



sungro[®]
HORTICULTURE

Our Expertise is Growing™

RESiLIENCE[®]
SiLICON ENRICHED

?

frequently
asked
questions

sungro.com



RESiLIENCE[®] is Sun Gro's name for growing mixes containing silicon, which is a natural and beneficial plant nutrient.



How do I know that the silicon in RESiLIENCE[®] mixes is in the mix or if it is being taken up by the plant?

A The best way to know that RESiLIENCE[®] is in the mix is to observe plant responses, which vary among plant species and cultivars. Plant responses may include enhanced root growth, increased stem diameter and strength, improved drought tolerance and delayed wilting between waterings. (See table A. for a list of plant responses)



Why do plant growth responses vary?

A Plants take up, accumulate and use silicon differently. The amount of silicon in the plant tissue does not necessarily relate to immediate, improved plant performance.

- Some plants efficiently use small amounts of silicon that they take up daily.
- Other plants take up and store silicon, utilizing it when exposed to stressful conditions.
- Certain plant species take up silicon rapidly when exposed to environmental stresses. In this case, RESiLIENCE[®] mixes are like an insurance policy... available when needed.



Do RESiLIENCE[®] mixes provide silicon for the life of the plant?

A Our research with long term crops like poinsettias and mums has shown that plants were still accumulating silicon after 16-18 weeks.



If I transplant RESiLIENCE[®] grown plants into bigger pots without using RESiLIENCE[®] mix, will silicon still benefit the plant?

A Once a plant takes up silicon, it stays in the plant and gets deposited in the cell structure. Silicon doesn't move around in the plant. As plants grow in RESiLIENCE[®] mixes, roots encounter and take up silicon. As the roots grow in the new (no silicon) mix, there is no silicon available to the new roots. The benefits of the original RESiLIENCE[®] mix will diminish because only the older part of the plant will have any silicon available.



What is the shelf life of silicon in the packaged growing mix?

A RESiLIENCE[®] mixes have the same recommended shelf life as our former non-silicon mixes.



Is silicon safe, non-toxic to plants?

A RESiLIENCE[®] mixes have been tested across a wide number of plant species and have been shown to have an excellent record of positive plant growth.



Are fruits and vegetables from RESiLIENCE[®] grown plants, like tomatoes, safe for human to eat?

A Silicon is naturally occurring and is the second most abundant element in the earth's crust, so all plants may take up silicon from the soil. Fruits and vegetables from plants grown in RESiLIENCE[®] mixes would be as safe for consumption as those grown in your garden soil.



Is there silicon in non-RESiLIENCE[®] mixes?

A Silicon is present in some growing media components. The amount of silicon in these components is not at an adequate level to provide the benefits obtained with RESiLIENCE[®] mixes which contain the correct silicon amount necessary to boost plant performance.



Plants Exhibiting Positive Growth Responses in Peat and/or Bark RESILIENCE® Mixes

Plant Botanical Name	Plant Common Name	Better Rooting	Resistance to Wilt	Thicker Stems	Earlier Flowers	Compact Growth
Annuals*						
<i>Angelonia angustifolia</i> 'Serena Blue'	Summer Snapdragon	●	●	●	●	
<i>Antirrhinum majus</i> 'Twinny Violet'	Snapdragon	●		●		
<i>Begonia semperflorens</i> 'Bada Bing Green Leaf Scarlet'	Begonia	●		●	●	●
<i>Calibrachoa x hybrida</i> 'Callie Mango'	Calibrachoa	●	●	●	●	●
<i>Catharanthus roseus</i> 'Nirvana Violet'	Vinca		●	●		●
<i>Catharanthus roseus</i> 'Nirvana Pink Blush'	Vinca				●	
<i>Cucumis sativus</i> 'Straight Eight'	Cucumber	●	●	●		●
<i>Dahlia hybrida</i> 'Figaro Yellow Shades'	Dahlia	●	●	●		●
<i>Gerbera jamesonii</i> 'Jaguar Rose with Dark Center'	Gerber Daisy		●	●	●	●
<i>Helianthus annuus</i> 'Sunny Smile'	Sunflower	●		●	●	●
<i>Impatiens hawkerii</i> 'Sonic Amethyst'	New Guinea Impatiens		●			●
<i>Impatiens walleriana</i> 'Accent™ Premium Deep Orange'	Impatiens	●	●	●		
<i>Lantana camara</i> 'Bandana Rose'	Lantana		●	●		
<i>Osimum basilicum</i> 'Genovese'	Basil	●	●			●
<i>Osteospermum ecklonis</i> 'Akila Purple'	African Daisy		●			
<i>Pelargonium interspecific</i> 'Calliope Scarlet'	Geranium - zonal	●		●	●	●
<i>Pentas lanceolata</i> 'Graffiti Bright Red'	Pentas	●		●		●
<i>Petunia x hybrida</i> 'Dreams Midnight'	Petunia - grandiflora		●	●		
<i>Salvia splendens</i> 'Mohave Red'	Salvia - annual	●	●	●		●
<i>Scaevola aemula</i> 'Bombay® Dark Blue'	Fan Flower				●	
<i>Solenostemon scutellarioides</i> 'Versa Rose to Lime'	Coleus	●	●	●		●
<i>Tagetes erectus</i> 'Moonsong'	African Marigold			●		
<i>Tagetes patula</i> 'Disco Marietta'	French Marigold	●	●	●		
<i>Torenia fournieri</i> 'Kauai Deep Blue'	Clown Flower		●		●	●
<i>Verbena x hybrida</i> 'Lanai Red'	Verbena		●		●	●
<i>Zinnia elegans</i> 'Magellan Yellow'	Zinnia		●	●	●	●
<i>Zinnia elegans</i> 'Uproar Rose'	Zinnia		●			

* Plants grown from plug to finished in 1 L (4.5") pots

Perennials*						
<i>Chrysanthemum</i> 'Padre Yellow'	Belgian Mum	●	●			●
<i>Coreopsis verticillata</i> 'Moonbeam'	Coreopsis				●	●
<i>Delphinium elatum</i> 'Aurora Blue'	Delphinium	●	●	●	●	●
<i>Digitalis purpurea</i> 'Dalmation Purple'	Foxglove	●	●	●		●
<i>Leucanthemum x superbum</i> 'Real Glory'	Shasta Daisy	●	●	●		●
<i>Echinacea purpurea</i> 'Leuchtstern'	Echinacea	●				●
<i>Phlox paniculata</i> 'Laura'	Garden Phlox	●	●	●	●	●

* Plants grown from plugs in 1 gallon pots in the greenhouse

Plugs*						
<i>Brassica oleraceae</i> var. 'Italica'	Broccoli	●	tbd	●	tbd	●
<i>Brassica oleraceae</i> Gemmifera Group	Brussels Sprouts	●	tbd		tbd	
<i>Brassica oleraceae</i> var. 'Capitata'	Cabbage	●	tbd	●	tbd	●
<i>Brassica oleraceae</i> var. 'Botrytis'	Cauliflower	●	tbd	●	tbd	●
<i>Capsicum annuum</i> 'Tomcat'	Pepper	●	tbd	●	tbd	●
<i>Gerbera jamesonii</i> 'Jaguar Red'	Gerbera					●
<i>Lactuca sativa</i> 'Green Towers Romaine'	Lettuce		●			●
<i>Lycopersicon esculentum</i> 'Bobcat'	Tomato	●	tbd		tbd	
<i>Pelargonium x hortorum</i> 'Darko® Deep Red'	Geranium	●	tbd	●	tbd	●
<i>Pelargonium x hortorum</i> 'Darko® Pink'	Geranium	●	tbd	●	tbd	●
<i>Petunia x hybrid</i> 'Salmon Storm'	Petunia					●
<i>Zinnia elegans</i> 'Magellan™ Cherry'	Zinnia	●	tbd		tbd	●
<i>Zinnia elegans</i> 'Magellan™ Salmon'	Zinnia					●

* Plugs grown from seed or cuttings (geranium) in 288 or 105 cell plug trays.

Vegetable Starts*						
<i>Capsicum annuum</i> 'Tomcat'	Pepper - bell	●	tbd	●	tbd	●
<i>Cucumis melo</i> 'Athena'	Melon - canteloupe	●	tbd	●	tbd	●
<i>Cucurbita pepo</i> 'Enterprise'	Summer Squash	●	tbd		tbd	●
<i>Cucurbita pepo</i> 'Spineless Beauty'	Zucchini	●	tbd	●	tbd	
<i>Osimum basilicum</i> 'Genovese'	Basil	●	tbd	●	tbd	●

* Plants grown from seed in jumbo 6-packs