Aspe

Silic ON

Silicon Fertilizers

IMPORTED FROM EU

Quality and Health

6 Keys to achieve growth and yield Silic[on] increases

1. Resistance to disease and pest.
2. Cell structure.
3. Photosynthetic Activity.
4. Uptake of Nutrients
5. Resistance to Environmental Stresses.
6. Post Harvest Life.

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6 Keys to achieve growth and yield Silic[on] increases

1 Resistance to disease and pest:

Si deposition in the epidermis tissues provides a physical barrier to pathogens and insects, allowing for a reduction in the frequency of chemical applications.

2 Cell structure:

Si accumulated un the epidermal tissues increases the mechanical estability of the plant. Reduces the incident of lodging.

3 Photosynthetic Activity:

The improved structure produces stronger stems with more erect leaves, increasing its ability to capture light.

4 Uptake of Nutrients

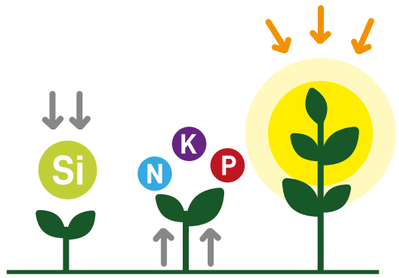
Particularly Nitrogen, Phosphorous, Potassium and Micronutrients.

5 Resistance to Environmental Stresses.

- **Reduced drought and heat stress.** The deposition of Si in the plant tissues reduces transpiration rates.
- **Reduce salt stress** by inhibiting Sodium uptake.
- **Alleviate toxicity of heavy metals:** Iron, Manganese, Cadmiun, Aluminium, and Zinc by regulating plant uptake

6 Post Harvest Life.

Si can associate with cell wall proteins where it might exert an active production of defence compounds.



Aspe Silic[ON]

Product range

Silic ON Amyn

COMPOSITION	%w/v
Silicon (SiO_2)	26,4
Potassium (K_2O)	10,2
Free Amino Acids	3,0

Silic ON Ca Flow

COMPOSITION	%w/v
Silicon (SiO_3)	24,0
Calcium (Ca)	15,0
Density 1,40	
pH 7-8	

Silic ON Ca Mg Flow

COMPOSITION	%w/v
Silicon (SiO_2)	27,00
Calcium (CaO)	23,50
Magnesium (MgO)	8,25
Density 1,50	
pH 5-6	

Silic ON Fe

COMPOSITION	%w/v
Silicon (SiO_2)	17,5
Iron (Fe)	3,0

8 Group of crops in which Silic^{on} works

Banana

Vegetables

Chili
Cucurbit
Onion
Tomato
Strawberry

Fruit trees

Avocado
Pomegrenade
Date Palm

Turf

Potato

Cereals

Sugar cane

Cotton

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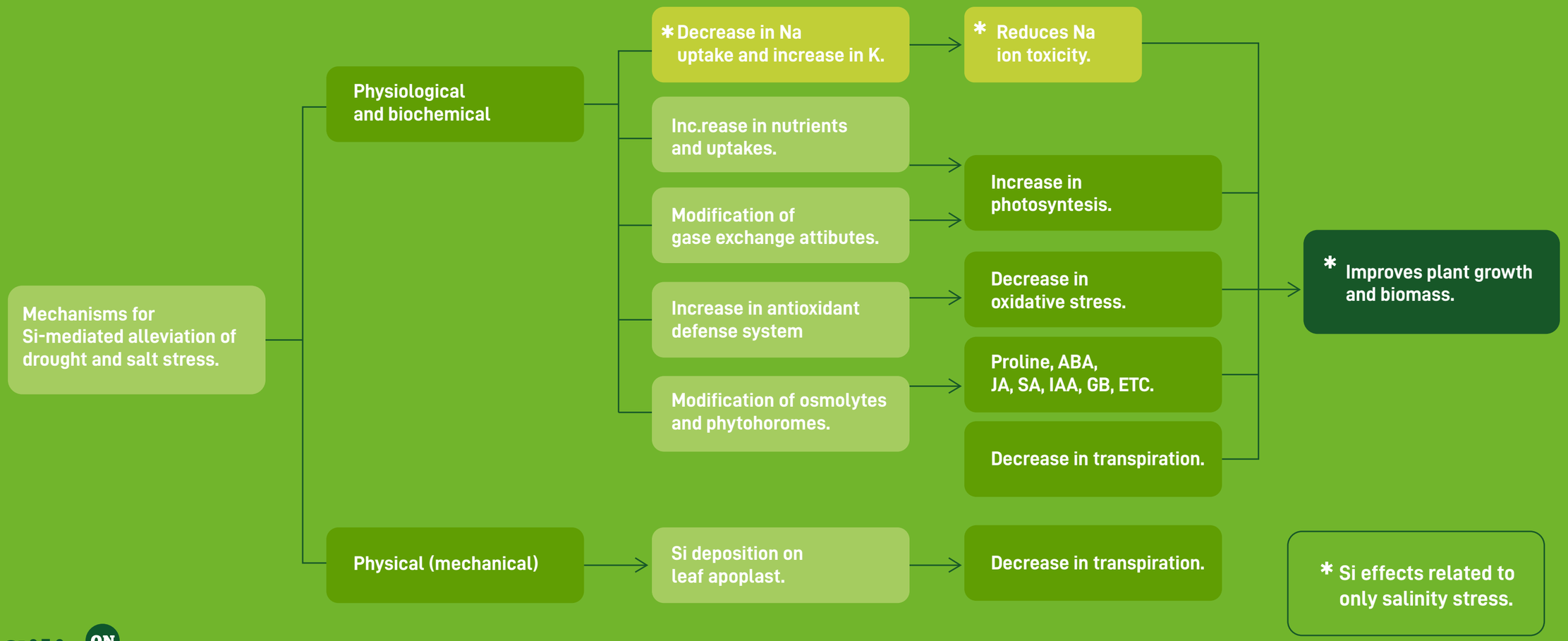
Silic[on] increases the resistance of the plants against diseases

Crop	Disease	Reference
 **Rice**	Sheath Blight Neck blast Leaf blast Brown spot Leaf scald Stem rot	Rodrigues et al (2001) Datnoff et al (1991) Seebold et al (2001) Datnoff et al (1991) Seebold et al (2000) Seebold et al (2000)
 **Wheat**	Powdery mildew	Menzies et al (2002)
 **Cucumber**	Powdery mildew	Menzies et al (1991)
 **Sugarcane**	Sugarcane ring spot	Matichenchov & Calvert (2002)

Crop	Disease	Reference
 **Barley**	Powdery mildew	Jiang et al (1989)
 **Cowpea**	Rust	Heath & Stumpf (1986)
 **Grass**	Leaf spot	Brecht et la (2004)
 **Rose**	Podosphaera pannosa	Shetty et la (2004)

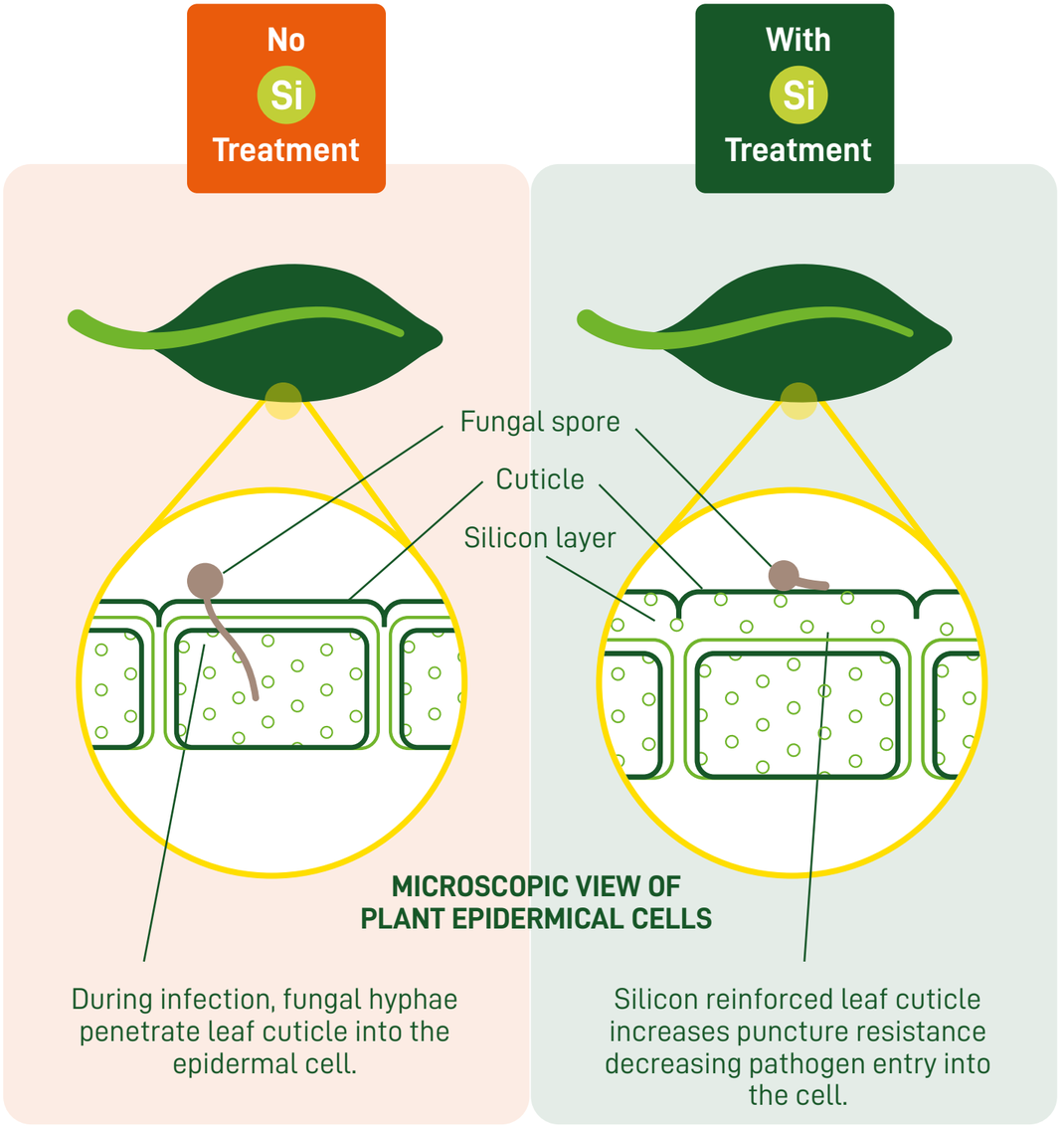
Mechanisms for Si-mediated alleviation of drought and salt stress in plants

Rizwan M. et al (2015)



Mode of action

Typical action of a Silicon treatment



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SilicON