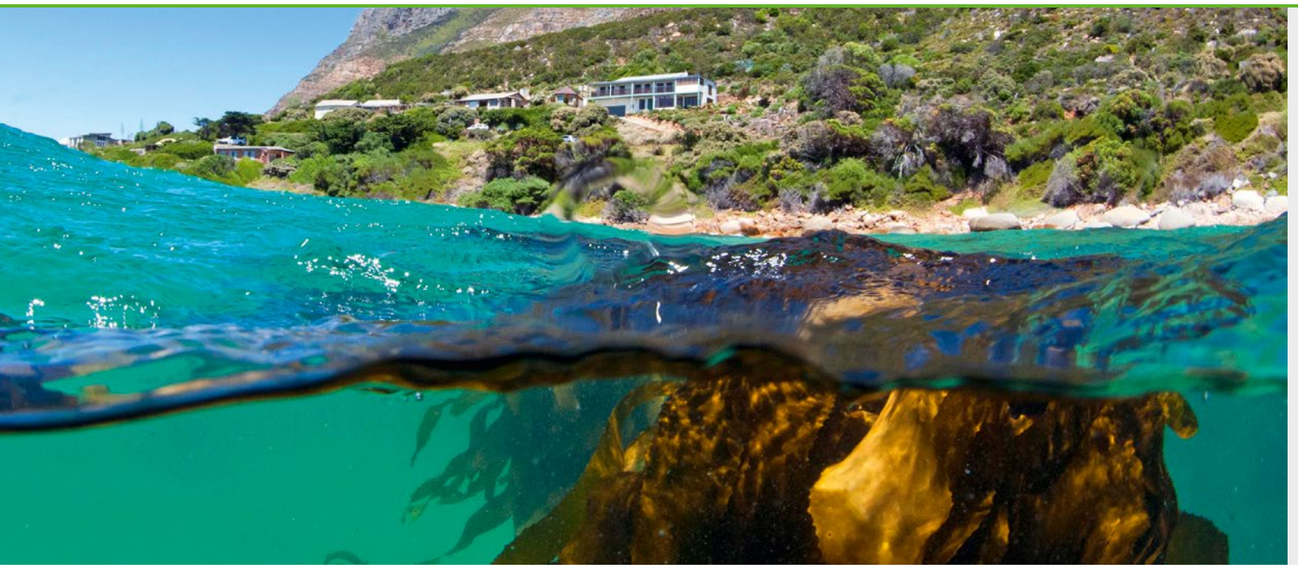
EXPERTS FOR GROWTH

COMPO EXPERT®

Basfoliar® Kelp O SL
Biostimulant from seaweed



Basfoliar® Kelp O SL

Biostimulant based on extract from the *Ecklonia maxima* seaweed

To stimulate root and plant growth and increase plant stability against abiotic stress

Color: yellowish
pH: 3.2
Spec. weight: approx. 1.02 kg/l at 20 °C
Packaging: 10 liter canister

organic BIO farming

Basfoliar® Kelp O SL – Biostimulant from seaweed

What are biostimulants?

"Plant biostimulant" means a material which contains substance(s) and/or microorganisms whose function, when applied to plants or the rhizosphere, is to stimulate natural processes to enhance/benefit nutrient uptake, nutrient efficiency, tolerance to abiotic stress, and crop quality, regardless of its nutrient content (according to EBIC; European Biostimulants Industry Council).

Extracts from seaweeds play an important role as a biostimulant; their composition, origin and extraction processes have a significant influence on their effective properties. In Basfoliar® Kelp O SL these factors are optimized and guarantee a high content of bioactive ingredients.

Highest demands on the seaweed raw material

The *Ecklonia maxima* seaweed used in Basfoliar® Kelp O SL grows in the cold and clean waters of the South African Atlantic.

It is carefully harvested by hand and immediately gently processed through cold extraction (CMP- Cold Micronisation Process). The sensitive, valuable organic cell components remain thereby fully preserved in their natural form and effect. The obtained *Ecklonia maxima* seaweed juice is rich in various bioactive ingredients. The special origin provides for a unique composition. Strict analysis and controls guarantee a constant product quality.

Highest quality as a feature

The ingredients in the natural source material of the *Ecklonia maxima* seaweed are affected by seasonal fluctuations. In order to ensure the quality and the high content of bioactive ingredients, each batch is first analyzed for its composition. For this purpose, batch samples are sent to independent expert laboratories to determine the biostimulant levels. The standardization is carried out according to these results to ensure that each batch is of consistent quality to ensure optimal and consistent efficacy in the field.

Basfoliar® Kelp O SL contains only substances that are listed in Annex I of the Regulation (EU) 2021/1165. Therefore Basfoliar® Kelp O SL is suitable for use according to Regulation (EU) 2018/848.

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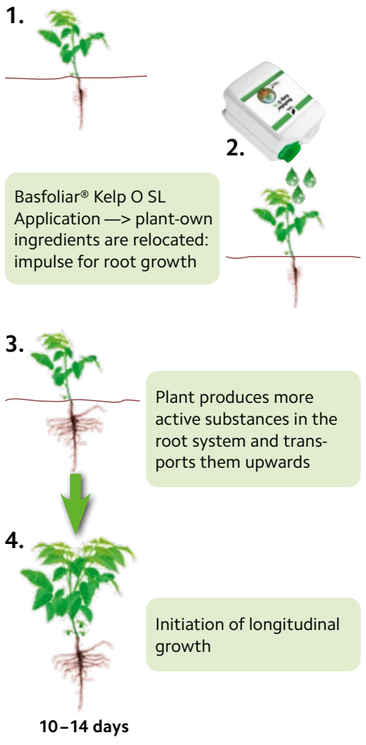
How does Basfoliar® Kelp O SL work?



1. Initial situation

In the plant the bioactive substances auxin and cytokinin are in a certain ratio to each other. In this state no additional growth impulses are given.

2. Application of Basfoliar® Kelp O SL

The Basfoliar® Kelp O SL application helps to move the internal balance in the favour of auxins. The plant receives the impulse and starts with increased root growth.

3. and 4. Reaction of the plant

The increased root formation allows a better soil volume exploration and leads to better water and nutrient uptake. The emergence of many new roots forces the release of the plant's own active ingredients formed there (e.g. cytokinin). After about 10–14 days the balance is restored. The higher content of the active ingredients formed in the root tips leads in turn to increased above-ground growth.

Basfoliar® Kelp O SL

- Stimulates root development. This leads to an efficient and higher absorption of water and nutrients, and thus to healthy and resistant plants.
- Through targeted applications, the plants can grow more efficiently and form a higher yield and/or higher quality. The overall strength of the plants is improved and increases resistance to environmental stress.

Basfoliar® Kelp O SL in potatoes

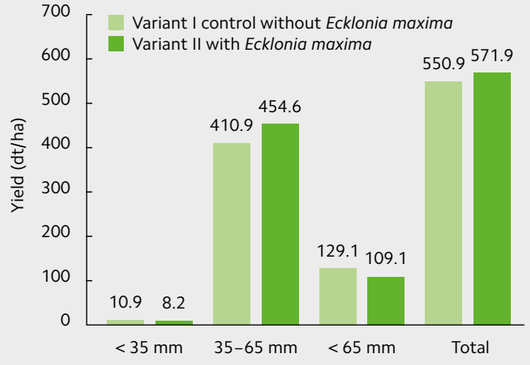
Basfoliar® Kelp O SL is the perfect solution for potato cultivation, by increasing tuber set and the amount of marketable yield. Basfoliar® Kelp O SL, used as a dressing (spray treatment for laying the potato) increases the tuber set, especially targeted for potato varieties, which have a low tuber set. This application can also be used for production of seed potatoes. Leaf applications with Basfoliar® Kelp O SL improve the tuber size and the net marketable yield, especially for varieties with genetic high tuber set and the tendency to distinct undersize proportion. For this reason, when using Basfoliar® Kelp O SL, the variety-specific properties must be observed. Best results are achieved with the following application methods:

Low tuber set: dressing + leaf treatment (1–2 times)
High tuber set: only 2 leaf treatments with an intervall of at least 14 days

The result clearly shows that after application of the seaweed extract of *Ecklonia maxima* the yield of the sorting 35–65 mm has increased. The under- and oversizes have decreased in parallel. The overall effect is very positive.

1st spraying: 07.06.08 (15 cm plant height) 3 l/ha leaf treatment
2nd spraying: 21.06.08 (shortly before row closing) 3 l/ha leaf treatment

Harvesting 22.09.08, 2.22 m row clearing, repeated 3 times, here 7 plants



COMPO EXPERT, Stulln (Oberpfalz) 2008, variety: Fasan

Basfoliar® Kelp O SL – as seed dressing for increased nutrient uptake and increased resistance

Basfoliar® Kelp O SL is used in the seed dressing of barley, wheat, rye, triticale, oats, spelt and durum at 250 ml/dt grain seed. There are also several positive experiences on vegetables (e.g. onion, 500 ml/dt seeds). The product can be used alone or in mixture with other dressing components. The homogeneous, aqueous seaweed extract guarantees a good technical dressing with a homogeneous dressing pattern.

In the germination and emergence phase a number of biotic and abiotic stress factors can delay growth and lead to plant losses. A fast establishment and a rapid youth development are therefore fundamental for a high field emergence and a homogeneous crop population.

Basfoliar® Kelp O SL – as seed dressing for increased nutrient uptake and increased resistance – promotes growth in this sensitive phase, so that the young plant is able to grow through an early leaf development quickly, use the solar energy and achieve a higher yield (see table below).
A stronger young plant with better rooting is in a good position when mechanical weed control is used.

Trial Basfoliar® Kelp O SL as seed dressing in winter wheat
Variety: Midas; location Salmhof (Austria) 2019; extra trial

	with fungicide dressing	with fungicide dressing plus Basfoliar® Kelp O SL (250 ml/100 kg seed)
Yield in dt/ha	49.97	53.94*
relative in %	100	107.9*

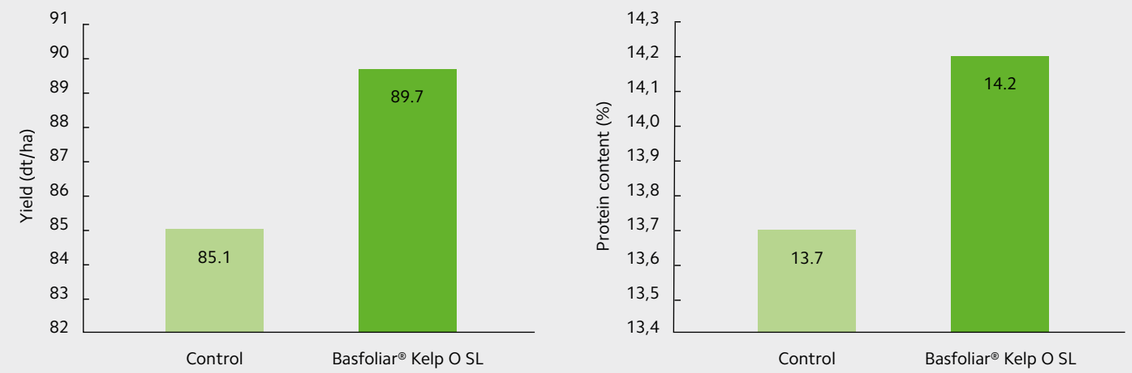
* GD 5%: 2.77; significant deviation
Source: Probstdorfer Saatzucht Ges.m.b.H & CoKG, A-2301 Groß Enzerdorf

Basfoliar® Kelp O SL in winter wheat

Trial results

Basfoliar® Kelp O SL results in positive effects in many crops on yield and quality formation. The increase of vitality and the stabilization of the plants against stress situations determine the success.

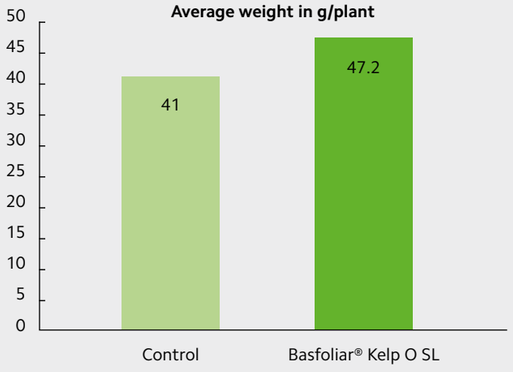
Thus, for example, in winter wheat at an application rate of 3 l/ha (start of stem elongation BBCH 30), in addition to a yield effect, also an increase in the protein content is determined.



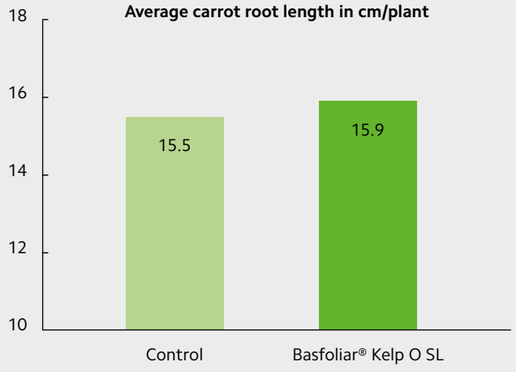
COMPO EXPERT France (Faramans) 2016, variety Calabro. Basfoliar® Kelp O SL with 3 l/ha in BBCH 30, N-fertilization 174 kg N/ha

Basfoliar® Kelp O SL in carrots

Also in vegetables a positive effect of Basfoliar® Kelp O SL can be observed. As shown in the experiments with carrots, the average weight of the plant and the root length is influenced. For this purpose Basfoliar® Kelp O SL was applied via fertigation (3 l/ha at 10 and 15 cm plant height). The results show a significant increase in the weight of individual plants. This is also due to the increased average carrot root length. The impact of the biostimulating effect on the root is here particularly comprehensible.



COMPO EXPERT Spain 2013, La Colonia, San Lugar de Barrameda, Cádiz.

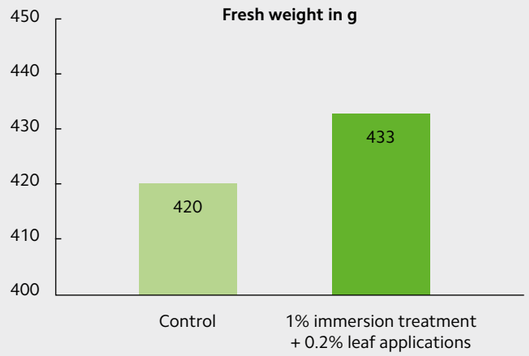


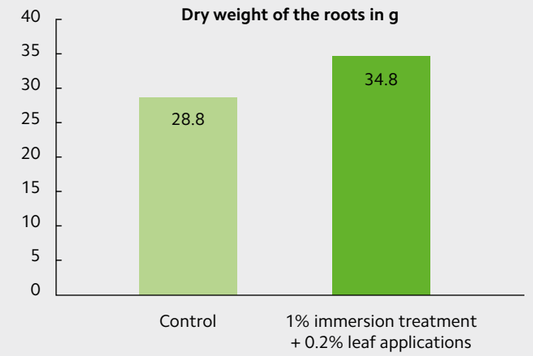
2 applications with 3 l/ha each via fertigation at 10 cm and 15 cm height.

Basfoliar® Kelp O SL in lettuce

In lettuce, the effect on root formation and individual plant weight after application of Basfoliar® Kelp O SL was proven. Both parameters increased after treatment compared to the untreated variant. The combination of an immersion treatment before planting and subsequent 2 foliar applications at 0.2% was particulary successful. All in all the plant should have sufficient time after the first application (impulse) to react, before an additional application is carried out. An interval of at least 14 days is recommended here.

Roots of lettuce plants after treatment with Basfoliar® Kelp O SL
Left: 1% dipping treatment + 0.2% leaf applications. Right: control.





COMPO EXPERT; Münster-Wolbeck.
Planting 06.06.2011, harvest 28.07.2011, immersion treatment at planting, leaf application 21 and 42 days after planting.

Basfoliar® Kelp O SL in romana lettuce

The combination of immersion treatment and leaf application was also carried out on romana lettuce in trials. While the concentration of the immersion treatment was also 1%, the concentration of the foliar treatment was increased to 0.3%. Compared to the untreated control an increase of plant size and a higher number of leaves (growth advantage) could be achieved.

COMPO EXPERT Spain 2013, Novelda
Combination of root immersion at planting (1%) and leaf application (0.3%). Planting: 20.04.2013, leaf treatment: 10.05.2013, test evaluation: 20.05.2013

	Height (cm)	Width (cm)	Number of leaves
Basfoliar® Kelp O SL	22.8	22.4	10.8
Control	18	20.3	10.5

Left control. On the right Basfoliar® Kelp O SL.

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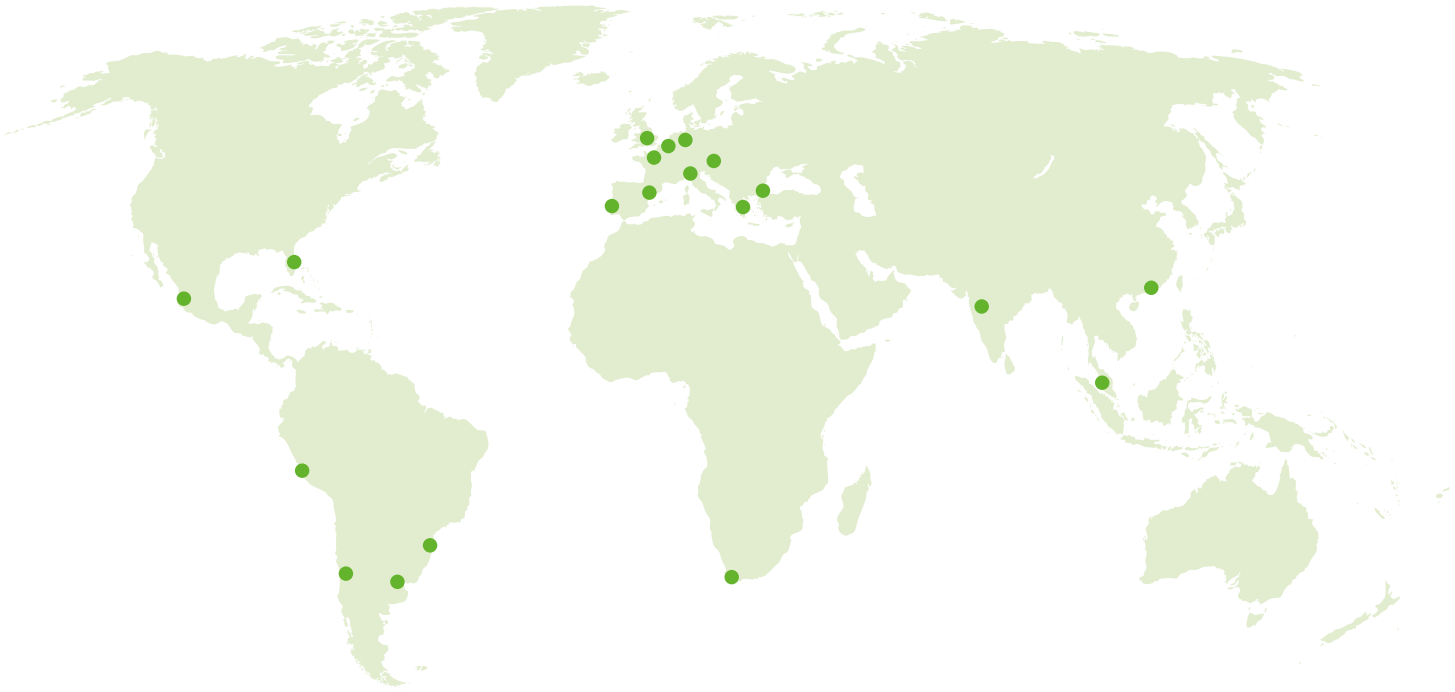
EXPERTISE AROUND THE WORLD



COMPO EXPERT GmbH
Krögerweg 10
48155 Münster
Phone: +49 251 297981-000
Fax: +49 251 297981-111
E-Mail: info@compo-expert.com

www.compo-expert.com