Our company

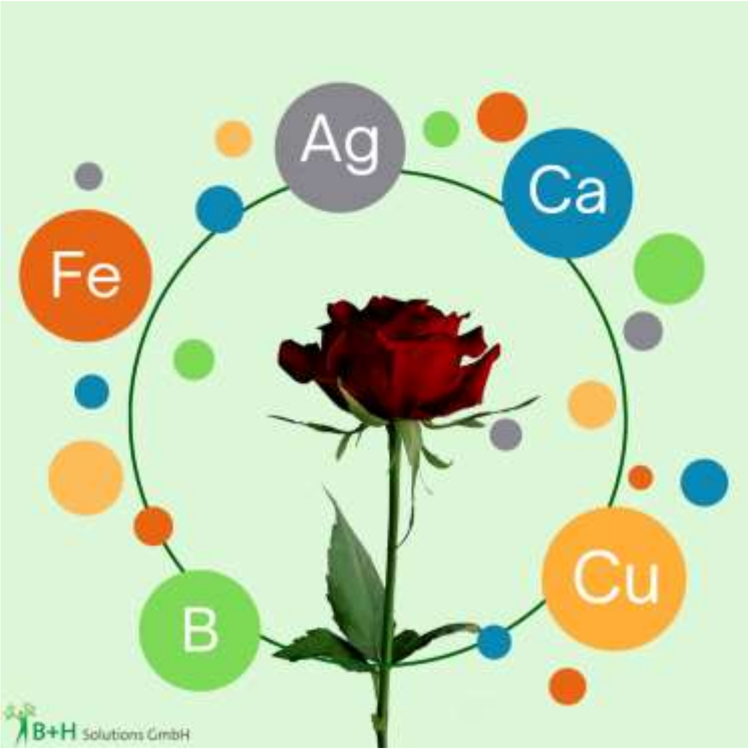
B+H Solutions GmbH develops and produces innovative products for sustainable agriculture using **nanotechnology**.

We focus on residue-free production.

Our products are a **revolution in agriculture** for more than a decade.

New technologies in agriculture
- environmentally friendly.

MADE IN
GERMANY



Our products

B+H Solutions GmbH

AgroArgentum®

Unique and ecological solution based on the power of **Silver**

The best liquid **Iron** fertilizer

AgroFerrum®

The first fertilizer with elementary **Copper**

AgroCyprum®

registered as EC fertilizers under Regulations (EC) 2003/2003 and (EU) 1009/2019

Calcium, Magnesium and Silicon from naturally degraded rock

AgroCalcium®

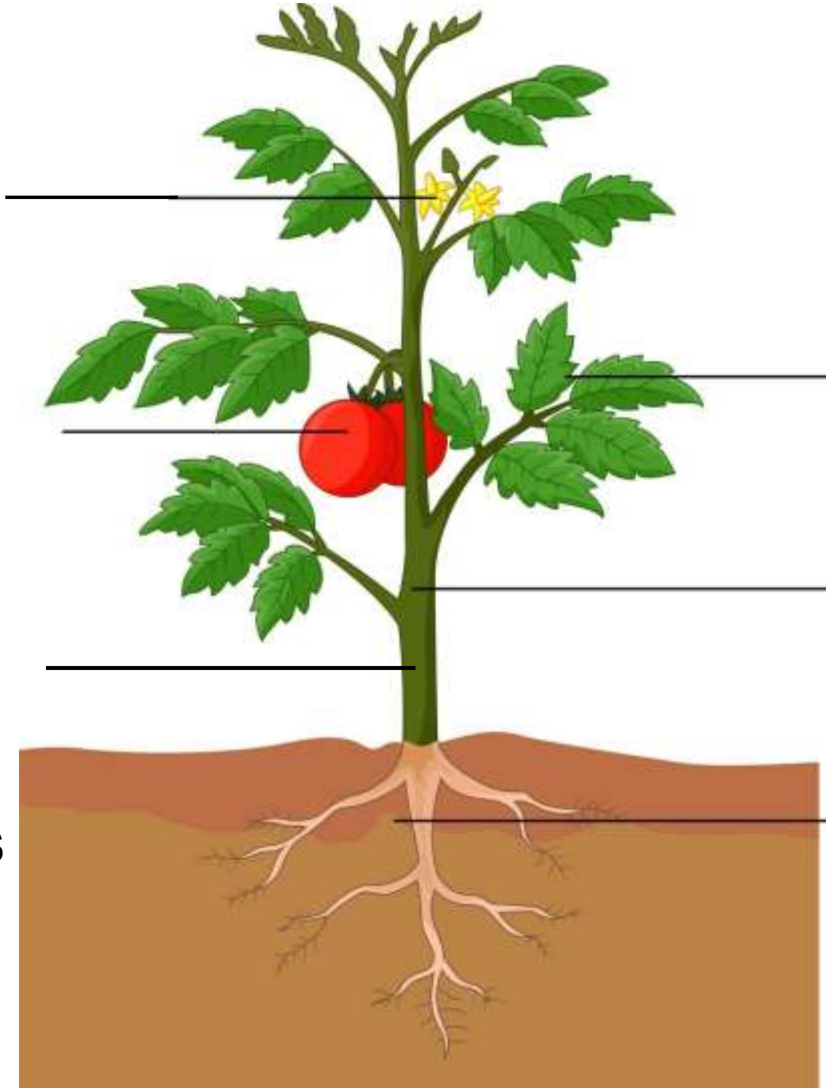
Advantages of our system

B+H Solutions GmbH

Improved flower formation:
up to 10 % more flowers

Higher brix, fruit mass and dry matter:
More fruit, homogeneous and of better quality.

Plant tolerance:
Promotes the formation of **phytoalexins** that helps the plant to react quickly under biotic stress

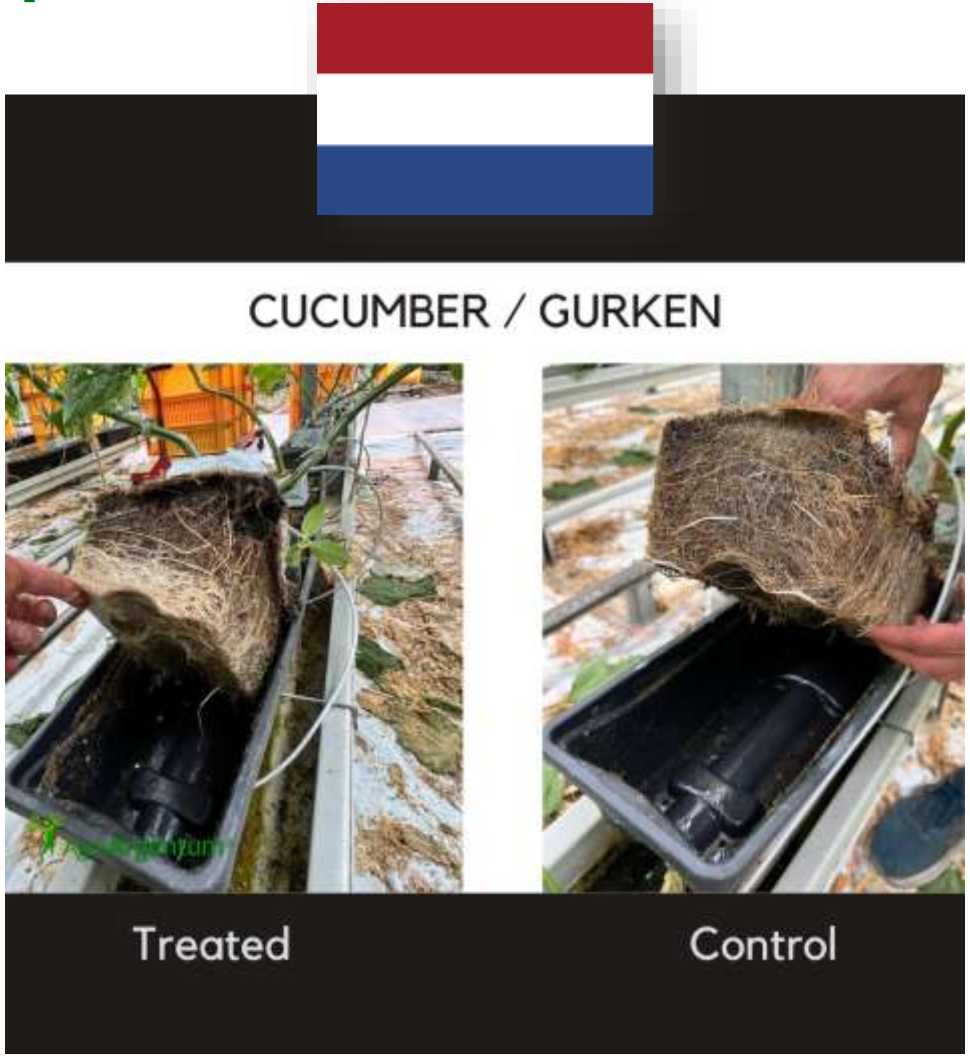


Improved photosynthesis:
More energetic plants with higher carbohydrate production: greater and earlier harvest.

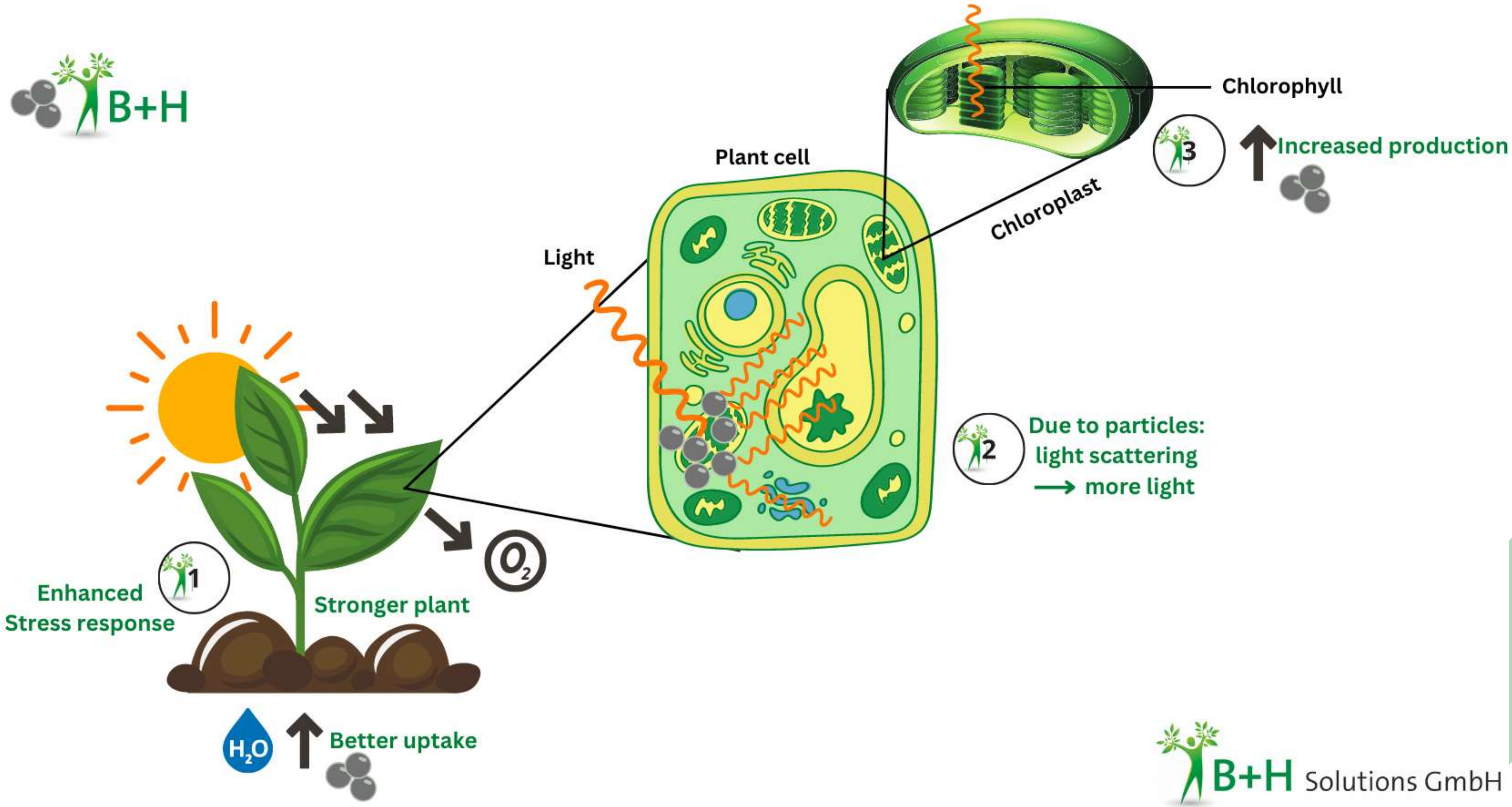
More and shorter internodes:
more flowers and fruits

Root development stimulation:
maximum development of roots with better quality, length and thickness .

Root development stimulation

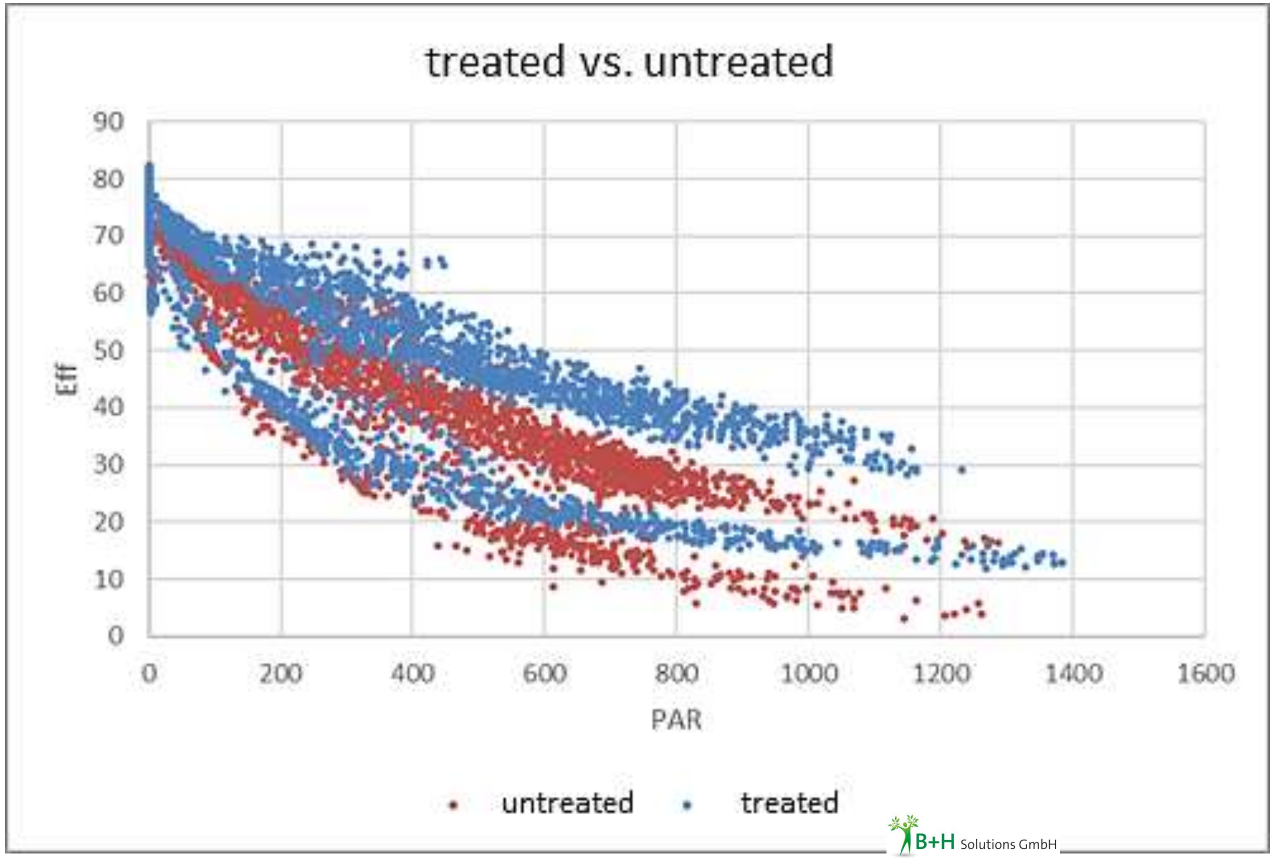


Effect on photosynthesis



How to measure increased photosynthesis?

Gerbera: Photosynthesis Efficiency versus PAR

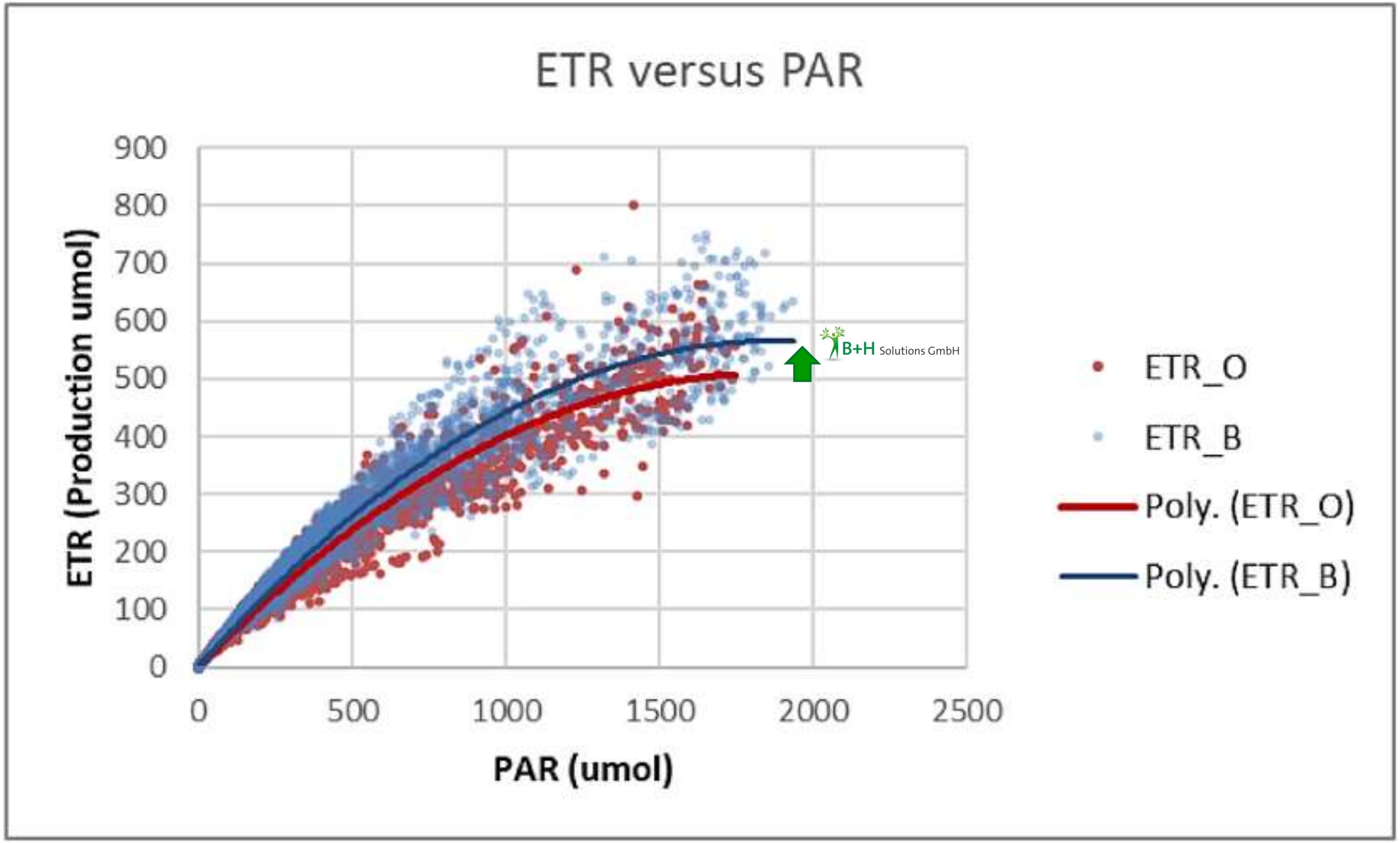


Y-axis:
Photosynthetic Efficiency in %
(Light emitted : Light Uptake/Conversion)

X-axis:
Photosynthetically Active Radiation
PAR in µmol

- Significant difference between treated and untreated Gerbera crops.
- Nearly all photosynthesis efficiencies measured at the same light level of untreated crops show lower photosynthesis efficiency, thus lower production.

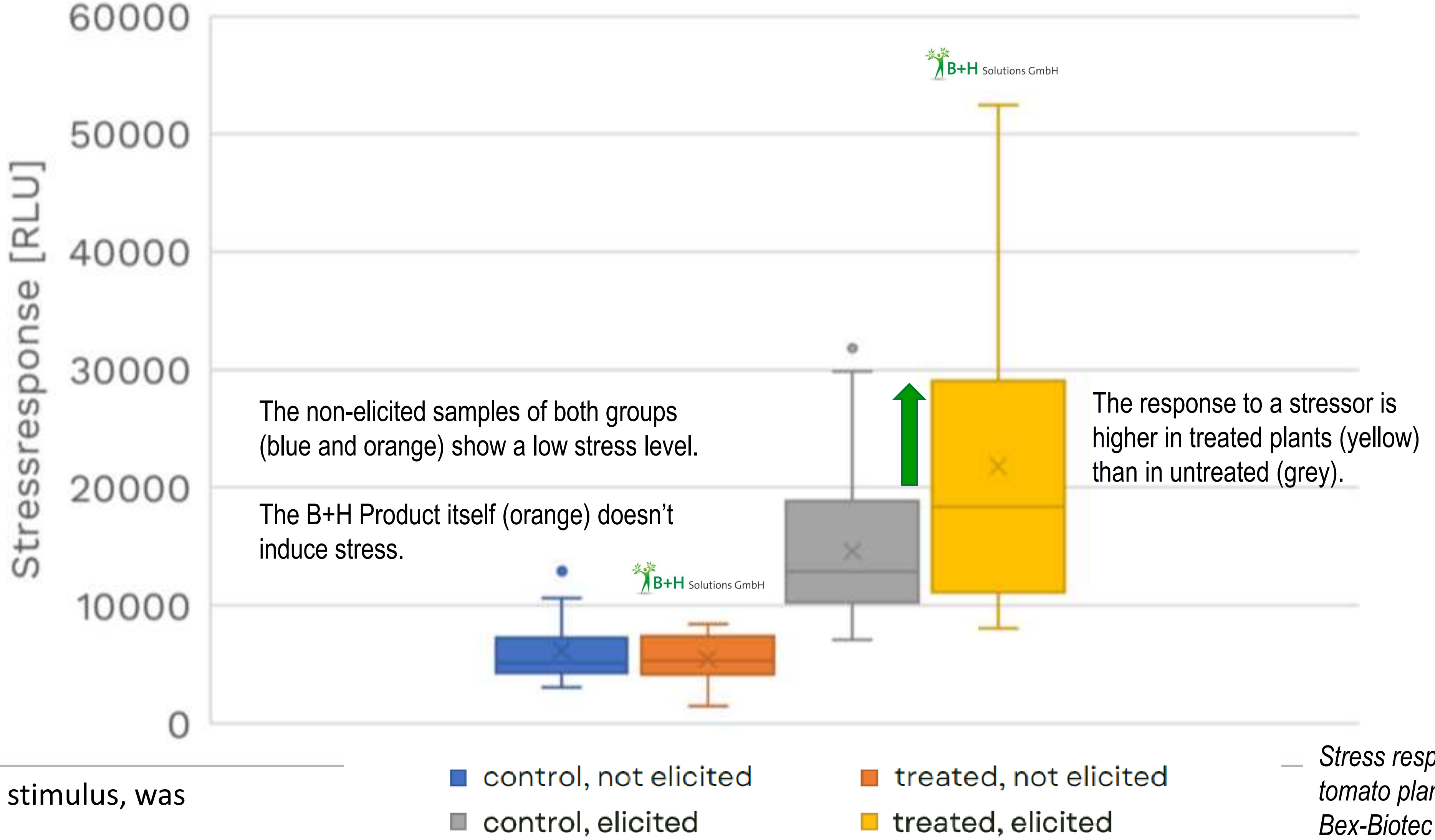
Increased Photosynthesis



- ETR_B is treated
  ETR_O is control
- Increase in photosynthetic activity is very obvious using the fit-curves (Poly..)
- The plant's response to this additional photosynthesis is:
  - Faster growth
  - Greater biomass
  - Larger flowers
  - More flowering

Enhanced stress response

RLU:
Relative
Luminiscence
Unit



Stressor:
An oxidative stress stimulus, was given. (= elicited)

Stress response of treated tomato plants. Source: Bex-Biotec GmbH & Co.KG

What does a less stressed plant look like?

Kalanchoe

Begonia

Treated plant vs. Control plant

Results Field Trial 2024

B+H Solutions GmbH

ICAR-INDIAN INSTITUTE OF HORTICULTURAL RESEARCH, HESARAGHATTA, BENGALURU

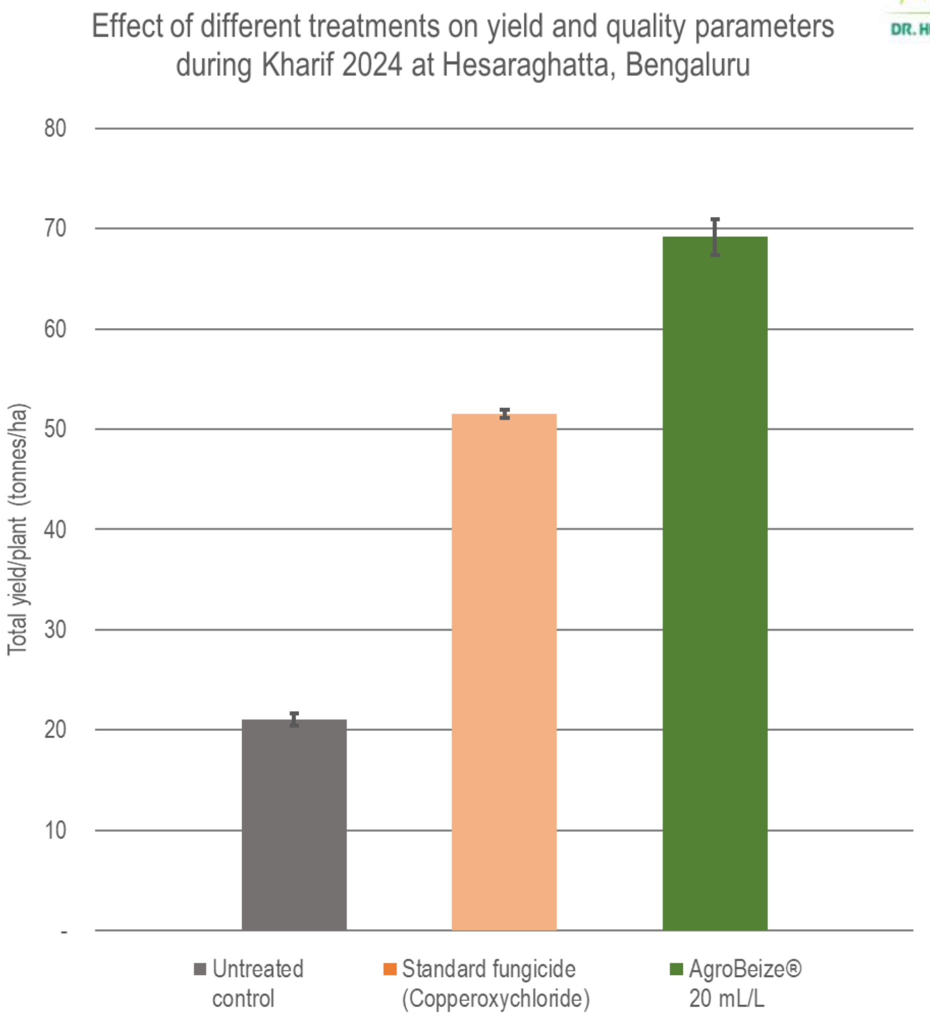
HAS

DR. HEINISCH AGRO SOLUTIONS

- Independent Study by
- Dr Sandeep Kumar GM, Division of Crop Protection
  ICAR-Indian Institute of Horticultural Research, Bangalore
- EVALUATION OF BIOEFFICACY AND PHYTOTOXICITY OF AGROBEIZE ON TOMATO CROP DISEASES
- AgroBeize® is a mixture of 500 ppm AgroArgentum and 150 ppm AgroCyprum
- Conclusion: It is evident from the present investigation that AgroBeize preventive and curative foliar sprays@ 20 mL/L was effective against late blight, early blight and bacterial fruit spot management in tomato along with good marketable yield during Kharif 2024 evaluation at ICAR-Indian Institute of Horticultural Research, Hesaraghatta, Bengaluru. The tested chemical had no phytotoxic effect on tomato crop.

Results Field Trial 2024 Yield and Phytotox

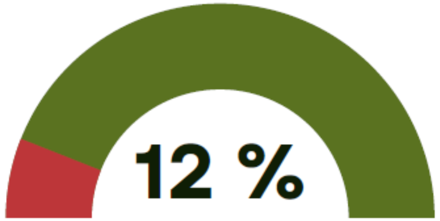
- The results on yield of tomato under different fungicide interventions are presented. Significantly highest yield was recorded in treatment with AgroBeize® spray at 20 mL/L Water.
- AgroBeize® was evaluated at 10, 50 and 100 mL/L for phytotoxicity on tomato under field conditions during Kharif 2024.
    - No phytotoxic effects were observed on tomato plants.
    - Plants were apparently healthy and free of phytotoxic symptoms viz., yellowing, stunting, necrosis, epinasty and hyponasty



Enhanced stress response

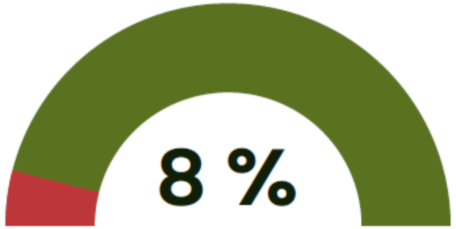
SIGNIFICANT INCREASE IN PRODUCT QUALITY

Statistical analysis of laboratory resulted in the following results:



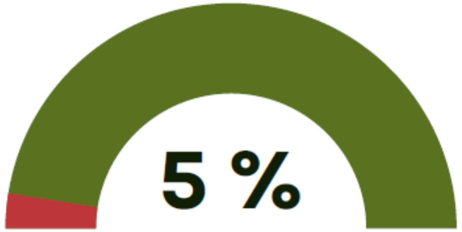
BIGGER FRUITS

The tomatoes in the treated group demonstrated an increase in weight of 12% compared to untreated control.



MORE SUGAR (BRIX)

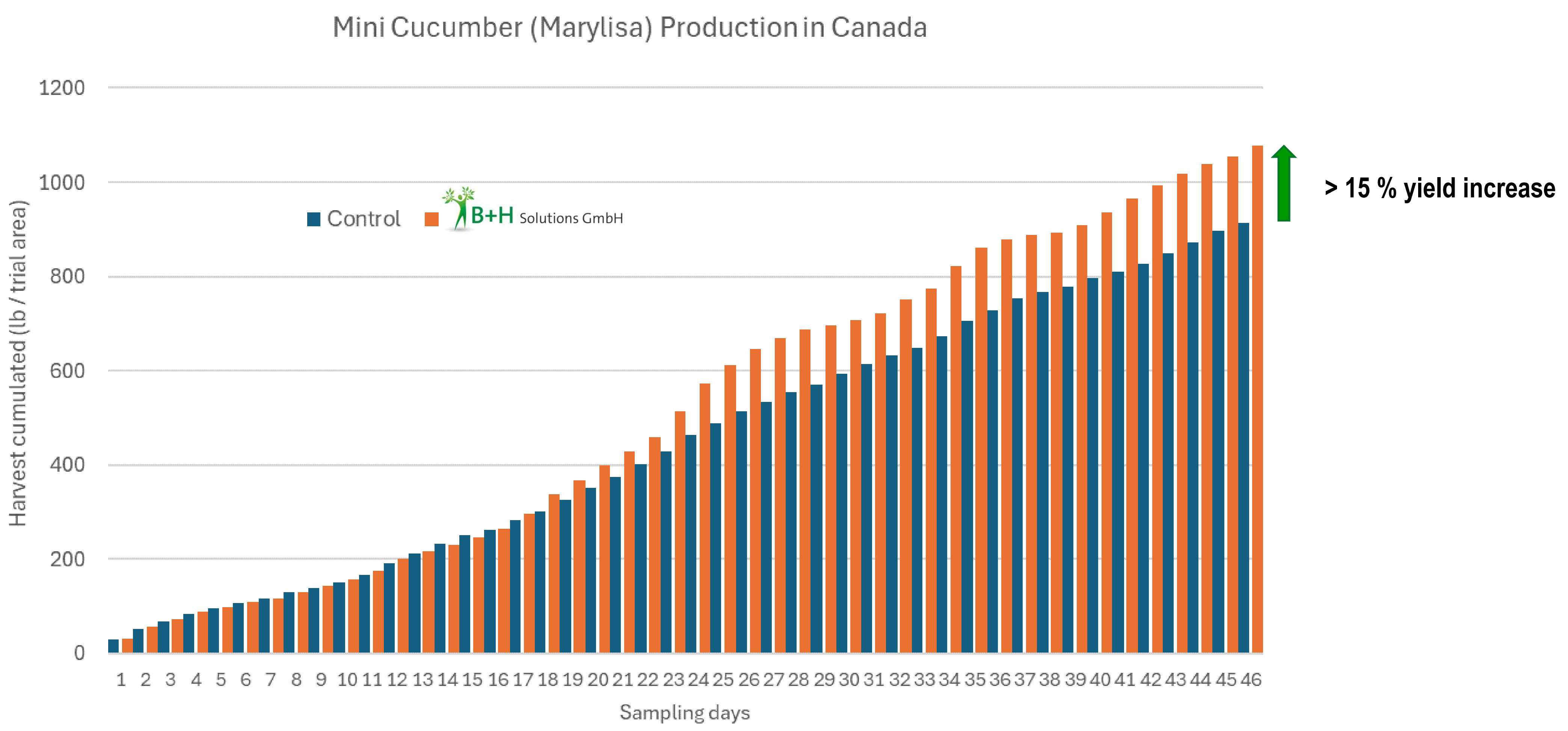
The tomatoes in the treated group showed an increase in 8% more Brix content compared to untreated control.



INCREASE IN RIPENING

Tomatoes of treated group were about 5% more mature than the ones in the control group based on analysis and color.

Greenhouse Cucumber



Roses – results of field trial

untreated
plant control

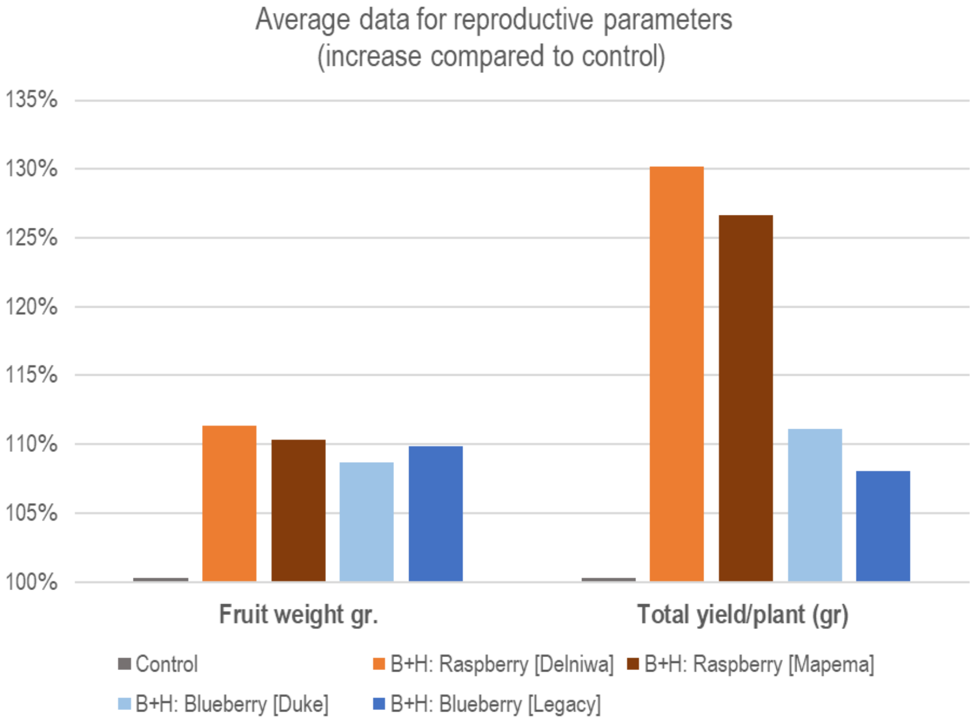
treated weekly with
B+H products

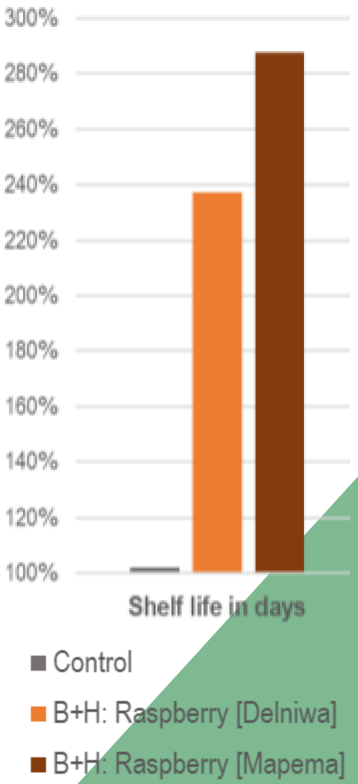
Raspberries – results of field trial

B+H Solutions GmbH

untreated
plant control

Plants treated 8x / yr
with B+H Concept





Service:
- we provide customized protocols e.g.:

B+H Solutions GmbH

Application Protocol for Tomato, Pepper and Cucumber

Products used

Product name	Description	Registration
AgroArgentum® Bor (AAB)	Liquid EC Fertilizer 2% Boron, 1% Silver	Regulation EG 2003/2003 and EU 2019/1009
AgroCyprum® (ACY)	Liquid EC Fertilizer 3% Copper	Regulation EG 2003/2003 and EU 2019/1009
AgroCalcium® (ACA)	Liquid EC Fertilizer 20% Calcium, 1,5 % Magnesium, 3 % Silicium	Regulation EG 2003/2003 and EU 2019/1009
AgroFerrum® (AFE)	Liquid EC Fertilizer 15% Iron	Regulation EG 2003/2003 and EU 2019/1009

Important

- **Do not mix with Sulphur/Sulphates. This includes Bio-Sulphur products as well.**
- **Never use any Hydrogen peroxide.** (No need to use, as Silver/Copper are taking over the function of H_2O_2)

Tomato/Pepper/Cucumber (standard treatment)

Type, time and frequency of application	Relation	AAB	ACY	AFE	ACA
Possible applications: 1. Via irrigation once per week (inject via Dosatron, extra C-Tank, or similar) 2. Via irrigation distributed over the week (refill on the same weekday each) – e.g. in the A-Tank (not in the same tank with Sulphur/Sulphates) 3. Foliar spray 4. Pulsed fog or similar fogging device	Per hectare and week	150 mL	50 mL	---	---
Once a week with separate injection/dosatron or via foliar spray. If applied via Tank, assure sufficient stirring.	Per hectare and week	---	---	50 mL	1000 mL

Tomato/Pepper/Cucumber (intensified treatment)

Type, time and frequency of application	Relation	AAB	ACY	AFE	ACA
Apply as described in standard treatment. Double dosage of AAB for minimum 3 weeks or increase to maximum dosages →	Per hectare and week	600 mL	50 mL	---	---

Our vision

B+H Solutions GmbH shall provide smart solutions to the problems faced by the agricultural sector today

The solutions we provide shall demonstrate a great range of innovative ecology and bring the maximum level of economic success to the farmers

Take home message

B+H Solutions GmbH

- B+H Solutions GmbH develops and produces innovative trace element fertilizers for professional horticulture using Nanotechnology
- The backbone of the concept:
  - Colloidal Silver and Copper
  - Metallic particles more sustainable than chelates or salts

→Reduced stress
  - Less abortion of flowers or fruits > higher yield
  - Stronger leaves and stems
  - Much better plant condition overall

→Increased photosynthesis efficiency
  - Faster growth, more flowering
  - Higher yield and less waste, reduction of chemicals
  - More dry matter in the fruit, better taste and longer shelf life

→ Plant gets resilient against bacteria, viruses and fungi

- Sendot System: online evaluation of photosynthesis performance in your living plants

Thank you very much for your attention!

B+H Solutions GmbH

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