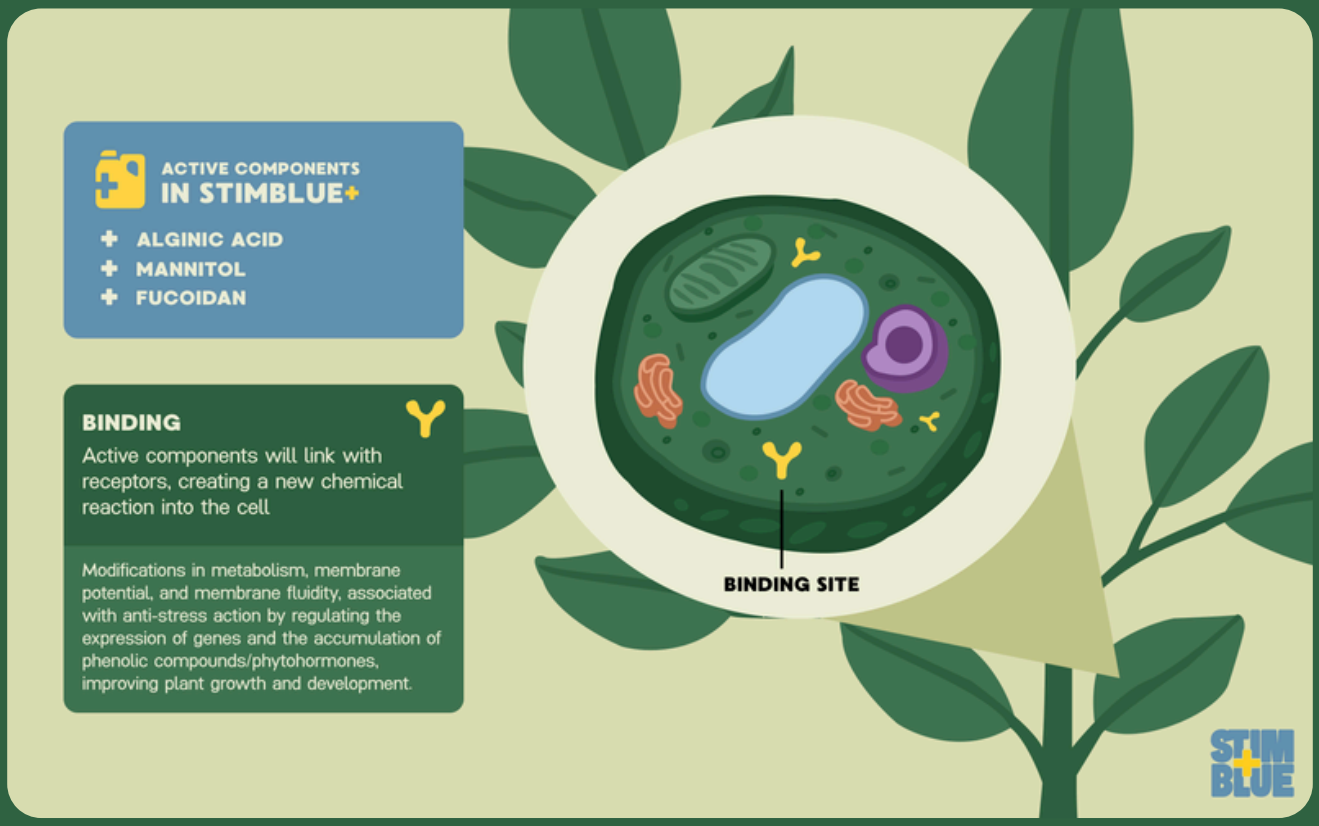

BOOSTING
POTATO
PERFORMANCE WITH
STIMBLUE+

# STIMBLUE+

**StimBlue+ is a biostimulant made from 100% cultivated Giant Kelp (*Macrocystis pyrifera*).**

Giant Kelp is known for its possession of high quantities of compounds with bioactive properties, fast growth, and CO2 absorption and retention capacity.[1] Seaweed and its extracts are valuable sustainable inputs in agriculture farming, promoting seed germination, plant growth, root development and stress tolerance in plants.[2]




StimBlue+ is suitable for use in Organic Agriculture conforming to the annexes of the European regulation EU 2018/848 and American Regulation NOP (National Organic Program) and is registered as per FPR 2019/1009, PFC 6(B) non-microbial plant biostimulant.

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# POTATO CULTIVATION IN EUROPE

Europe has a long history of potato cultivation, and the potato has become a staple in the European diet, with average consumption of 83 kg per capita per year.[3] Currently, about one quarter of global potato production originates from Europe (FAOSTAT average 2014-2024).[4] Within Europe, the top producers are Russia, Germany, France, Poland, Belarus, the Netherlands and the United Kingdom. Within the Netherlands and Belgium, potatoes account for 43% and 33% of the countries' total volumes, respectively.[4]

Potato cultivation in Europe typically uses relatively high amounts of nutrients, pesticides and water, due to its vulnerability to pests and diseases and relatively weak and shallow rooting system.[5] Irrigation is essential in dry, Mediterranean climates, whereas it's typically only applied in dry years in northern and Eastern Europe. In addition to challenges with water scarcity, growers are increasingly facing challenges with price fluctuations and rising input costs.

## STIMBLUE+ ON POTATO

StimBlue+ is a cultivated Macrocystis biostimulant proven to support a greener canopy and produce bigger and heavier potatoes at harvest, boosting growers' economic returns at the farm gate.

Continue reading to learn how StimBlue+ supports potato cultivation.

# FIELD TRIAL SUMMARY

As of 2025, StimBlue+ has been trialed in the Netherlands, the United Kingdom and Spain. All trials assessed StimBlue+ in the context of standard cultivation practices in each country and at an application rate of 2 L/ha, three times per season. The trial in Spain was a special trial evaluating the crop development after first soaking tubers at planting.

| COUNTRY | AREA HARVESTED (HA) | PRODUCTION (TONNES) |
|---|---|---|
| NETHERLANDS | 152,670 | 6.3M |
| UNITED KINGDOM | 118,407 | 5.5M |
| SPAIN | 60,800 | 1.8M |

Source: FAO STAT (2024)

Potatoes at harvest - open field trial in the Netherlands (2025).

# SUGGESTED APPLICATION

For optimal results: apply 3 applications of StimBlue+ at 2 L/ha.
Optional: spray at planting or soak tubers before planting.

### + FIRST APPLICATION
Apply as a foliar spray when first basal shoots are visible | BBCH21

### + SECOND APPLICATION
Apply as a foliar spray at tuber formation | BBCH40

### + THIRD APPLICATION
Apply as a foliar spray at inflorescence | BBCH55-60

*This approach ensures the plants receive support at critical growth stages. For foliar applications, it is recommended to spray in the morning or late in the day during non-sunny or humid weather.

# RESULTS EXPLAINED

kelp blue

STIM+BLUE

# ABOUT THE TRIAL

TRIAL CONDUCTED BY
SynTech Research

## LOCATION OF TRIALS

**SPAIN**
Alicante

## SEASON

**OCT - DEC 2025**

## SOIL TYPE

Clayey Sand

## VARIETY

Spunta

## CLIMATE

Temperate – dry summer, hot

## TRIAL TYPE

Young development

**+11%**

more tubers vs Ecklonia-based competitor

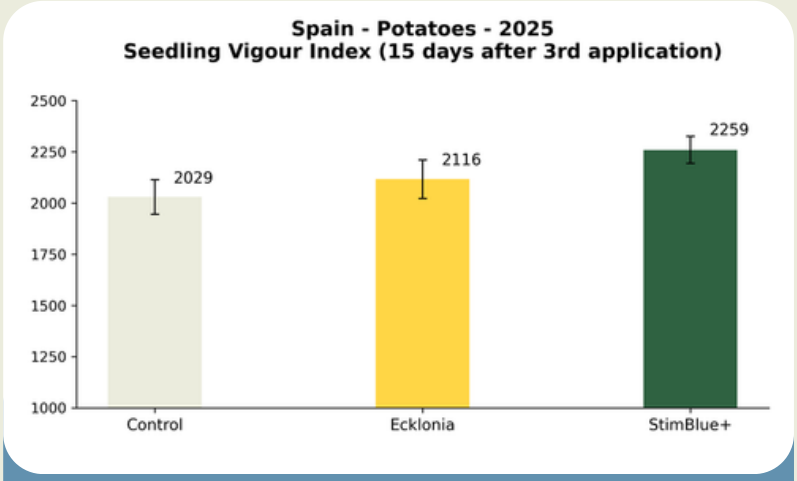
**+33%**

increase in plants emerged 11 days after the 1st application

# HIGHER SEEDLING VIGOUR

- In this trial, tubers were first soaked in 4% biostimulant solution for 10 hours before planting, followed by 2 foliar applications at a rate of 2 L/ha.

- Fifteen days after the third application, potatoes treated with StimBlue+ showed significant increases in seedling vigour, an important indicator of early growth performance. Compared to the control and the Ecklonia-based competitor, StimBlue+ boosted both average seedling length by 11% and Seedling Vigour Index by 7%.

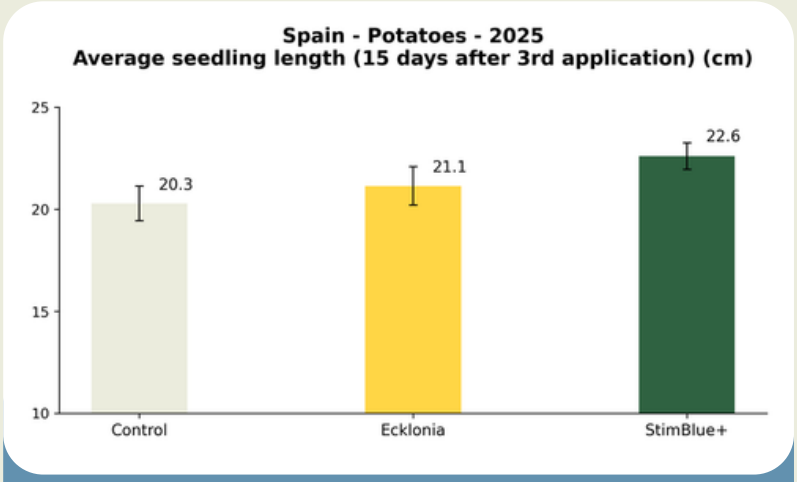



Seedling Vigour Index is calculated by multiplying the percentage of tubers successfully producing emerged plants by the seedling length (cm).

**+7%**

increased Seedling Vigour Index (SVI)

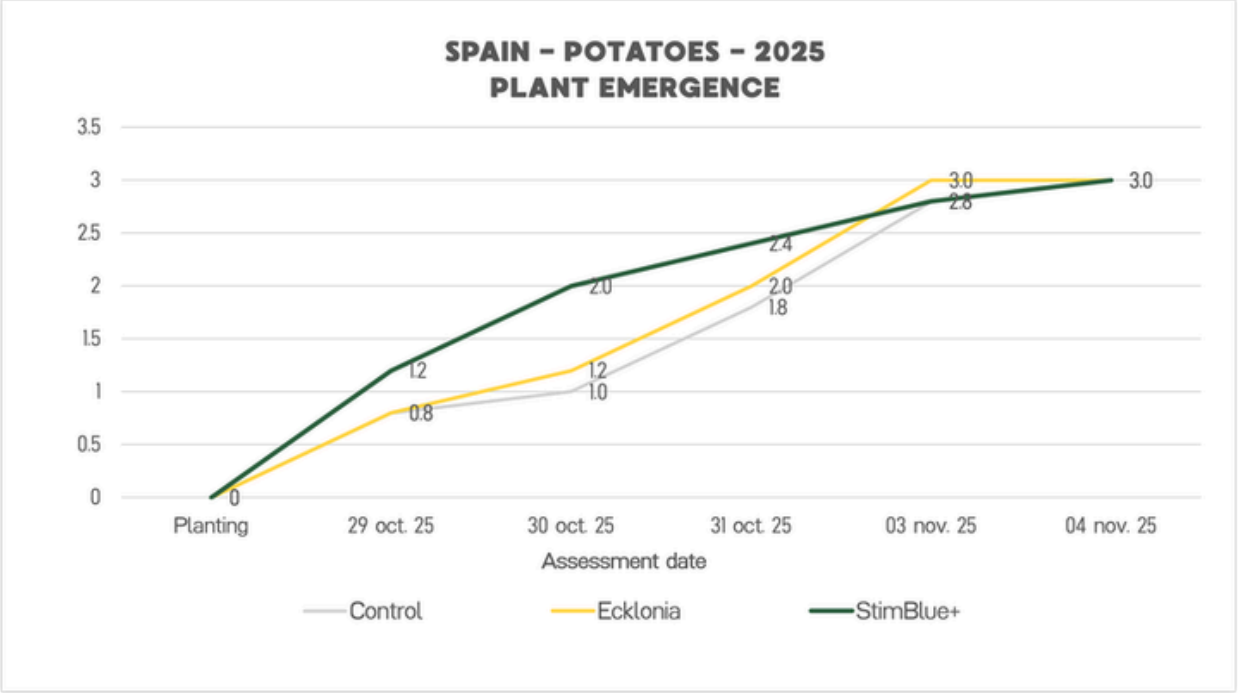
A higher SVI typically indicates better early growth performance, superior early vigour and longer, more vigorous seedlings.




Potatoes treated with StimBlue+ showed +11% greater average seedling length 15 days after the third application (cm).

# FASTER PLANT EMERGENCE

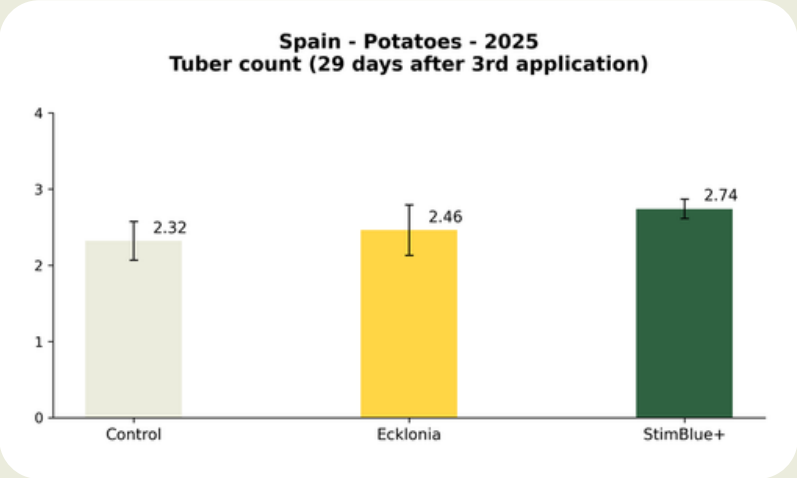
- Early plant emergence is critical for the potato crop as it extends the growing season, increasing the chances of higher yields. Not only can earlier plant emergence lead to larger, more uniform tubers, but it also allows potatoes to set before high-temperature periods or potato blight outbreaks that may occur later in the season.




- Potatoes treated with StimBlue+ significantly increased earlier plant emergence compared to the control and the Ecklonia-based competitor. A 33% increase in emerged plants was witnessed 11 days after the 1st application vs control.

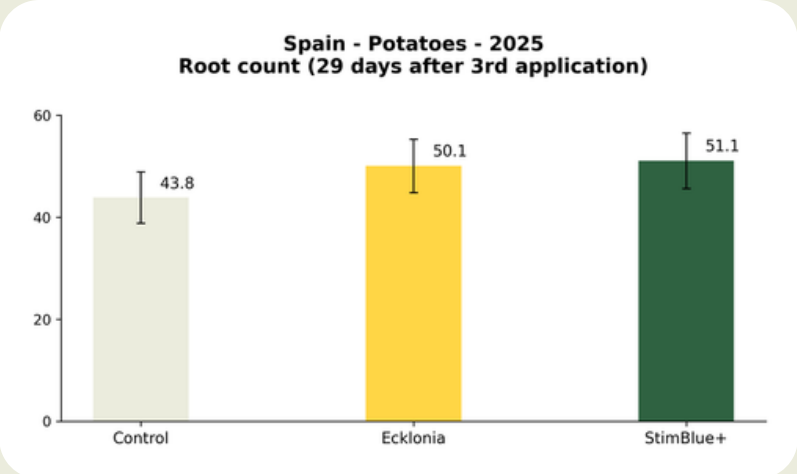
# ABOVE & BELOW-GROUND BIOMASS

✚ Improved seedling length and vigour, as well as earlier plant emergence, proved to increase the above- and below-ground biomass of potatoes treated with StimBlue+. Not only did the tuber fresh and dry weight increase compared to the control, but so did the total count of roots and tubers. These gains translate to higher yield potential and increased economic returns for potato growers.




✚

29 days after the third application, potatoes treated with StimBlue+ showed more tubers and more roots compared to other treatments.




**+18%**
increase in tubers vs control

**+17%**
increase in roots vs control

# ABOUT THE TRIAL

TRIAL CONDUCTED BY

Richard Austin agriculture ltd

## LOCATION OF TRIALS

**UNITED KINGDOM**

Lincolnshire

## SEASON

**APR – SEP 2025**

## SOIL TYPE

Silt Loam

## VARIETY

Melody

## CLIMATE

Temperate - no dry season, warm

## TRIAL TYPE

Efficacy in standard conditions

**+$1,030**

increased economic returns per hectare

**+13%**

greater yields

# INCREASED CROP PERFORMANCE

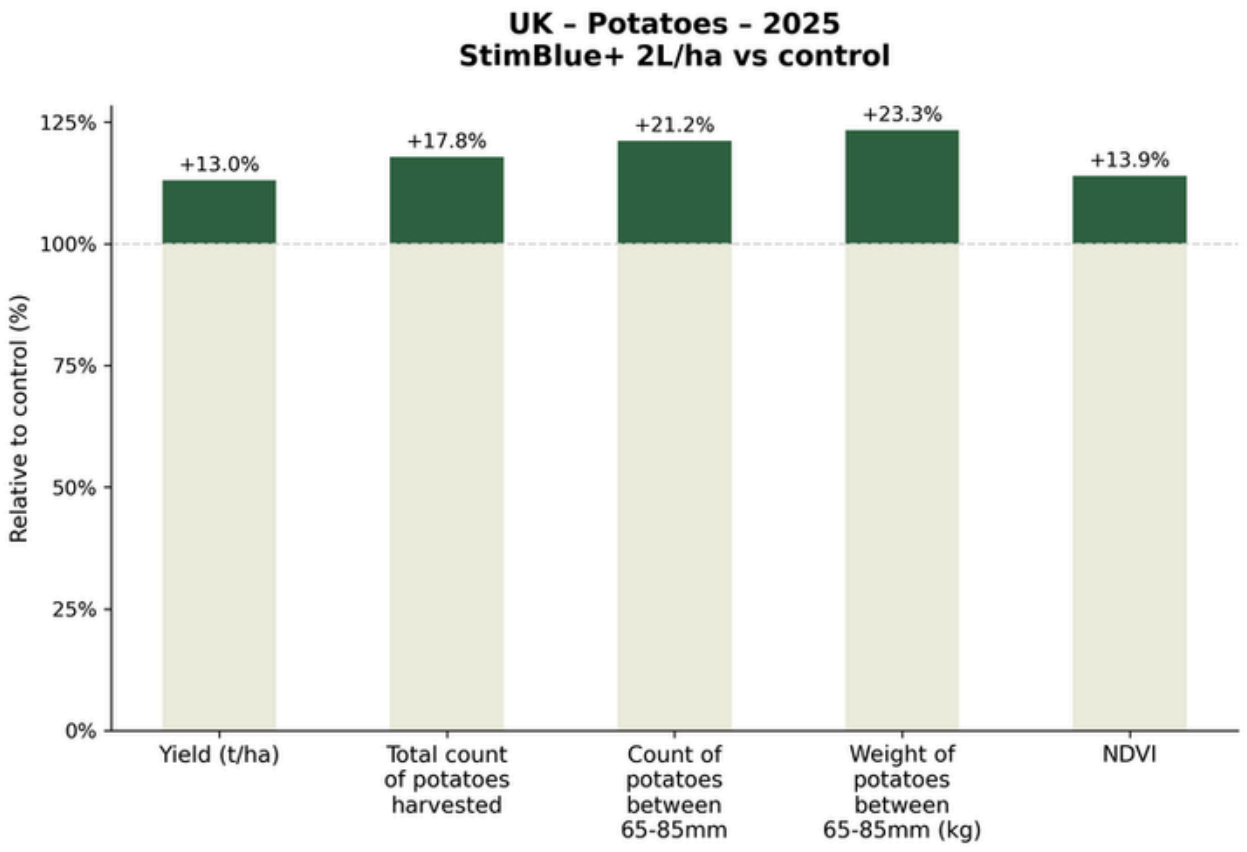
StimBlue+ significantly increased yield and the number and weight of potatoes harvested. These gains were most impressive within the category of 65-85 millimeters, which is considered above average in the industry, supporting higher returns at the farm gate.

**+13%** greater yields

**+20%**
potatoes between 65-85mm

**+13%**
greener canopy (NDVI)

- Plots treated with StimBlue+ also showed a +13% increase in NDVI (Normalized Difference Vegetation Index), which assesses canopy greenness. These results signal increased photosynthetic activity, which supports increased crop performance.




Current calculations indicate that a 13% increase in yield contributes to $1,030 increased economic returns at the farm gate (based on a typical farm gate price of $245 in the U.K. in 2025.[6]

# ABOUT THE TRIAL

TRIAL CONDUCTED BY

Praktijk Centrum Voor Precisie Landbouw

VDBORNE FIELD TRIALS

## LOCATION OF TRIALS

**NETHERLANDS & BELGIUM**

## SEASON

**APR – OCT 2025**

## SOIL TYPE

Sandy clay

## VARIETY

Fontane size 35/34

## CLIMATE

Temperate - no dry season, warm

## TRIAL TYPE

Efficacy in standard conditions (fertilised field)

**+$555**

increased economic returns per hectare

**+4%**

greater yields

# GREENER CANOPY

Mid-way through the season, the treatment zone that was sprayed with StimBlue+ was visibly more green compared to the standard zone. A greener canopy can signal increased photosynthetic activity, which has positive impacts on the crops' assimilation of sugars (energy). Increased rates of photosynthesis therefore support increased crop performance, such as yield.


**LEGEND:**

- WHITE ZONE = STANDARD PRACTICE (FERTILISER)
- GREEN ZONE = STIMBLUE+ (2L/HA, THREE APPLICATIONS)

"We applied StimBlue+ twice on our potato field in June. In a drone shot, we can see changes in greenness in the treatment zone (where StimBlue+ was applied). This part of the field looked greener compared to the standard plot, where we didn't apply it."

**DIETER BERGEZ (PCPL)**

# HIGHER YIELDS

**+4%**
greater yields

At harvest, the zone sprayed with StimBlue+ yielded +4% more potatoes vs the standard zone, generating +$555* increased economic returns for the grower.

**+9%**
increase in potatoes larger than 50 mm

The zone sprayed with StimBlue+ also showed larger and more uniform potatoes. VD Borne shared that bigger/longer potatoes enable bigger/longer fries, for example, and improve factory efficiency. 50 mm is considered industry average.


Samples from both treatments were displayed at harvest (11 Oct 2025). Left: Standard, Right: StimBlue+.

*Economic returns were calculated based on a typical farm-gate price of $220 per tonne in the Netherlands in 2025.[7]

# HIGHER YIELD, MORE $

| COUNTRY | YIELD | ECONOMIC RETURNS/HA |
|---|---|---|
| NETHERLANDS | +4% | +$555 |
| UNITED KINGDOM | +13% | +$1,030 |

*Yield: Average % yield increase per hectare across all trials at a dosage of 2 L/ha.
*Economic returns/ha: Average increase in economic returns per hectare in USD across all trials at a dosage of 2 L/ha.

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# ABOUT
## STIMBLUE+

**StimBlue+** is a biostimulant made from 100% cultivated Giant Kelp (Macrocystis pyrifera), has shown to be a great solution for potato cultivation. The trial data suggests that it offers measurable, significant economic benefits, with greater yield and bigger potatoes.

We plant kelp forests around the globe to boost the health and biodiversity of the oceans while locking away CO2, and producing products to offer sustainable alternatives to help transition agriculture to more sustainable practices.


### FIND MORE INFORMATION

www.kelp.blue/global/field-trial/potatoes


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