



SiAgra

Oasis Anywhere

Improving Yields
Of Agricultural Crops

February 2020





About SiAgra

SiAgra is an innovative solution **improving yields of agricultural crops** and including or returning non-productive, infertile, arid and sick soils to agriculture.

SiAgra is a **nanomaterial** based on potassium hydro-silicate hard gel, amorphous silica and organic acids.

SiAgra is a **perfect growing medium** for **artificial soil** based on sandy ground.





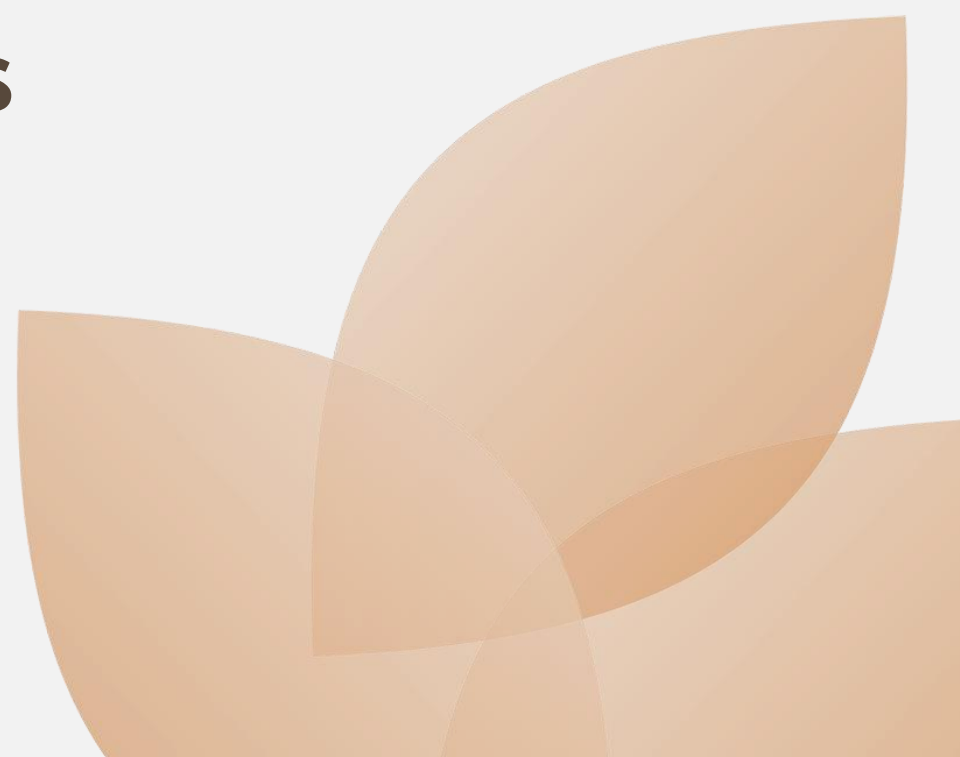
Why SiAgra

Global **climate change** leads to **reduction of production acreage** on our planet while intensive agriculture **exhausts the soils**.

Many regions in the world experience the **deficit of fresh water** while sweet water represents just 3% of Earth's water storage.

These conditions define great relevance of **SiAgra** due to its unique properties and characteristics.



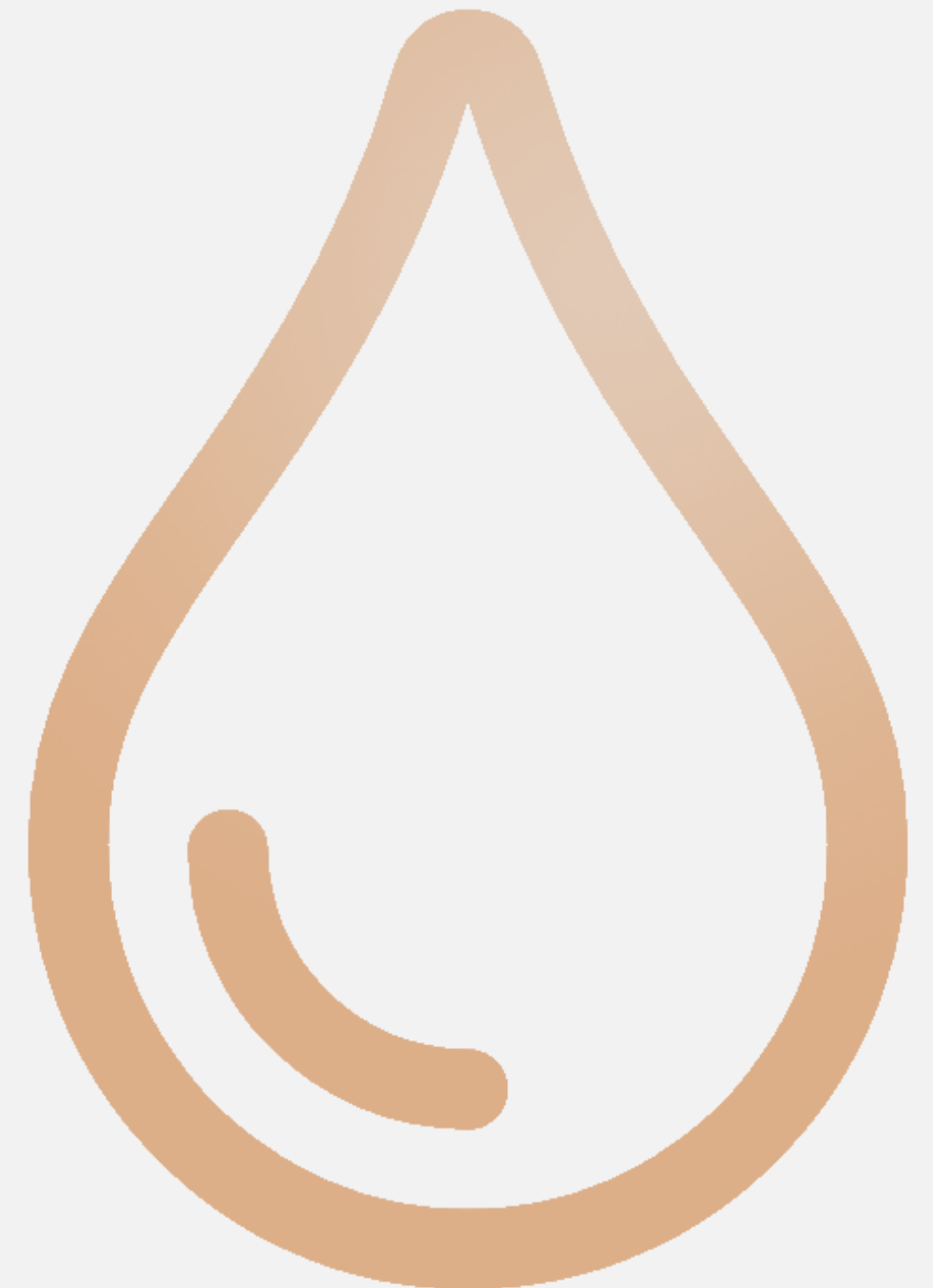
- ✿ Significant **improvement of soil agrophysical properties**
 - ✿ Purposeful **management of soil fertility**, including sandy grounds
 - ✿ Significant **improvement of soil water-retaining capacity**
 - ✿ **Prevention of soil salinization**
 - ✿ Improving plants **resistance to diseases and crop pests**
 - ✿ Supports **plants adaptation** to global climate change
 - ✿ Reducing soil exhaustion and **restores productivity**
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How Does SiAgra Work?

SiAgra creates a water depot

- 🌱 During watering **SiAgra binds the water** and forms a colloidal structure
- 🌱 Then it **releases water enriched with potassium and silica to the root system** as and when necessary
- 🌱 Depending on soil type this allows a **30-60% reduction of water consumption** for irrigation





How Does SiAgra Work?

SiAgra forms organics in the root area

- ✿ Adding **SiAgra** to sandy ground enables the **effect of organics forming in the root area**
- ✿ As a result as plants grow the **amount of humus grows** instead of declining
- ✿ Availability of a sufficient amount of humus and **high water-retaining capacity** allow **managing the growth of the root system**

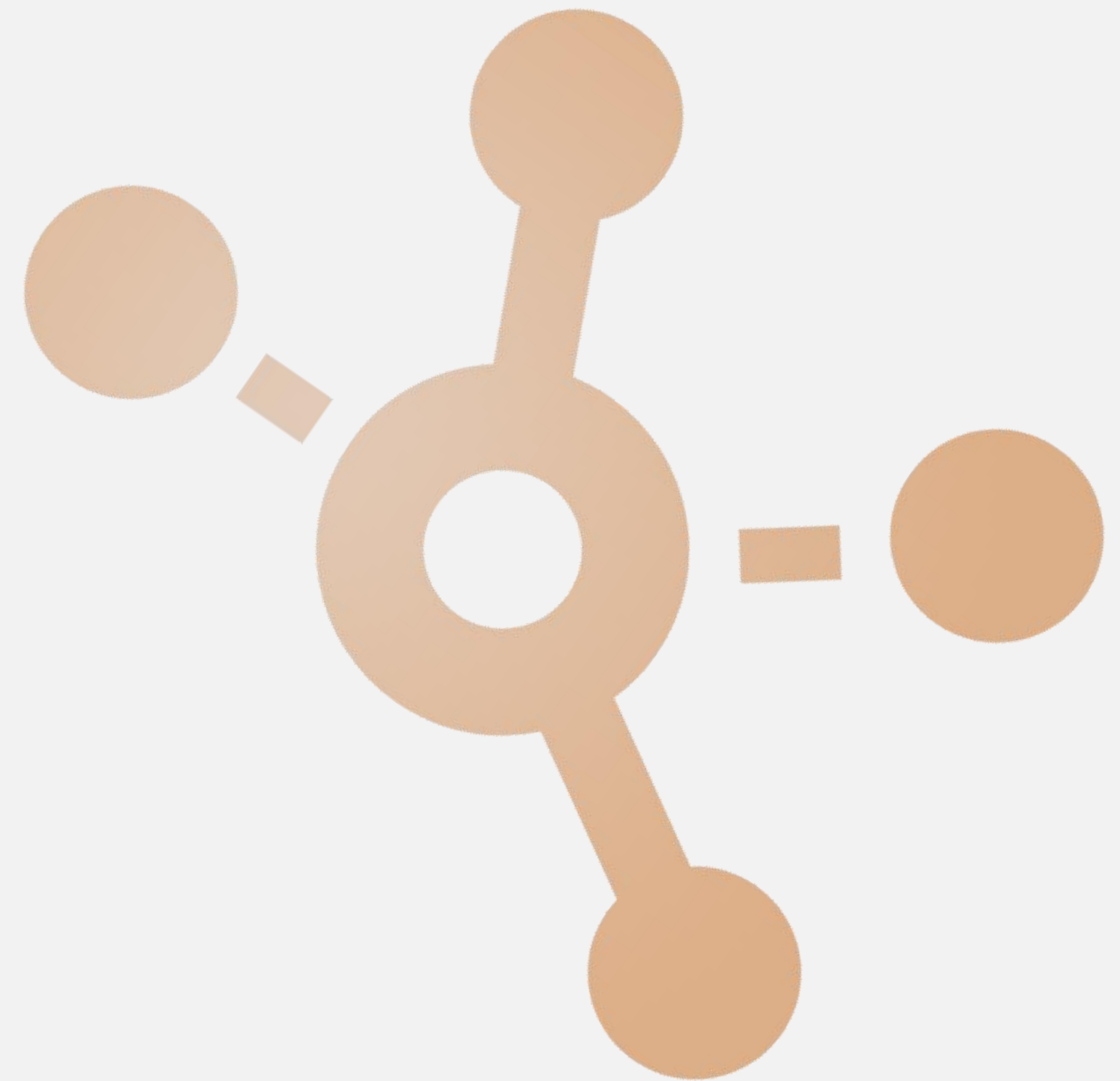




How Does SiAgra Work?

SiAgra creates depot of useful substances

- ✿ **SiAgra** creates a depot of essential **micro-** and **macroelements**
- ✿ Significantly **stimulates the growth of the root system**
- ✿ **Reduces the absorption of heavy metals and radionuclides** by plants
- ✿ Stimulates the **growth of nitrogen-fixing microorganisms**





How Does SiAgra Work?

SiAgra contributes to plant health

- 🌱 **SiAgra stimulates increased content of glutathione and ascorbic acid** in plant's leaves
- 🌱 **Supports plant growth**, as a result, plants grown with **SiAgra** look **stronger and more healthy**
- 🌱 **Intensifies photosynthesis** for plants with various photosynthesis types (C3, C4, CAM)





SiAgra

Performance

The **results of the research** conducted by Ukrainian National Botanical Garden of National Academy of Science with **wheat seeds planted to different soils**





Application

SiAgra would deliver the best effect in **arid regions** with **infertile soils** and a **lack of fresh water**.

It would be also effective to use SiAgra for:

- 🌱 **Urban greening** and landscaping
- 🌱 Production of **potting substrate**
- 🌱 **Growing of grass lawns** for stadium fields, courts and golf courses





Application

Although **SiAgra** is an **all-purpose** agricultural solution, there is no one universal application for all.

The great variety of plant species with different photosynthesis types, climate conditions and soil qualities require **custom solutions** for every particular task or project.

Contact us to discuss and find the solution tailored right for you.

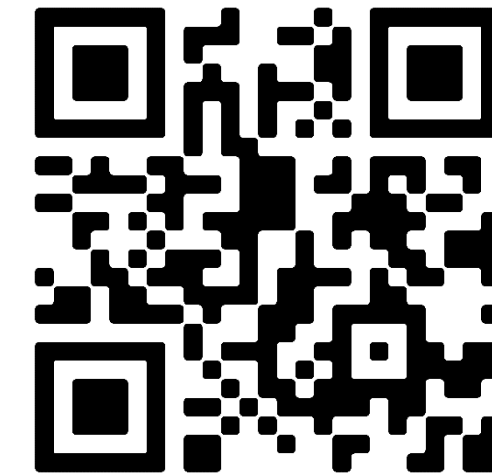




Contacts

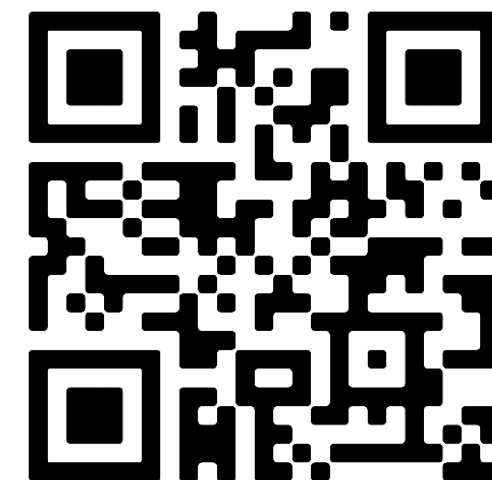
Visit our website to see info
about our products and solutions:

<https://si-tech.solutions/siagra>



Visit our YouTube channel
for product demo videos:

<https://tinyurl.com/Si-Tech>





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