

Bio Info Paper

G

190 x 279
3 mm overlap

US English

000090050435/0623

Everything you always wanted to know about organic growing

Tips:



Use quickly

Not only the plants, but also micro-organisms really prosper in a diluted solution of BioFlores and BioVega. It is advisable to use the prepared solution within two days.

1 to 3 times a week

It is important to shake bio-products well before use. Apply diluted nutritional solution 1 to 3 times a week.

Automated dripper systems

It is advisable not to use automatic drip systems, when using BioVega and BioFlores, because micro flora can develop in these systems which can cause blockages. However, if you do decide to use a dripper system then it is advised to:

- use hoses and drippers with a broad diameter
- to rinse the drippers with water after each feeding session

Manual feeding

BioBOOST can be administered manually and trouble-free via automatic drip irrigation and/or via spraying the leaves. For spraying the leaves, use 2 ml BioBOOST per litre of water.

Do not acidify

Due to the presence of pH buffering fruit acids in BioVega and BioFlores, the nutritional solution does not need to be acidified. Because the fruit acids serve as natural chelates, the nutrients can be absorbed across a wider pH course (up to pH 7)

BioBOOST plus PK 13-14

BioBOOST is not a nutrient but a metabolism stimulator and for that reason supports the working of other CANNA products, such as PK 13-14.

The EC of an organic fertiliser

Measuring the EC value of an organic nutrient, like you would do using a mineral fertiliser, is useless.

The nutrient elements that a mineral fertiliser is compiled of are measured when you measure an EC.

Organic nutrients are not made of mineral salts but organically bound elements. An accurate EC value is therefore impossible to measure. Use organic fertilisers as described on the product label.

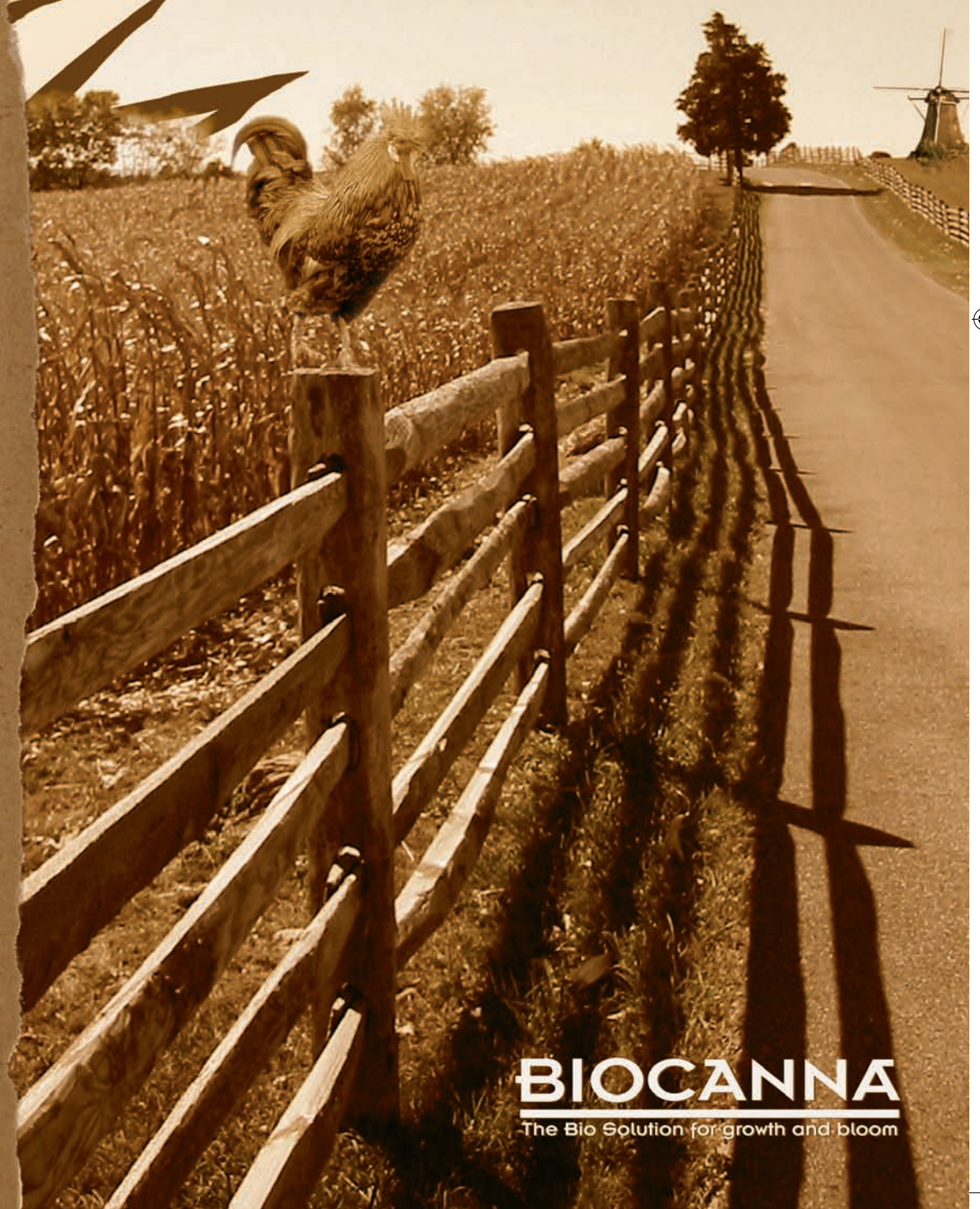
Growguide BIOCANNA

	Duration	Light	Bio Vega ml/GAL	Bio Flores ml/GAL	Rhizotonic ml/GAL	Cannazym ml/GAL	BioBOOST ml/GAL
Start Root formation	1 week	18 hrs light/day	4 - 8	-	15	-	-
Vegetative stage Fast growth	1 to 3 weeks	12 hrs light/day	8	-	4 - 8	10	-
Generative stage Growth stagnate first sign of fruit pistil formation appears	1 to 2 weeks	12 hrs light/day	-	15	2	10	4
Generative stage Small fruit develop	1 week	12 hrs light/day	-	15	2	10	2
Generative Fruit increases in size	2 to 3 weeks	12 hrs light/day	-	15	2	10	2
Final 7-14 days Fruit increases in size and ripen	Final 1 to 2 weeks	12 hrs light/day	-	-	-	10	2

The guidelines in the table are not 'written in stone' but are intended more as a help for beginner growers through the development of a sophisticated fertilisation strategy based on knowledge and experience. The best fertilisation strategy is further determined by factors such as temperature, humidity, plant type, root volume, moisture percentage in the medium and watering strategy.

The transfer from Bio Vega to Bio Flores is when the first flowers begin to grow. This is after 1 to 3 weeks, 12 hour lighting.

BIOCANNA Infopaper



BIOCANNA
The Bio Solution for growth and bloom

Everything you always wanted to know about organic growing



Really growing organic!

More and more people are realizing that growing organic is the way of the future. Everyone has something to say about this but what it means exactly is not always clear.

The most important factor about organic production is respect for everything that is alive: growing in an honest and sustainable way. In practice this means that no fertilisers, pesticides, synthetic growth promoters and the like will be used and that the aim is to deal with nature in a balanced manner.

History of farming

Farming started 12,000 years ago, at the end of the last ice age. The increasingly warmer climate enabled people to start growing crops for themselves and to remain in the same location for a longer period of time. This enabled us to finally move on from the insecure lifestyle of hunting and collecting. This resulted in the first civilizations (Syria, Mexico and China). Back then we did not know anything about nutritional elements. It was Justus von Liebig who showed the relationship between nutritional elements and plant growth in 1838 through experimental research. Eventually this has led to the introduction of fertilisers; a true revolution in farming. The use and working of the elements NPK was applied with variable success. Nitrogen (N) was obtained from coal tar. Phosphorus (P) could be obtained from bones. Potassium (K) was found as raw material in the mines of Chile and India.



Organic farming

The discovery of fertiliser contributed enormously to people's prosperity. Unfortunately there are also disadvantages to modern farming, such as a deterioration of the soil quality and the environment. Dissatisfaction with this led to two new farming movements in the last century: organic farming and biodynamic farming.

The aim of organic farming is to produce in a sustainable manner and in harmony with nature. In order to realise and maintain this, organic farming is based on three basic principles:

- non use of chemical pesticides
- non use of chemical fertilisers
- aiming for a wide biodiversity

Through the implementation of these rules, a natural growth environment is created with a good structure and a healthy micro flora in the soil.

These principles are supported in the use of BIOCANNA products.



Eko – Products

With the introduction of the BIOCANNA products, it is possible to grow organic crops in a controlled manner for the first time.

This is a critical solution, especially where plants are used for medicinal purposes, because crops grown on BIOCANNA can be offered as naturally grown when offered for consumption.

Besides these health aspects, organically produced products are also more in keeping with the views of many of their users and their flavour is preferred by many.

There is a reason for a high demand for organic products.



Biodiversity

There are many definitions of the term biodiversity. The simplest definition states that biodiversity is the variability under living organisms from all sorts of origin.

The wider the biodiversity, the wider the number of organism types.

The main advantage of many organisms is the huge stability to the ecosystems they help form. When a system with a wide biodiversity is unbalanced, the organisms will seek a new balance.

Due to the fact that BIOCANNA products increase the biodiversity of the root environment, this environment is better protected against fluctuations.

This lowers the chance of the development of pathogenic moulds and bacteria.

Because their development is countered, the resistance of the roots environment is increased. This results in a healthy plant and therefore in a high and healthy yield.

BIOCANNA or CANNA?

BIOCANNA products as well as CANNA products are quality products. CANNA products have been specially developed for an optimum interaction between the nutritional and the growth medium based on the precision farming theory in which the plant is fed directly and precisely.

BIOCANNA is a development of the vision for organic farming and is also based on direct as well as indirect nutrition to the plants. This means that BIOCANNA products stimulate the micro flora around the roots, which helps the plant absorb the necessary nutrients and also protects the plant's root environment. A complex ecosystem is created as it were, which is kept in balance at all times by the plants and other organisms.

Organic production process in accordance with traditional methods

BIOCANNA fertilisers are produced in accordance with a complex process. An important step in this process is fermentation. Fermentation is the breaking down of complex substances by means of micro-organisms. Among other things, fermentation is used in the production of wine and beer.

After long research into special micro-organisms and vegetable raw produce, CannaResearch has succeeded in

developing a 100% controlled fermentation process. This makes it possible to obtain a consistent product with exactly the right mineral composition and organic ingredients. The substances in BIOCANNA products are immediately absorbable, and stimulate the plant's metabolism and resistance. In addition, they improve the soil quality and the biodiversity.

Thanks to the unique fermentation process BIOCANNA products are rich in bioactive substances, such as fruit acids and oligosaccharides.

Fruit acids

BIOCANNA's liquid fertilisers are rich in a special mix of beneficial fruit acids. Fruit acids are organic acids that are responsible for the pleasant taste in fruit, among other things. The diversity of fruit acids is enormous and they are divided based on the length of their carbon chain. The short chains are capable of forming complex chelate-like compounds with trace elements, which also causes them to be easily absorbed with less than ideal acidity levels. An example is glucuronic acid, which also has an antibacterial component and is practically impossible to imitate synthetically.

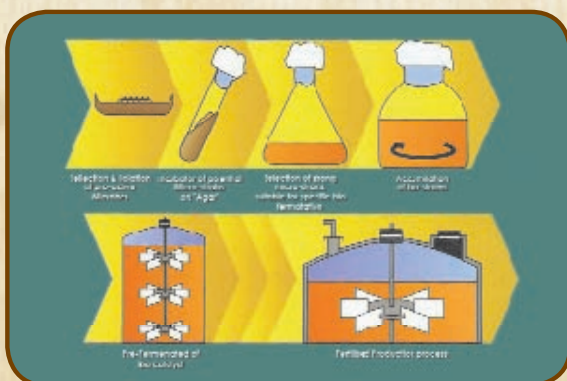
Long chains such as polyuronic acid improve the metabolism and stimulate the secretion of harmful substances from the cell. The long fruit acid chains provide a natural long-term durability too the product.



Oligosaccharides

BIOCANNA products are rich in oligosaccharides. Everyone who has worked with CANNA's renowned Rhizotonic knows the stimulating power of oligosaccharides.

Oligosaccharides are natural carbon compounds with a regulating function in the growth of all plants. They were discovered several years ago and the number of functions attributed to these substances is still growing. Besides their regulating function for growing and blooming plants, oligosaccharides increase the plant's resistance to harmful moulds and bacteria. Oligosaccharides activate the production of natural antibiotics that the plant uses to fight pathogenic organisms. Besides this, oligosaccharides stimulate the growth of the plant above ground as well as its roots.



Everything you always wanted to know about organic growing

Growing in an honest and sustainable way!

Organic is said to be good for you and healthy. Many companies cleverly use this fact and call their products biological or organic. However, a critical comment must be made here. Not all products with the name 'bio' are biological or organic and these products are not per definition harmless.

BIOCANNA fertilisers are guaranteed 100% organic and have been legally tested

on these criteria. Products grown with BIOCANNA fertilisers may be called organic or ecological (abbreviated EKO in Dutch), provided they are grown organically and in accordance with the international SKAL guidelines. CANNA protects the production process from the raw produce to the final product so that you are guaranteed the best result.

Quality proves itself!

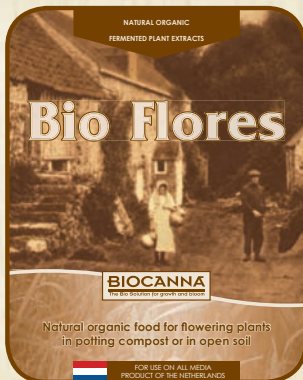
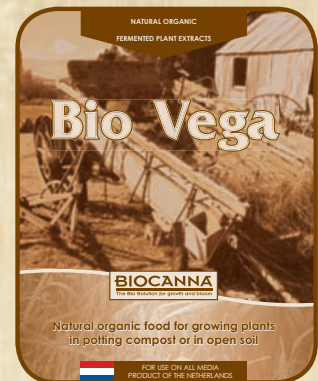
Bio Vega

Bio Vega has been developed especially for the plants' growth phase.

Bio Vega is rich in highly absorbable betaine nitrogen that is released according to the plant's needs.

The bioactive substances in Bio Vega stimulate the root

development and the formation of strong growth shoots. This allows even the fastest growing plants to optimally start their blooming period.



Bio Flores

The plant's nutritional needs change at the beginning of the blooming period.

Bio Flores provides the plant with the necessary minerals and bioactive substances in proper proportions for an exuberant bloom, scent and flavour. Among other things, Bio Flores contains

hop extract. Hop extract contains substances such as lupulin, luparol, lupulon and humulon, which provide the plant with extra blooming power.

BioBOOST

BioBOOST is a yield increasing agent for all cultivation systems and can be applied in combination with all CANNA's nutritional lines and additives. BioBOOST is not a nutrient but a natural fermented plant extract with bloom stimulating characteristics that are also responsible for a more round flavour. BioBOOST was developed

by CannaResearch from plant extracts from tropical rainforests and is a true boost for plants. The bioactive substances result in an heightened metabolism that is exactly what the plant needs during the blooming period. The plants produce more fructose, become healthier and stronger and are less vulnerable to diseases and plagues.



The result is a higher yield with a strong, exuberant and vital fructification.

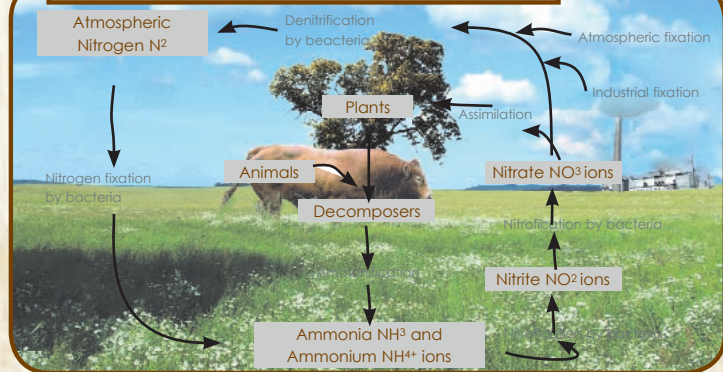
Everything you always wanted to know about organic growing

Different NPK?

Several minerals are important for the plant to grow and bloom properly. Quantitatively, the most important are nitrogen (N), phosphorus (P) and potassium (K). It is important that these and other minerals are present in the proper proportions in plant food. The big difference between organic and mineral fertilisers is that organic fertilisers are in part organically bound. This means that they can be found in a form that can also be found in nature. Because they cannot be easily measured in this form, the values from BIOCANNA products will deviate from those of CANNA products, while the plant is able to observe the same amount of minerals.

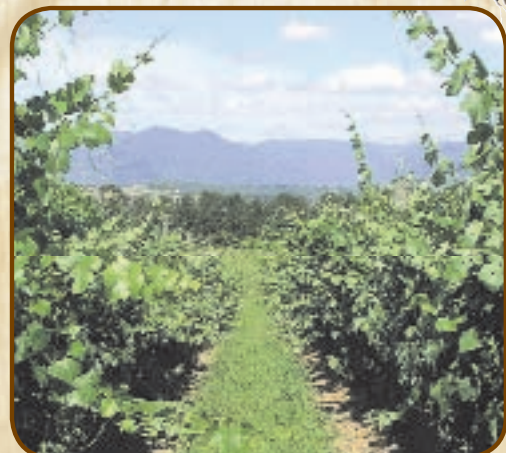
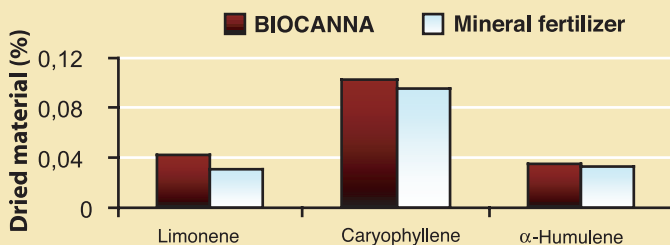


The Nitrogen Cycle



Healthier and tastier!

Good health is one of the most valuable possessions that a man can have. Although it has not been scientifically proven that organically grown products are healthier, research does suggest this. Scottish research for example shows that organic crops contain more salicylic acid, which protects against cardiovascular diseases. CannaResearch has shown that products grown with BIOCANNA have a higher percentage of certain essential oils such as: Limonene, Caryophyllene and α -Humulene. These essential oils determine the scent and flavour. It is a known fact that limonene improves blood circulation and has anti-inflammatory properties. Besides the fertilisers' effects on the plant's production of healthy substances, through an improved eco system and increased resistance, you will be less exposed to pesticides. Of course this is another important reason why growing organic with BIOCANNA is healthier.





Vegetable raw produce

Bio Vega, Bio Flores and BioBOOST are vegetable-based and do not contain any animal residual products. The main advantage of this is that the product's composition is much better tuned to the plant's needs.

An additional advantage is that the product cannot contain any animal pathogenic organisms, such as influenza viruses (for example chicken pest) that can be harmful to the health of humans.



Certified Organic

The Organic Materials Review Institute (OMRI) is a 501(c)(3) nonprofit organization that specializes in the review of substances for use in organic production, processing, and handling.

OMRI's organization is broadly representative of the industry segments with members distributed among certifiers, farmers, suppliers, processors, handlers, consumer organizations, and animal welfare and environmental groups.

Materials review is conducted as a transparent, third-party review of products intended for use in certified organic production, handling, and processing. The OMRI Listed[®] seal assures the suitability of a product for certified organic production, handling, and processing.

Besides several European organic accreditations, BIOCANNA fertilisers carry the OMRI certificate.

OMRITM
L i s t e d

CAN-4295