Steric P

GRANULAR

Steric® P with BioSF325 Technology

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Contents

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BioSF325 Technology

- The patented technology contains 4 key components which drive nutrient use efficiency allowing for more phosphorus and potassium to be utilised by the plant and stay available for longer periods

- These 4 components do not just work in isolation, they are synergistic in their effect within the plant

- Improved nutrient use efficiency of phosphorus and potassium delivers proven increase in root and vegetative growth along with fruit/seed quality

BioSF325 Technology - 4 Key Components

A direct effect on the plant by uprating photosynthesis and nitrogen use efficiency

4. Photosynthesis

3x more efficient

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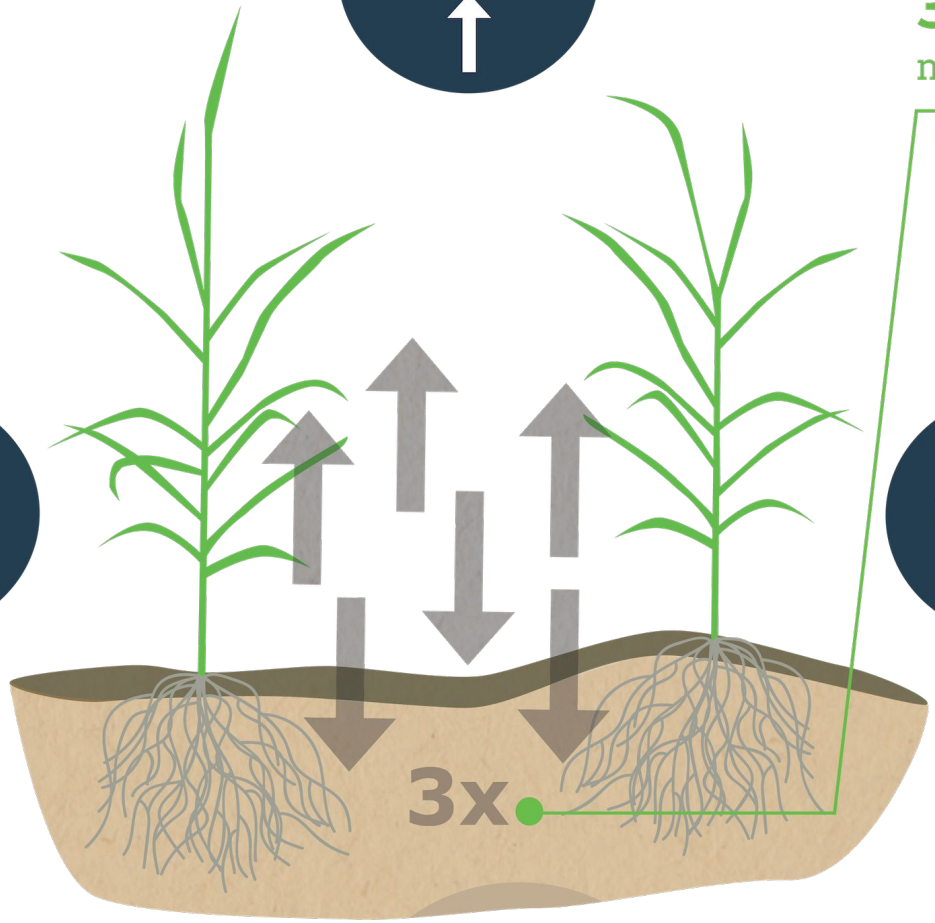
3. Vegetative Growth

A chelating effect on key micronutrients - iron, zinc, manganese and copper and aids vegetative growth



2. Absorb Potassium

Actively improves the plant's ability to absorb potassium and assists in the production of chlorophyll and carbohydrates

1: Phosphorus

Works inside the plant to improve efficiency of uptake of phosphorus which aids stronger root and shoot growth

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BioSF325 Technology - Summary

- BioSF325 sits inside the 100% water soluble Steric P dry formulation
- Enables Steric P to be a replacement for traditional forms of P - MAP, phosphoric acid, DAP, MKP
- Instead of full replacement BioSF325 enables Steric P to be used as a biostimulant within standard fertigation programs
- Helps to reduce the effect of salinity on root and shoot growth
- Through improved P efficiency, helps reduce environmental impact of phosphate

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Environmental Impact of Phosphate

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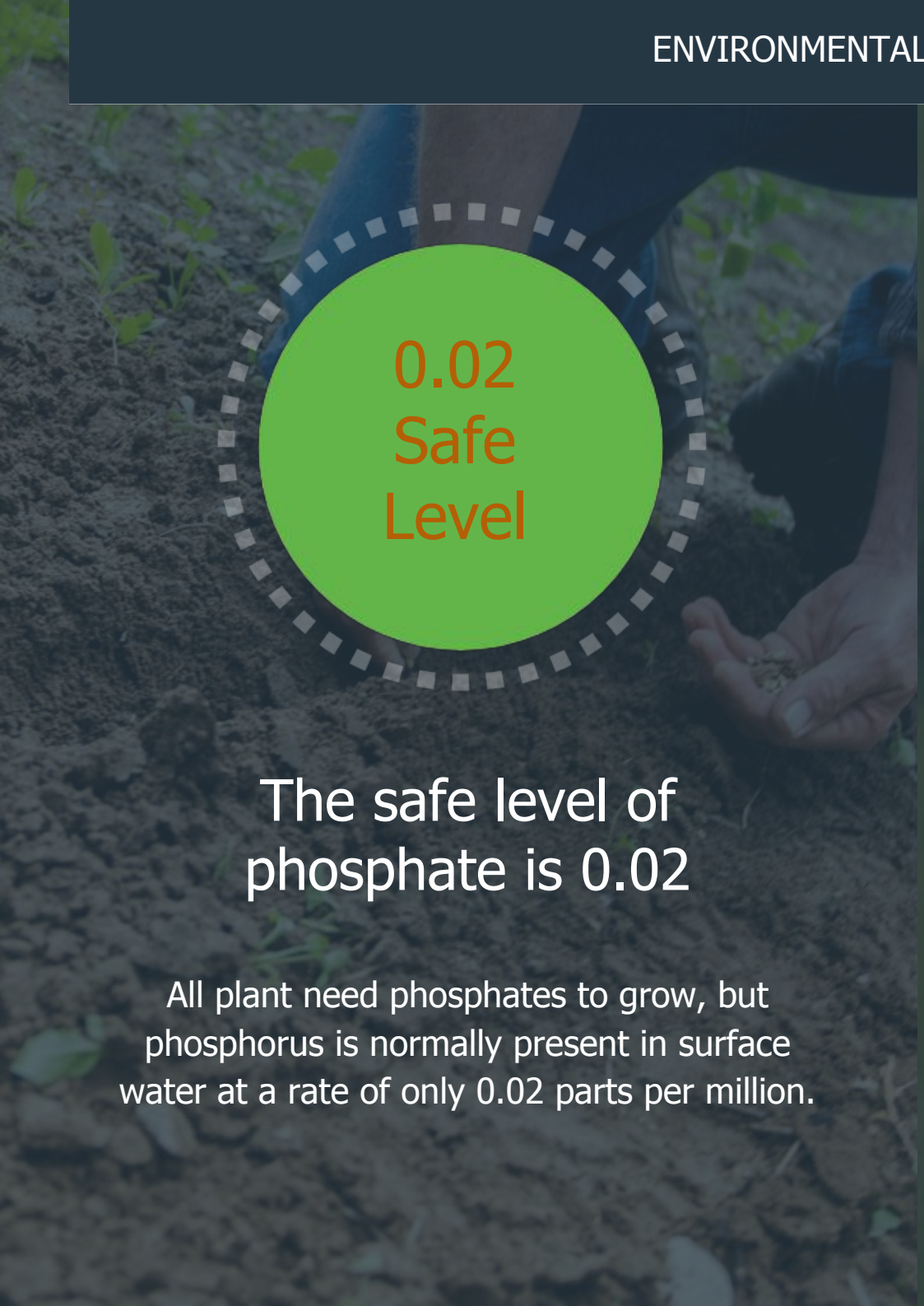
ENVIRONMENTAL IMPACT OF PHOSPHATE



The safe level of phosphate is 0.02

All plant need phosphates to grow, but phosphorus is normally present in surface water at a rate of only 0.02 parts per million.

x3 the safe level will create an algae bloom

The increased bacterial levels which use up oxygen in water kill all life and contaminate the water source which leads to serious clean up costs to remove the algae.

ENVIRONMENTAL IMPACT OF PHOSPHATE

Up to 40% of nutrients applied are unavailable and thus useless to the crop

In particular the over use of P fertilisers can alter the composition and function of soil microbials which reduces crop yields and soil health

Steric P can improve phosphorus levels within the plant by up to 37% helping to boost yield and quality

Excessive use of phosphate in agriculture remains main source of the problem compared to other industries

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Features

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EC-FERTILISER (B.1.2)

- Blended NP 12:58 water soluble dry formulation
- Phosphorus is derived from 100% water soluble high efficiency food grade mono-ammonium phosphate

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Total Nitrogen (N) 12%

Phosphorus (P_2O_5) 58%

EC-FERTILISER (B.1.2)

100%

100% water soluble dry formulation

High efficiency food grade MAP as source of P_2O_5

P_2O_5

12:58:0

Formulation containing 12:58:0, compliant with the EC-fertiliser Directive 2003

Low levels of phosphite in food grade MAP guards against Maximum Residue Level (MRL) issues when exporting crop

MRL

EC-FERTILISER (B.1.2)

Bio SF325

BioSF325 improves nutrient use efficiency up to 67%

Low salt index of 62.4 and pH 4.43

CaNO3

Good mixing compatibility with CaNO3

Fewer applied elements and packaging

- Steric P fully replaces traditional P fertilisers
- Steric P has biostimulant action

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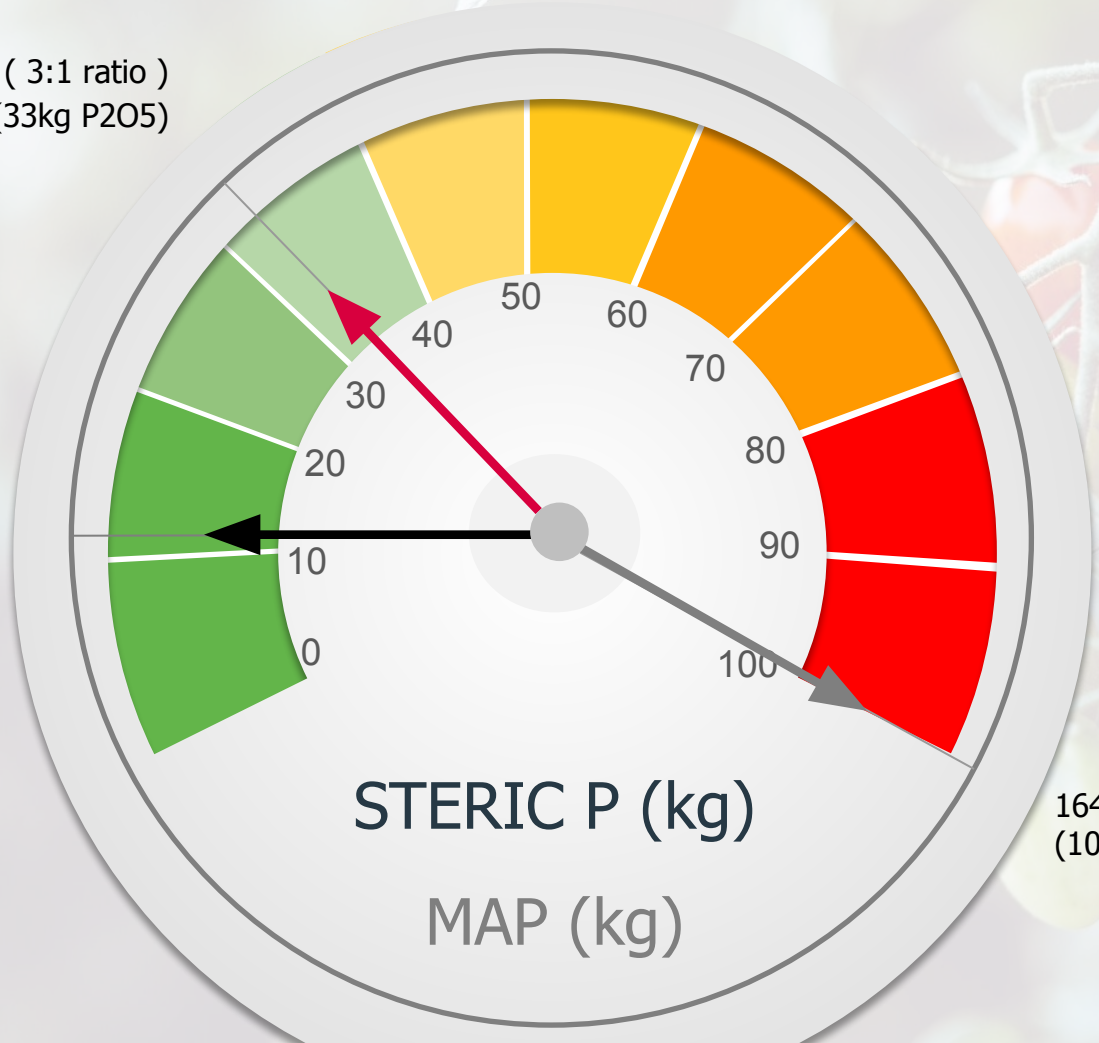
57kg (3:1 ratio)
(33kg P2O5)



2-11kg depending on crop and effect required

164
(100 kg P2O5)

Traditional Practice + **Steric P** as **biostimulant** - Steric P (kg)

Steric P - Steric P (kg)

Traditional Practice - MAP (kg)

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Trial results as replacement for acid fertilisers

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Watermelon - Variety Azabache

Steric P 1/3 P rate - 60 DAT

60 days after application plants are more developed

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APPLICATION RATE OF P

68% Decrease of P Applied Compared to FSP**

P applied* per week for 12 weeks

Steric P: 60 kg (35 units P)

FSP - MAP: 180 kg (110 units P)

+37%

Yield in tonnes*

Steric P: 68.90

FSP: 50.17

+28%

Cost*

Steric P: €276

FSP: €216

+55%

Gross Income*

Steric P: €25,228

FSP: €16,304e

+55%

Income*

Steric P: €24,952

FSP: €16,088

*Per Hectare

**Farm Standard Practice

Trial conducted by Masso, Spain

Tomato - Covered

Significant differences in bunch size and number of flowers at **52 days DAT**

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FERTILISER APPLIED

70% Decrease of Fertiliser Applied Compared to FSP

Fertiliser applied every 5 days

Steric P: 300 g (12:58:0)
FSP: 1 kg (12:62:0)

December - March
Across 2,000 Plants

+22.8%

Bunch Length (cm)
Steric P: 21.0
FSP: 17.1

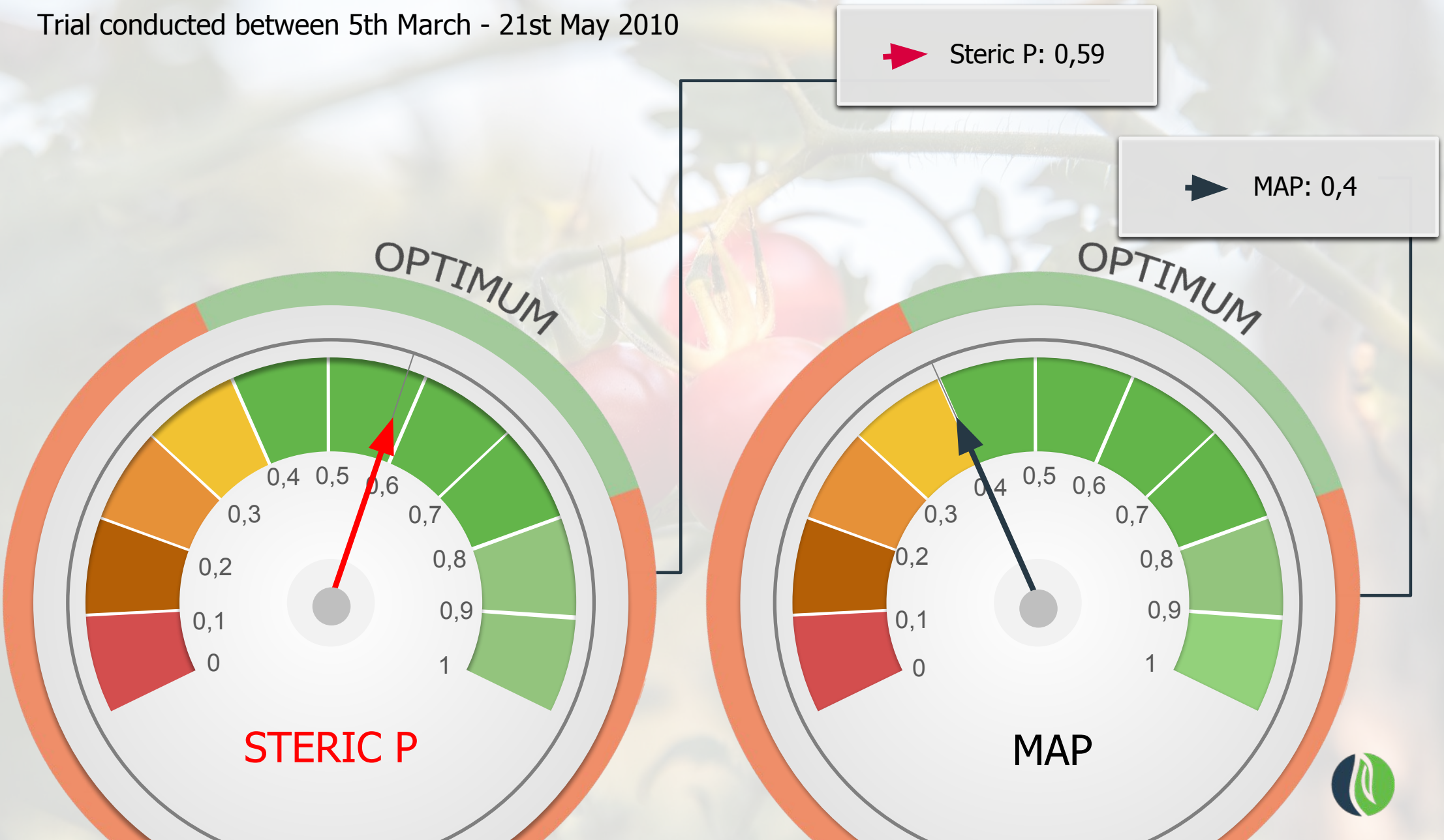
+37.5%

Leaf P Concentration %
Steric P: 0.55 (in optimum range)
FSP: 0.40 (below optimum)

Trial conducted by Masso, Spain

Leaf phosphorus concentration (%)

Trial conducted between 5th March - 21st May 2010



Strawberry - Covered

Trial Conducted by
Masso, Spain

Steric P

FERTILISER APPLIED

64% Decrease of Units of P Applied Compared to FSP

Fertiliser units of P applied	Steric P: 17.94 FSP: 49.53

+21%

Cumulative Harvested Grams per plant

Steric P: 177.10

FSP: 146.22

December - March
Across 1,236 Plants

Trial conducted by Masso, Spain

Artichoke - Improving yield & quality

Steric P produces a higher number/plant and with a better shape

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FERTILISER APPLIED

67% Decrease of Units of P Applied Compared to FSP

Fertiliser units of P applied

Steric P: 1.74

FSP Phosphoric Acid : 5.2

-67 %

Application per hectare

Steric P: 3kg

FSP: 10 litre

+12.1%

Phosphorus Level in Flowers per 100 g

Steric P: 108.2

FSP: 96.51

+18.6%

Artichokes per plant

Steric P: €25,228

FSP: €16,304e

Assessment over 45 DAT

Trial conducted by Masso, Spain

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Trial results for Biostimulant effect

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Table Grape

Grapes treated with
11 kg per hectare at
sprouting

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APPLICATION RATE

25% Increase Using Steric P in Addition to FSP

Steric P applied at early shooting per ha

Steric P: 5 kg in addition to FSP

+25%

Yield in kg per strain

Steric P: 16.5 kg

13.2

Yield in kg per strain

FSP: 13.2 kg

Trial conducted by Masso, Spain

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APPLICATION RATE

37% Increase Using Steric P in Addition to FSP

Steric P applied at early shooting per ha

Steric P: 11 kg

+37%

Yield in kg per strain

Steric P: 18.1 kg

13.2

Yield in kg per strain

FSP: 13.2 kg

Trial conducted by Masso, Spain

Olive -
Variety Picual
50 year old
plantation

Better fruit setting and
prematurity

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APPLICATION RATE

13% Increase in Fruit Yield Compared to FSP Alone

Application rate of Steric P pre flowering

Steric P: 10 kg in addition to FSP

+114%

% Bunches

Steric P: 61.25

FSP: 28.75

+13%

kg per Tree

Steric P: 40.81

FSP: 36.14

+21%

Weight of 10 Fruit

Steric P: 7.1 g

FSP: 5.9 g

Trial Over 38 DAT

Trial conducted by Masso, Spain

Potato Trial - Variety Renate 70 DAT

Steric P applied once at 5 kg per ha in addition to FSP. Assessment 70 days after treatment

Lemon -
Variety Fortuna

Dose: 11.43 kg/ha
One single application of
Steric P in addition to FSP.
Objective: Influence in fruit setting

Lemon -
Variety Fortuna
35 DAT

Differences are observed. Steric P treated trees have bunches with more fruits, with a good size and colour

Steric P Summary

- BioSF325 drives phosphate, potassium and nitrogen use efficiency
- Proven commercial performance in USA, South America and Spain
- Improved root and vegetative growth
- P acid fertiliser replacement
- Lower rates as a biostimulant
- High efficiency food grade MAP
- Reduced environmental impact

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Formed in 2012

R&D company with head quarters in North Carolina with total 200 + personnel

7 Manufacturing Sites

Verdesian has 4 manufacturing sites in the US and 3 sites in Europe, producing liquid and dry formulations.

300+ Patents

Over 300 patent families with research links to 7 universities in the USA and 3 universities in Europe (Greece, Italy and UK).

Globally Established

A global footprint operating across North & South Americas, Europe, Africa, Middle East, Asia and Far East.

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Thank you

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