



STRONG POLYMER, TRUSTED SOLUTION

— Qingdao SOCO New Material Co.,Ltd. —



2 BILLION PEOPLE ARE FACING WATER SHORTAGE IN THE WORLD

According to the United Nations' 2023 World Water Development Report, approximately 2 billion people globally face issues with access to safe drinking water. Agricultural water use accounts for nearly 70% of global water withdrawals, a figure that can reach as high as 95% in some developing countries.





OVERCOMING CHALLENGES WITH TECHNOLOGY, SERVING THE WORLD WITH OUR PRODUCTS AND SERVICES.

- ◆ SOCO® has always been committed to alleviating water scarcity, improving soil conditions, and achieving abundant harvests through the technology of soil Water Retaining Agents, striving to reduce hunger through technological means.
- ◆ Our mission is to overcome challenges with technology and serve the world with our products.



Introduction

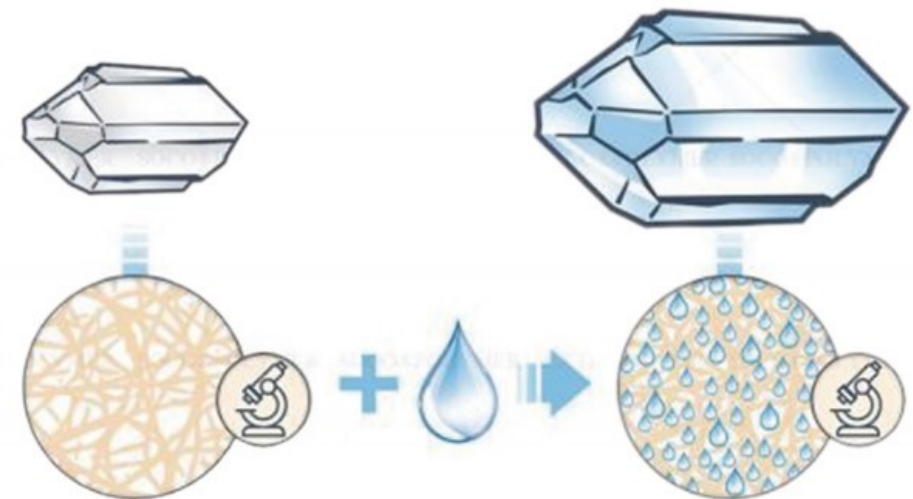


SOCO® Soil Hydrogel

- One kind of new functional polymer material.
- With good water absorption & water holding capacity.
- It absorbs liquids equivalent to several hundred times of its body mass and transforms into hydrogel quickly.

How It Works

SOCO® Soil Hydrogel has the proper three dimensional net structure which enhances the ability to combine itself with large quantities of water. When the soil becomes dry it would release more than 80% of its stored moisture back into the soil to ensure that the plant is properly hydrated and has sufficient water.



SOCCO® Soil Hydrogel Products List

Categories	Models	Size/Mesh	Applications	Features
TRPSORB™	TRPSORB-124	20-40	Fruit tree transplanting Forestry transplanting Flower transplanting	Providing seedling transplanting sufficient water and nutrients, promote rooting, and increase the survival rate up to 99% TRPSORB-124 is suitable for clay and enhances soil permeability TRPSORB-120 is suitable for sandy loam and forms a water-retaining layer to prevent the loss of water and fertilizer
	TRPSORB-120	20-80		
HORTISORB™	HORTISORB-24	20-40	Garden Landscaping	When planting new flowers, improve the germination rate and survival rate, and ensure that the germination is uniform to ensure beautiful landscaping and smooth project delivery.
	HORTISORB-22	20-80	Lawn greening	When building a new lawn, it can improve the survival rate of the lawn
FERTISORB™	FERTISORB-215	5-10	Organic Fertilizer Bacterial Fertilizer Compound fertilizer	Recommend FERTISORB-231 when granulating: Improve the uniformity of fertilizer particles, the surface of fertilizer particles is finer, and size uniformity is better. Accelerate the disintegration of fertilizer particles, increase the release rate and fertilizer efficiency. Compound fertilizer mixing: suitable for fertilizer mixing field, providing different mesh sizes
	FERTISORB-242	20-40		
	FERTISORB-221	10-20		
	FERTISORB-225	5-10		
	FERTISORB-282	20-80		
	FERTISORB-231	30-100		
GREENSORB™	GREENSORB-620	20-80	Vegetables	Suitable for sandy loam, shortens the growth cycle, increases yield
	GREENSORB-612	10-20		Suitable for clay, enhances soil permeability, suitable for machine sowing
CROPSORB™	CROPSORB-624	20-40	Crops	Reduces irrigation times, improves fertilizer efficiency, increases production and income
SATSORB™	SAT-205	5-20	Customized products (adapted to saline-alkali land improvement)	Suitable for saline-alkali land improvement, 5-20 mesh for fruit trees, 20-80 mesh recommended for vegetable fields
	SAT-220	20-80		
	SAT-230	30-100		
BIOSORB™	BIOSK-205	5-20	Customized products (organic cultivation)	Applied for organic farming
	BIOSK-220	20-80		
	BIOSK-230	30-100		

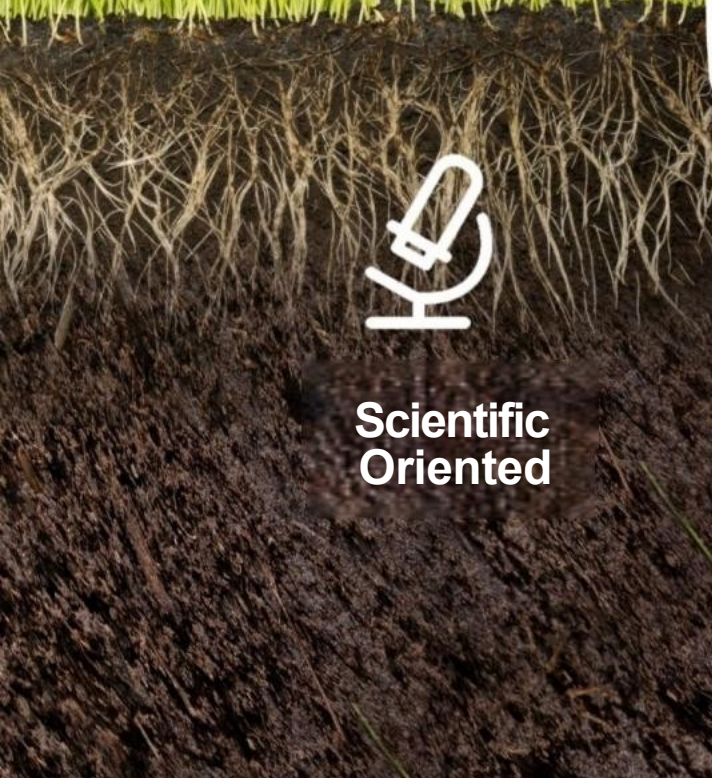




MANAGEMENT PHILOSOPHY

- Customer-centric, result-oriented
- Sharing results
- Growing in responsibility
- Striving for excellence
- Pursuing profitable growth





**Scientific
Oriented**

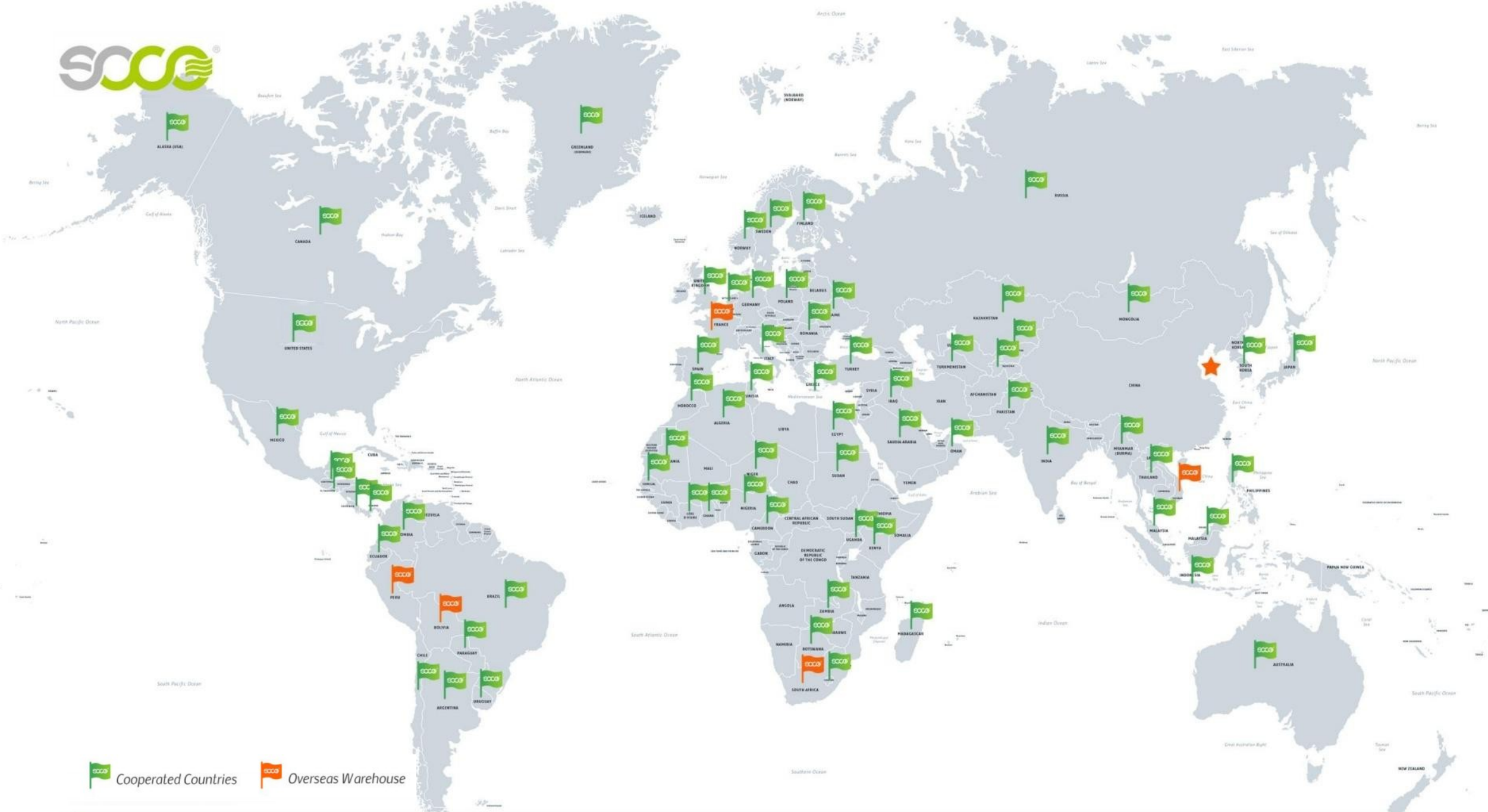


**Scientific Oriented,
Cherish Water**



**Cherish
Water**





 Cooperated Countries

 Overseas Warehouse



- Focusing on the dual innovation of the agriculture and planting laboratories and product R&D laboratories.
- Committed to delivering high-quality products by employing advanced and unique formulas and applying total quality control of the production process.
- Taking products as the bridge for win-win cooperation.



ABOUT 50% SAVING IN WATER

- **Reduce water evaporation**
- **Improve irrigation water use efficiency**

As demonstrated by experiments, the irrigation water can be reduced by 1/3 or even up to 50% in planting areas where SOCO® Soil Hydrogel is applied.





ABOUT 20% INCREASING IN YIELD

**Improving yield with the effects of
water conservation.**

The application of SOCO® Soil Hydrogel can significantly promote plant development and increase yield. The yield can be increased by 67% in rare cases.





ABOUT 99% IMPROVE THE SURVIVAL RATE OF TRANSPLANTING

Providing moisture during plant transport.

According to the feedback, the transplanting survival rate can reach up to 99% by applying SOCO® Soil Hydrogel.





ABOUT 65% IMPROVING FERTILIZER EFFICIENCY

Reduce water and fertilizer loss,
improving the fertilizer efficiency.

As shown by experiment results, SOCO® Soil Hydrogel can prolong fertilizer effects and increase the efficiency of base fertilizer by 35%-50%, and water-soluble fertilizer by 35%-65%.





ABOUT 50% SAVING IN LABOR COST

**Reducing irrigation frequency
and saving labor costs**

The application of SOCO® Soil Hydrogel can reduce irrigation frequency and topdressing, thus saving labor costs.





Case&Feedback





SOCO® POLYMER

Guangdong, China - Sugarcane Seedling Experiment

Seedling survival rate increased by 95.33%↑

Crop Type: Sugarcane

Location of Use: Guangdong, China

Purpose: To test the promoting effect of SOCO Soil Water Retaining Agent on seedling survival rate and determine the optimal dosage for seedling cultivation.

Soil Conditions: Heavy clay soil, poor air permeability; hot summer weather, rapid water evaporation.

Product Model and Dosage: SOCO Soil Water Retaining Agent Fertisorb™, dosage of 100kg/ha; dry application, mixed with fertilizer.

Results:

The project consisted of 4 test groups and 1 control group, with SOCO® polymer dosages of: 0.00g/plant (CK), 0.02g/plant (S1), 0.04g/plant (S2), 0.08g/plant (S3), and 0.10g/plant (S4).

The final trial results showed that using polymer increased the survival rate of seedlings in the greenhouse. The S4 group had the highest seedling survival rate, at 95.33%, while the CK group without the SOCO® polymer had a survival rate of 68.67%.

Using SOCO® polymer increased the drought resistance of seedlings. Under simulated drought conditions, the S4 group achieved the highest seedling survival rate, at 88%, while the CK group without the polymer had a survival rate of 56%.



陕西粮农产业技术研究院

青岛首科新材料有限公司

土壤保水剂创新中心签约仪式

暨技术研讨会

2023年10月31日



SOCO®POLYMER

Strategic Cooperation with Shaanxi Grain and Oil Group

Crop Type: Field Crops

Location of Use: Shaanxi

Purpose: Drought resistance, water conservation, soil moisture retention.

Project Introduction:

Established a strategic partnership with Shaanxi Grain and Oil Group to promote sustainable agriculture in Shaanxi through the use of SOCO® polymer. The goal is to ensure that crops can safely harvest even under drought conditions, achieving the environmental goals of water conservation and soil moisture retention. This collaboration aims to support the sustainable development of agriculture in Shaanxi Province, promote modern agricultural technology, and improve crop yield and quality.



SOCO® POLYMER

Huaping Water Conservation Forest Project in Yunnan

Crop Type: Economic Fruit Trees

Location of Use: Huaping County, Yunnan

Purpose: Improve the survival rate of fruit trees

Project Introduction:

In response to the national call, SOCO came to Huaping, Yunnan, to support the local construction of national ecological forests/economic forests. SOCO® polymer plays a role in the planting area at an altitude of 2000 meters, significantly improving the survival rate of mango trees, wetland pines, and other trees.



SOCO® POLYMER

**Shanxi University Demonstration Field
Project Yield increase of 25.92% ↑**

Crop Type: Corn

Location of Use: Linfen City, Shanxi Province

Purpose: Evaluate the yield increase of corn with the application of bio-organic fertilizer and SOCO soil Water Retaining Agent.

Soil Conditions: Sandy loam soil and loam soil

Product Model and Dosage: Compound fertilizer, organic-inorganic fertilizer mixed at 2kg/ha, CROPSORB™

Results:

Organized by the Institute of Applied Chemistry of Shanxi University, experts conducted on-site assessments to verify the effectiveness of bio-organic fertilizer combined with SOCO® polymer in increasing corn yield. Through comparative experiments, the corn yield in the demonstration field was significantly higher than that in the control field where only chemical fertilizer was applied, demonstrating the positive effects of bio-organic fertilizer and SOCO® polymer.



Unused

A wide-angle photograph of a flat, open landscape under a clear blue sky. The ground is mostly bare and light-colored, with a few sparse, thin trees or shrubs in the distance. This represents farmland that is not currently being used for agriculture.

Used

A close-up photograph of a lush green field of crops, likely buckwheat, growing densely together. The plants are tall and healthy, indicating successful agricultural use of the land.

SOCO® POLYMER

Guyaung County, Inner Mongolia High Standard Farmland Project

Crop Types: Buckwheat, Astragalus, Corn, Sugar Beet

Location of Use: Inner Mongolia

Purpose: Increase yield, conserve water, retain moisture

Project Introduction:

As part of the national high-standard farmland project, SOCO® polymer has been widely used in hundreds of thousands of ha of farmland in Inner Mongolia. Through this project, SOCO has helped Inner Mongolia's agriculture reach higher standards and promoted the sustainable use of regional agricultural resources.



SOCO® POLYMER

**Cotton in Yuli County, Bazhou, Xinjiang,
Yield increase of 28.1%↑**

Crop Type: Cotton

Location of Use: Yuli County, Bazhou, Xinjiang

Purpose: Combat drought, increase yield

Soil Conditions: Sandy soil: poor fertility, severe permeability, poor water and fertilizer retention

Application and Dosage: 75 kg/ha; dry application

Results:

The cotton plants treated with SOCO® polymer showed vigorous growth in the mid to late stages, with lush leaves and branches, and good fruit setting. The use of SOCO® polymer reduced irrigation water by 40% and the number of irrigation times (from 5 times to 3 times). Ultimately, the cotton yield increased by 28.1% with the use of SOCO® polymer.



SOCO® POLYMER

Sunflower Planting in Russia

Income increased by 37%↑

Crop Type: Sunflower

Location of Use: Russia

Purpose: Evaluate the yield increase of sunflowers with the application of bio-organic fertilizer and SOCO® polymer

Application Method: Dry and wet methods

Product Model and Dosage: 20-25KG/ha; FERTISORB-282

Results:

Water scarcity is a perennial problem faced by this sunflower grower in Russia. To address this, the customer chose SOCO® polymer. After use, the sunflowers were able to meet their irrigation needs solely through natural precipitation. Additionally, there was an increase in yield of 800kg/ha, resulting in an income increase of approximately 37%!



SOCO® POLYMER

Rice in Sri Lanka

Yield increase of 64.79%↑

Crop Type: Rice

Location of Use: Sri Lanka

Purpose: Promote growth, increase yield, enhance drought resistance of crops

Soil Conditions: Sandy loam soil and loam soil

Product Model and Dosage: SOCO® POLYMER FERTISORB™; dosage of 100kg/ha; dry application, mixed with fertilizer.

Results:

Observation after 45 days of planting: Compared with the control group without the polymer, the average number of leaves per plant increased by 57.57%, the average tiller number per plant increased by 71.42%, the average plant height increased by 0.81%, and the average leaf length increased by 5.42%. It can be seen that the use of SOCO® polymer significantly promotes the growth of rice.

Observation of seed quantity and yield: Compared with the control group without the polymer, the total seed weight (10 plants) increased by 43.71%, and the total yield increased by 64.79%. It can be seen that the use of SOCO® polymer significantly increases the yield of rice.



WE PROVIDE CUSTOMIZED SOLUTIONS
BASED ON PROFESSIONAL TECHNOLOGIES AND AUTHENTIC DATA

Technology



Familiar with over 260 types of crops



Familiar with 12 types of soil



Familiar with the characteristics of 13 types of climates



Processing 39 test fields located in 26 countries and regions worldwide



青岛科技大学
Qingdao University of Science & Technology



青岛农业大学
QINGDAO AGRICULTURAL UNIVERSITY

QINGDAO AGRICULTURAL UNIVERSITY



Management System Certification & Patents

- SGS
- IATA
- DGM
- ISO9001, ISO14001 & ISO45001
- Oral toxicity testing
- Biodegradation testing
- Heavy metal detection
- 20+ Patents





Qualifications & Honorary Titles

- National high-tech enterprise
- Nutrient water-retaining agent expert workstation
- Specialized, Refinement, Differential & Innovation enterprise
- National technology-based SME
- Executive vice president unit of Qingdao Import and Export Enterprises Chamber of Commerce





Quality Management System of Products



24-HOUR CGTT AFTER-SALES SERVICE SYSTEM



Demand
Collection



Guidance
& Instruction



Usage
Tracking



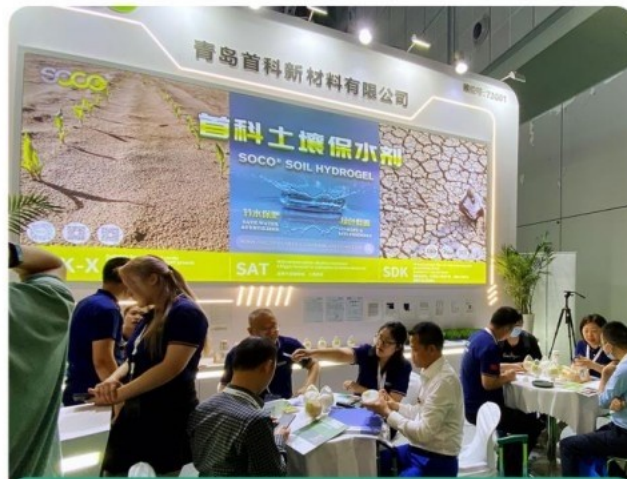
Technological
Support



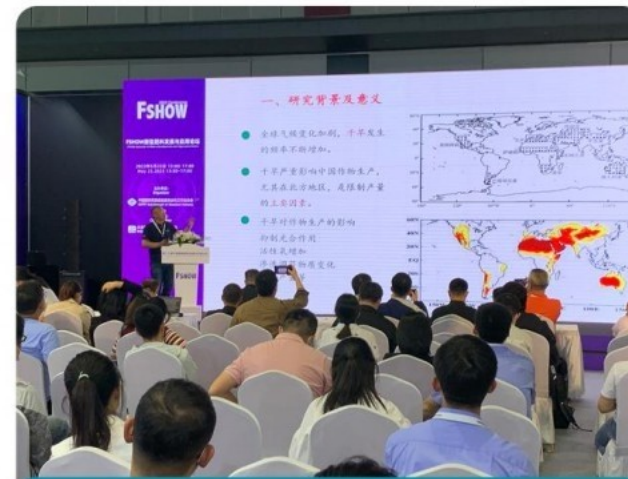
MARKETING



Online Promotion



Industrial Exhibitions



Product Launch



Online Promotion

 Google Ads

 Google SEO

 Alibaba.com

 1688

 in

 f

 YouTube

 TikTok

 抖音

 WhatsApp





 AliExpress

 W

 Agri
EXPO



INDUSTRIAL EXHIBITIONS





PRODUCT LAUNCH





SOCO® SOIL HYOROGEL

The solution for sustainable agricultural development

Drought

Soil Crusting

Water Shortage



Qingdao SOCO New Material Co.,Ltd.

The Driver for Agriculture Sustainable Development