

OPTYSIL[®]



UNIQUE
STABLE
FORMULA

INCREASE RESISTANCE
TO MINIMIZE YIELD LOSS



OPTYSIL[®] is an innovative SILICON immunity biostimulant, containing **active silicon form**, which owes its effectiveness to unique formula **duoSIL[™]**.

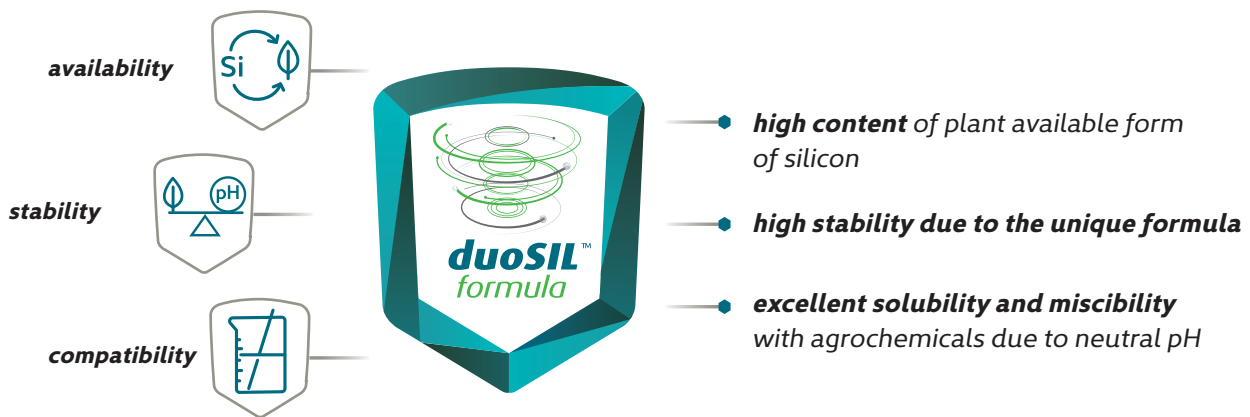
Silicon is one of the major component of the Earth's crust. In soil, the majority of silicon occurs in a form of silica, which is subjected to limited and slow weathering releasing low amounts of monosilicic acid – the only plant available form of silicon.

Monosilicic acid occurs in soil in low amounts and is very unstable. Plants can uptake it in very limited amount, therefore foliar application of silicon in a proper form is very important.

OPTYSIL[®] is a unique, liquid immunity biostimulant with high content (200g SiO₂/l) of active silicon form, easy plant available.

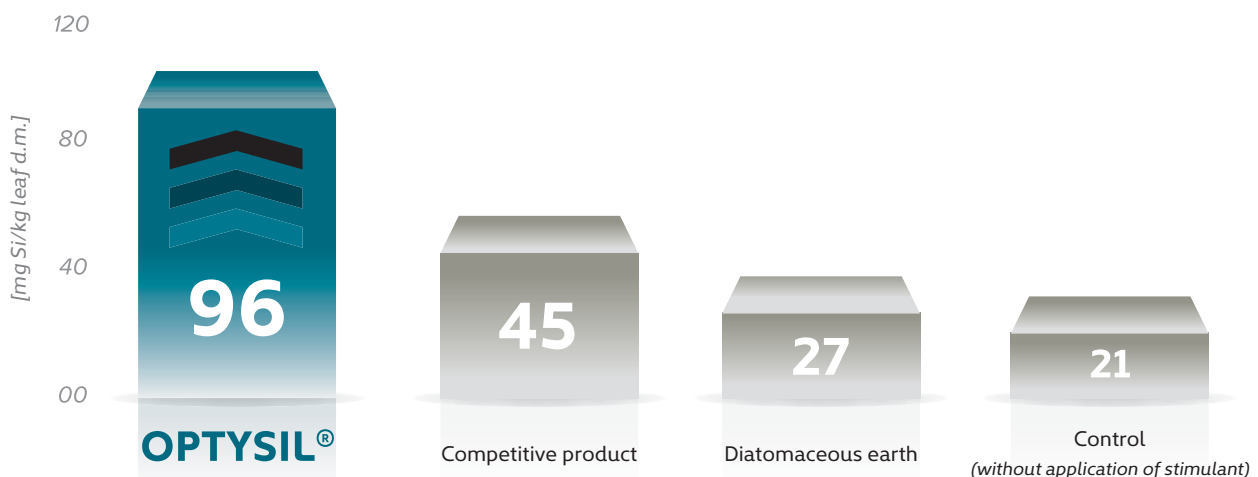
Unique formula **duoSIL[™]**, used in **OPTYSIL[®]** ensures easy and full availability of silicon contained in product, high stability and possibility of mixing with the majority of agrochemicals.

duoSIL[™] ensures:



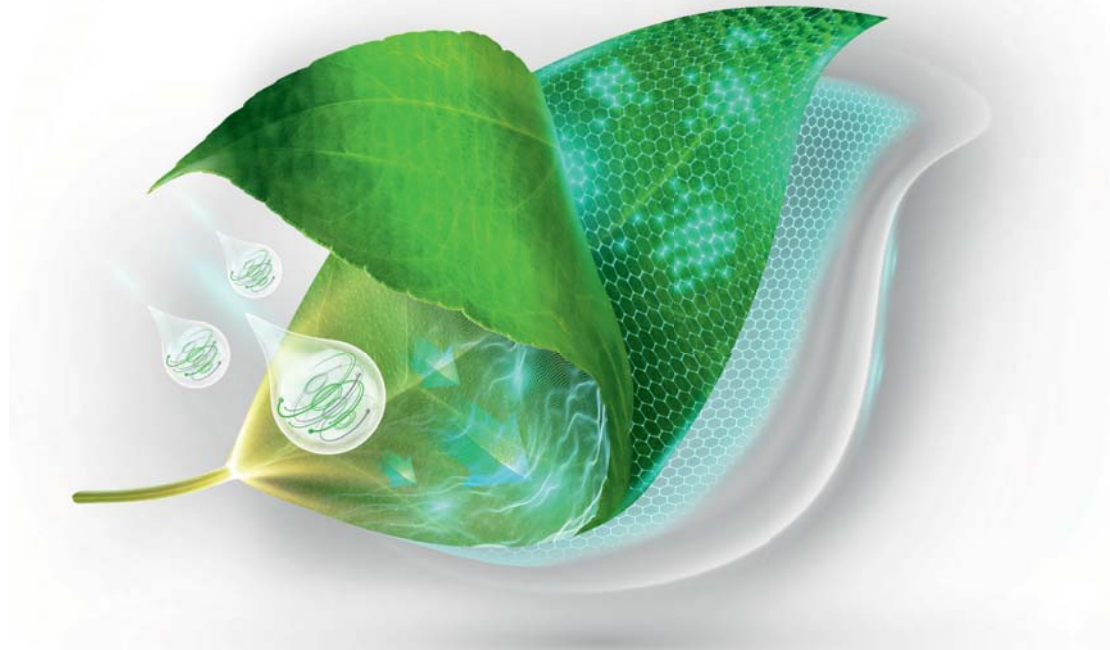
The effectiveness of silicon uptake by maize plants [mg Si/kg leaf dry matter]

INTERMAG trial, 2020



Samples collected 12 hours after application.

OPTYSIL® INCREASES NATURAL PLANT RESISTANCE:



OPTYSIL® ENSURES HIGHER YIELD AND BETTER YIELD QUALITY due to:



increased plant tolerance to drought and low temperatures – leaves, strengthened by silicon deposits in cell walls, demonstrate reduced transpiration and therefore plants are more tolerant to periodic water shortages and low temperatures

lower plant susceptibility to pathogen penetration – strengthened cell walls are natural barrier limiting the penetration of pathogens and their spreading in plant tissues



lower plant susceptibility to mechanical damages – cell walls, strengthened by silicon, are less susceptible to damages caused by strong wind, hail and pests

better yield quality – flexible and strengthened by silicon epidermis is less susceptible to cracking caused by pests and sunburns. Fruits are more durable during harvest, transport and storage.



better root system development – increased silicon concentration in plant tissues stimulates phosphorus uptake from soil, which results in better root system development



OPTYSIL[®] is EFFECTIVE:

Results of the studies confirming the effectiveness of OPTYSIL[®].



Drought, low temperatures

- +37%** higher photosynthesis intensity of maize plants in low temperatures – IPP - NRI
- +14%** higher water content in leaves of spring wheat during drought – PAS
- +9%** higher water content in leaves of maize in low temperatures – PAS



Better yield quality

- +37%** higher firmness of strawberry fruits during harvest – IPP - NRI
- +9%** higher sugar content in strawberry fruits – InHort
- +6%** higher firmness of apple fruits during storage – local experimental station, Verzuolo, Italy



Pests and diseases

- 47-57%*** less fruits infected by pathogens – InHort
- 35-61%*** less oilseed rape pods infected by pathogens – IPP - NRI
- 60-78%*** less leaves and stems infected by pathogens – InHort
- 9-20%*** less ears of cereals infected by pathogens – IPP - NRI



Root system development

- +175%** higher weight of maize roots in early stages of plant development, seven days after product application – IUNG

*in early stages of pathogen development

IPP - NRI - Institute of Plant Protection - National Research Institute, Poland

PAS - Polish Academy of Sciences, Poland

InHort - Research Institute of Horticulture, Poland

IUNG - Institute of Soil Science and Plant Cultivation, Poland

OPTYSIL[®] – VERSTAILITY:

OPTYSIL[®] is recommended in cultivation of all types of crops: arable, fruits and vegetables for foliar application, fertigation and watering.

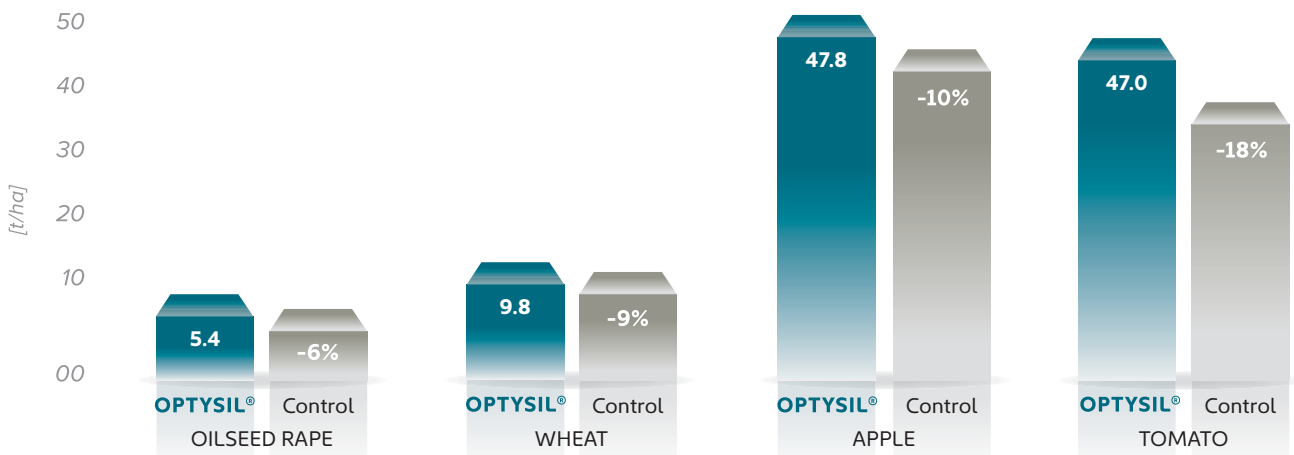
* number of treatments should be adjusted to plant vigor and growing conditions

CROPS



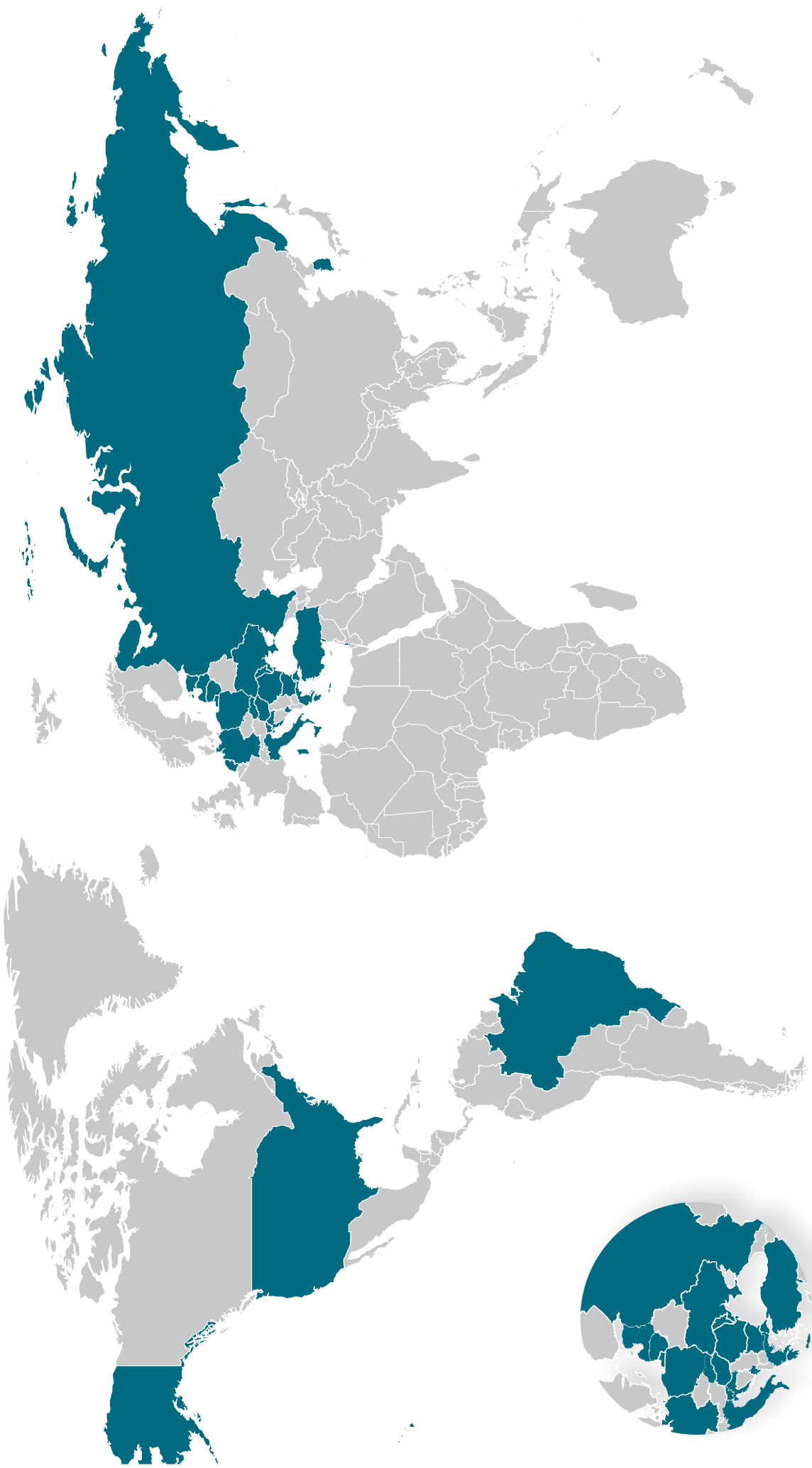
OPTYSIL[®] – MINIMIZED YIELD LOSS:

The average marketable yield of selected crops obtained from 1 ha after OPTYSIL[®] application compared to control, i.e. not treated plants (average dose: 2 x 0.5 l/ha)



Based on the trial results carried out by: Research Centre for Cultivar Testing (Poland), Research Institute of Horticulture (Poland), Institute of Plant Protection - National Research Institute (Poland); 2012-2017 years

OPTYSIL® in the world:



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APPLICATION OF **OPTYSIL**[®] IMMUNITY BIOSTIMULANT,
CONTAINING SILICON, STRENGTHENES PLANT CELL
WALLS, WHICH RESULTS IN INCREASED PLANT RESISTANCE
TO PATHOGENS.

*PhD Agata Broniarek-Niemiec,
Research Institute of Horticulture, Skierniewice, Poland*

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OPTYSIL[®] EFFECTIVELY REDUCES FORAGING OF CEREAL
LEAF BEETLE ON WINTER WHEAT AND EUROPEAN CORN
BORER ON CORN.

*prof. Marek Korbas, prof. Paweł Węgorok, PhD Joanna Zamojska,
Institute of Plant Protection - National Research Institute, Poznań, Poland*

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OPTYSIL[®] EFFECTIVELY REDUCES SYMPTOMS
OF AMERICAN GOOSEBERRY MILDEW ON GOOSEBERRY.

*PhD Agata Broniarek-Niemiec,
Research Institute of Horticulture, Skierniewice, Poland*

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