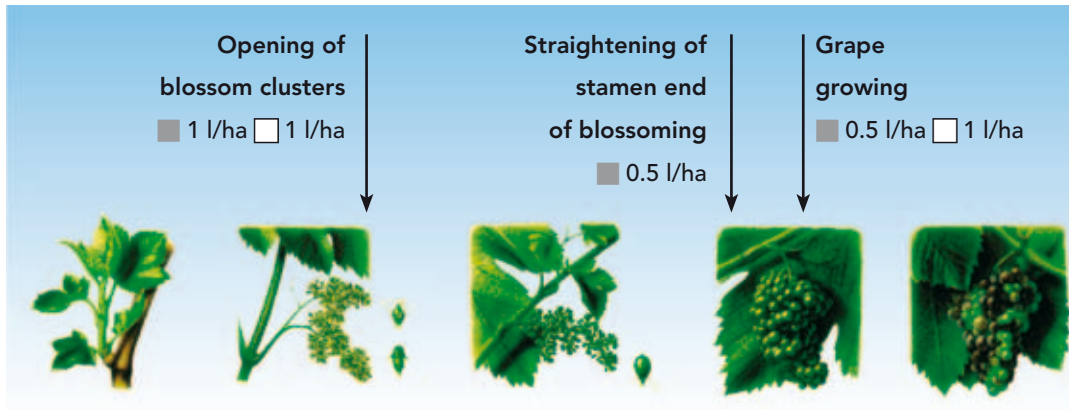


- Plant development phase
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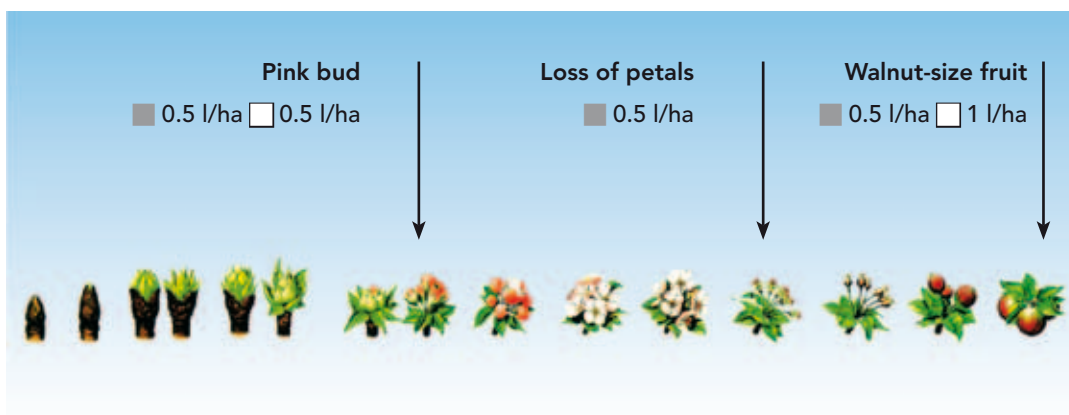




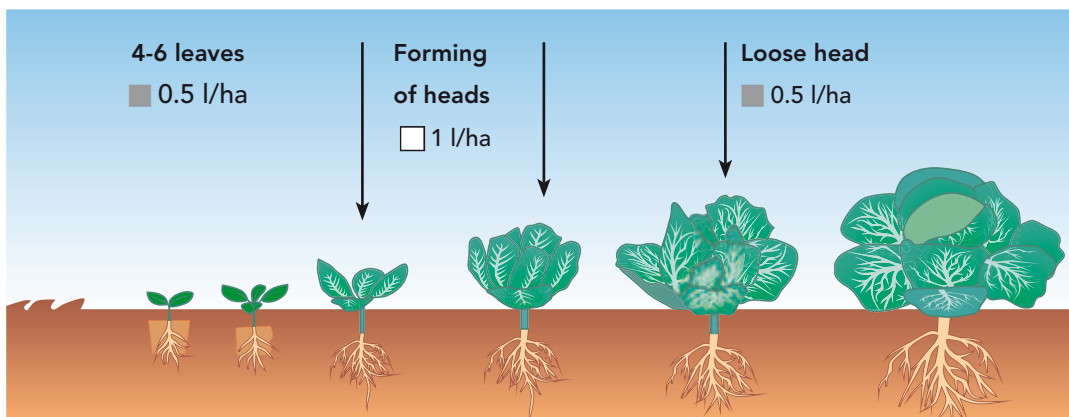
## At the vineyard



## On horticultural crops

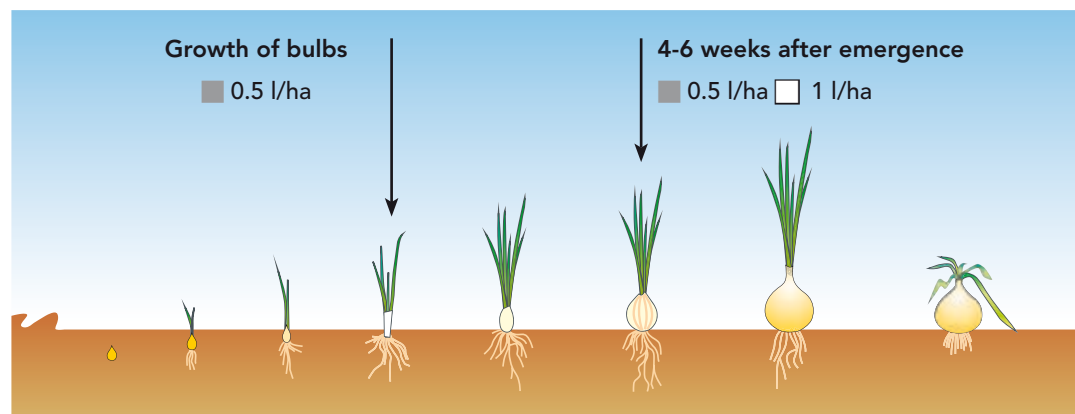


## On cabbage

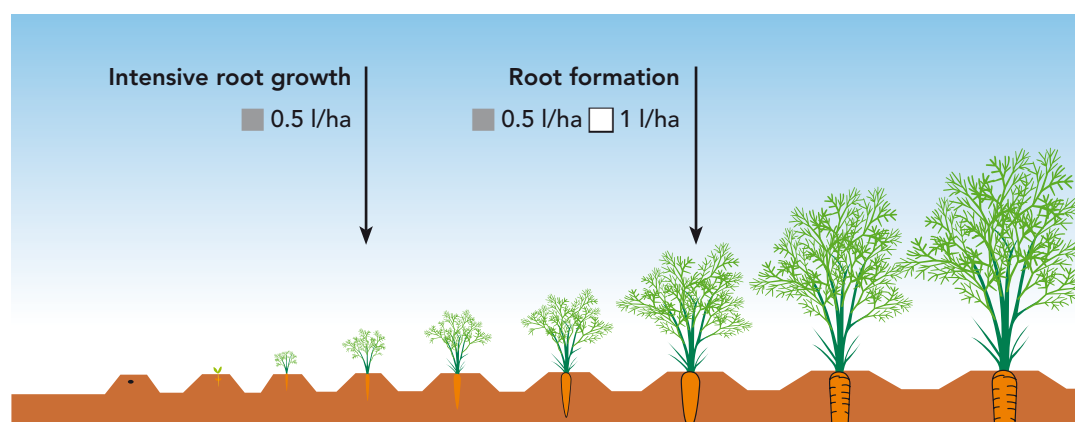


- Plant development phase
- With intensive cultivation technology
- While traditional cultivation technology

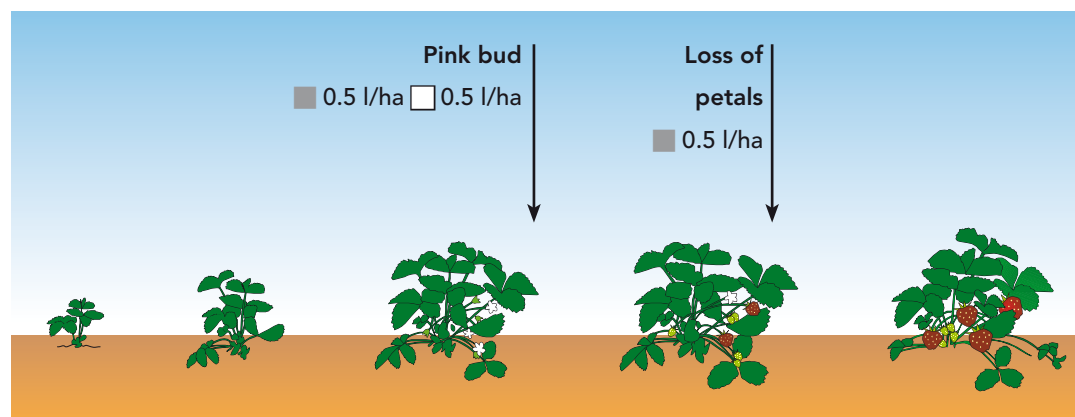
## On onion



## On carrots



## On strawberries



- Plant development phase
- With intensive cultivation technology
- While traditional cultivation technology



# Recommendations on the use of Cropmax

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Cropmax is applied during foliar feeding of agricultural crops, either individually or in working solutions with pesticides. The better the atomization of the spray solution, the higher will be the Cropmax foliar fertilizing efficiency.

- Preparation of working solution: add Cropmax to a clean, half-filled vessel.
- Volume of working solution -150 - 500 l/ha. Apply with continuous stirring.
- Compatibility: Cropmax is compatible with most of the plant treatment products.
- Be sure to conduct preliminary testing.
- Restrictions on use: do not use at low temperatures.
- In the case of high daytime temperatures, apply in the morning or evening hours.
- Minimum storage temperature: 0 °C.

Packaging - Cans of 1 and 20 litres.





**Holland Farming** manufactures fertilizers for professional use.

All products are based on vegetal amino acids combined with chelated trace elements. The products are all used in all kinds of cultivars (from tomatoes to potatoes, from cocoa to coffee and from flowers to cereals) in all climatic conditions, in open field and in greenhouses.

**CROPMAX** is an organic certified liquid fertilizer supplement for both intensive agriculture (vegetables and fruit) and as a booster for extensive crops (cereals and oilseeds).

**TopCrop** is a liquid fertilizer for extensive farming (cereals and oilseeds).

**TéMax** is a watersoluble powder containing NPK in different ratio's combined with amino acids.

Vegetal amino acids are easily absorbed by plants and enable a plant to boost growth, when applied prior to certain changes in plant-physiology (rootsetting, fruitsetting, metabolism).

Improved growth also leads to more photosynthesis, improved ability to NPK uptake and less stress (from deficiencies, temperature or drought).

Using amino acid based fertilizers gives higher yields and better quality production.

**HOLLAND FARMING** from the Netherlands has been producing amino acid based fertilizers since many years and we are proud to be considered as one of the pioneers in this field. We market our products to over twenty countries worldwide. In view of worldwide pollution and the concern for our planet, Holland Farming is contributing to sustainable agriculture with responsible use of worlds resources. Both CROPMAX and TopCrop are organic products and we have certifications with BCS Öko Garantie for organic production.



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**MADE IN HOLLAND | [www.hollandfarming.com](http://www.hollandfarming.com)**

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