

TECHNOLOGYPROFILE

Selva™

Selva is an *Ascophyllum nodosum* seaweed extract for consideration during crop establishment, flowering and environmental stress. Its algal organic fractions and modest potassium contribution complement the existing nutrition programme. Review the crop stage, extract composition and current water and nutrient supply to define its role in the growing programme.

1 Product identification

Field	Detail
Product name	Selva™
Category	Biostimulants
Principal components	<i>Ascophyllum nodosum</i> seaweed extract
Target crops	Grapes · Citrus · Strawberry · Blueberry · Tomato · Cucumber
Agricultural purpose	Growth transitions & environmental resilience

2 Product role and biological basis

Ascophyllum nodosum extract

Ascophyllum nodosum provides a specific algal starting point for organic fractions associated with plant responses to growth and environmental change.

Growth-stage transitions

Establishment, new growth and reproductive development demand coordination between roots and canopy. Seaweed-derived materials fit programmes addressing these transitions.

Complementary nutrition

A low nutrient grade keeps the focus on algal fractions while allowing its potassium contribution to be counted separately.

3 Composition and material characteristics

Ascophyllum nodosum extract

Ascophyllum nodosum is the algal basis of Selva. Seaweed extracts contain several organic fractions whose composition reflects the starting algae and extraction process. This material profile connects root establishment and seasonal growth transitions with research on plant responses to environmental stress.

Organic fractions and mineral nutrition

The algal organic fractions are considered alongside the accompanying potassium. Separating these contributions helps position seaweed nutrition within a crop programme: physiological support during development, with the mineral contribution included in the nutrient balance.

4 Published research

1. Santaniello et al. tested an *Ascophyllum nodosum* extract in *Arabidopsis* under water limitation

The study reported changes in drought responses, stomatal behaviour and photosynthetic protection.

Agricultural relevance

Algal-material study: *Ascophyllum nodosum* extract in *Arabidopsis* under water limitation. The findings describe the extract and experimental conditions reported in the paper.

Santaniello et al. (2017), *Frontiers in Plant Science*
<https://doi.org/10.3389/fpls.2017.01362>

5 Crop programmes and application context

Relevant to vegetables, citrus, grapes and berries where establishment and seasonal growth transitions need attention. Fit depends on crop stage, water supply and the condition causing weak growth; seaweed materials cannot resolve root-zone salinity or a major nutrient deficiency on their own.

Tomato and cucumber establishment

Root establishment and the transition from nursery to production are relevant contexts for seaweed nutrition. New growth, root distribution and plant uniformity complement observations of water supply and the existing nutrient programme.

Citrus growth transitions

Spring flush, flowering and fruit set create overlapping demands on the tree. Seaweed nutrition fits a programme that follows root activity, canopy condition and water availability through these transitions.

Grapes, strawberry and blueberry

Canopy function and fruit development are separate management objectives. Crop load, leaf condition and the cultivar's normal development provide the context for assessing seaweed-derived support during seasonal change.

6 Quality and compatibility

Algal species and composition

Algal species, extract solids, organic composition and potassium reporting basis are relevant quality characteristics. Together they describe the material more clearly than a single total-extract percentage.

Liquid consistency

Appearance, dispersion, sediment behaviour and stability during storage inform the evaluation of a liquid seaweed material. Water chemistry and the other components of a nutrition programme also influence practical compatibility.

Crop stage, water supply and nutrient status provide the context for evaluating seaweed nutrition.

7 Product questions

Which seaweed is the basis of Selva?

The seaweed source is *Ascophyllum nodosum*. Extract composition also reflects the characteristics of the finished material, so sharing a seaweed name does not establish identical crop performance.

Does Selva replace the main fertiliser programme?

Selva's role centres on seaweed-derived organic fractions with a modest potassium contribution. Its nutrient contribution complements the existing programme; it is not a complete source of the crop's essential nutrients.

8 References and technical documents

Product specifications and application guidance are provided in the applicable technical data sheet and market label.

1. Santaniello et al. (2017), *Frontiers in Plant Science*
<https://doi.org/10.3389/fpls.2017.01362>
2. Shukla et al. (2019) - Seaweed composition and biological functions
<https://doi.org/10.3389/fpls.2019.00655>
3. Frioni et al. (2021) - Foliar and soil seaweed applications in grapevine
<https://doi.org/10.1016/j.scienta.2020.109807>
4. Salvi et al. (2020) - Grapevine physiology under low water availability
<https://doi.org/10.3390/app10134473>

Product information and technical support

Contact Huasheng