RICE IS A SILICON LOVING CROP

How RLF Silica Plus can help improve quality and yield

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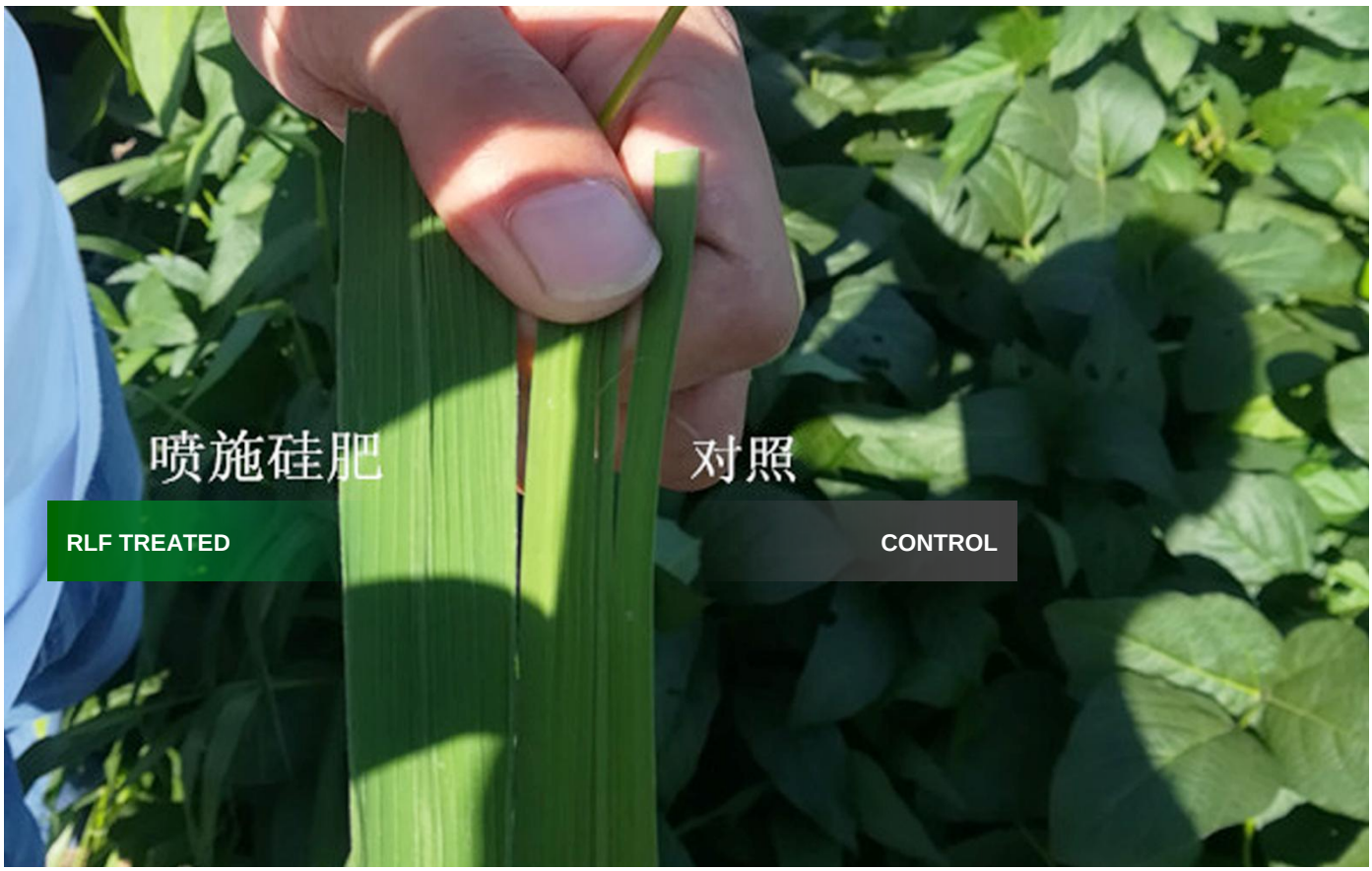
The Importance of Silicon to Rice Growth

October is the rice harvest season in China. The sun lights up the grains of rice and the pleasant smell of rice imbues the air.

Silicon is an essential element for the healthy growth of rice, as well as other crops. Rice particularly, is a crop that absorbs more silicon. The content of silicic acid in rice is between 5% - 20%, which is about 10 times more than that of nitrogen and about 20 times more than phosphorus. Silicon deficiency in rice leads to slender and weaker stems and lodging giving easy access for pests and diseases to infect the plants.



The lack of silicon results in decreased panicle numbers in the early stage of rice growth and decreased spikelet numbers in the later stage of rice growth. This therefore means that there is no guarantee for a high quality and high yielding rice crop unless balanced nutrition is available to the plant. Currently, the deficiency of silicon in paddy soils is a serious issue in China. And the soil silicon deficiency has become a major limiting factor for high and stable yield of rice, which growers should pay attention to.

The Results of the Trial of Silica Plus Foliar

The purpose of this specific evaluation trial was to verify the excellent performance of RLF foliar crop nutrition product **Silica Plus** on increasing both yield and quality of the rice crop. It also sought to gauge lodging resistance and whether improvement was noticed in susceptibility to disease and insect pest attack.

The average yield of the Super Hybrid Rice grown in the demonstration fields of Guangfu Town, Yongnian District, Handan City, Hebei Province, and cultivated by the team of Yuan Longping, an academic at the Chinese Academy of Engineering and 'father' of the Hybrid Rice in China, reached 1149.02 kg per mu on 15th October 2017, which exceeded the world rice yield record.

The RLF Team never stop pursuing the outcomes of high quality and high yield and love working side by side farmers in the countryside, especially on demonstration crops such as the Super Hybrid Rice.

In order to evaluate the results of RLF **Silica Plus** on rice, the sales manager in the region, Liu Shijian paid a visit to the demonstration field.

Test rice variety	Liaogeng 401
Test location	Dalianhua Village, Ciyutuo Town, Liaozhong County, Shenyang City, Liaoning Province
Test field farmer	Lu Baijun
Test site requirements	A flat, medium fertility, representative 2-3 mu (0.1-0.2 hectare) area of land as the demonstration field
Product used and application details	**First application** 3rd August 2017. Foliar spray with **Silica Plus** at 500 times dilution **Second application** 15th August 2017. Foliar spray the **Silica Plus** at 500 times dilution
Test results	**First** The effect was obvious after being treated with **Silica Plus**, with observations such as increased leaf thickness, the enhanced strength, deep green colour, the erectness of the plant, increased luminosity, mature rod and accelerated grain filling. All beneficial outcomes. **Second** Observations such as enhanced lodging resistance and increased resistance to disease were notable.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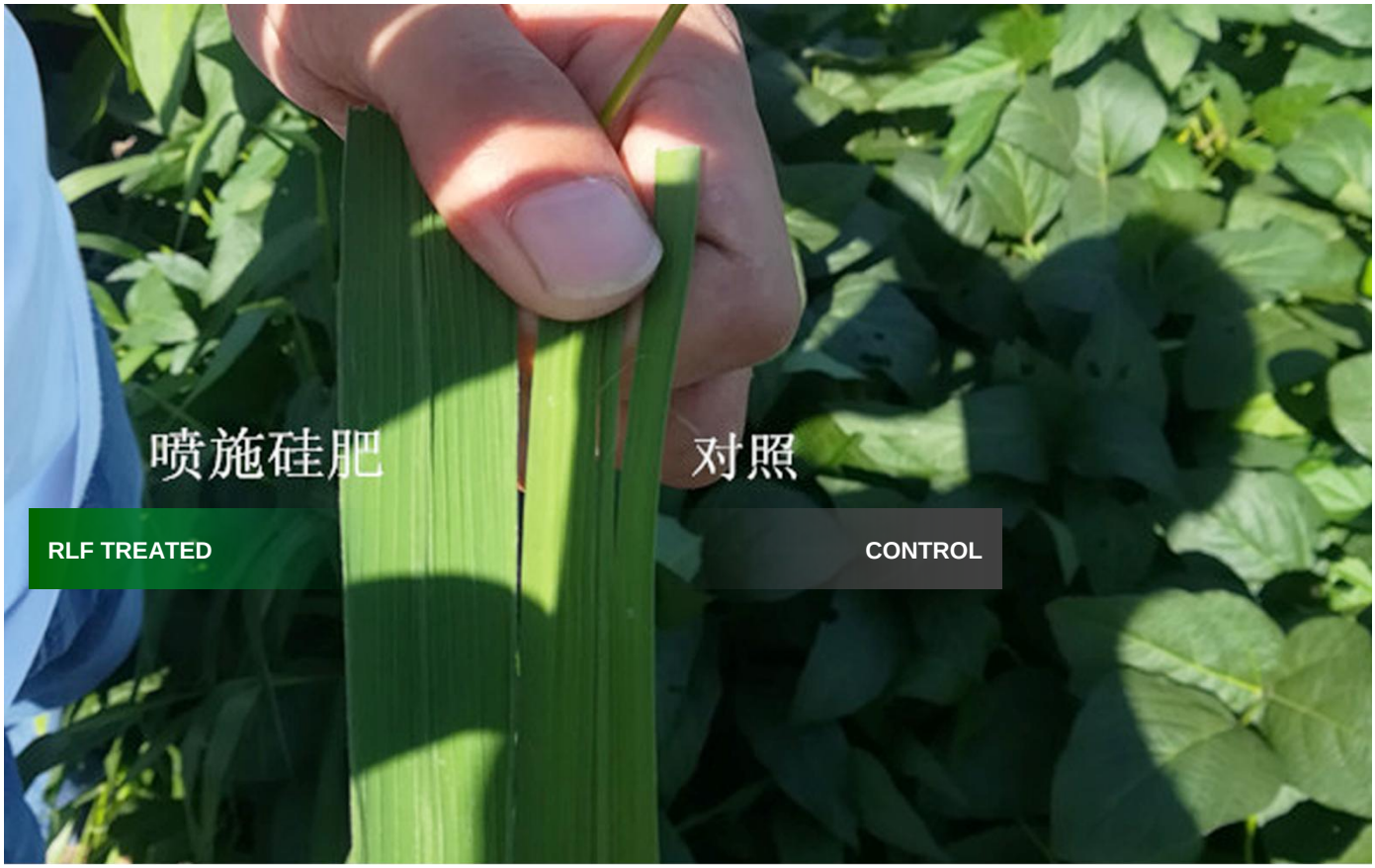
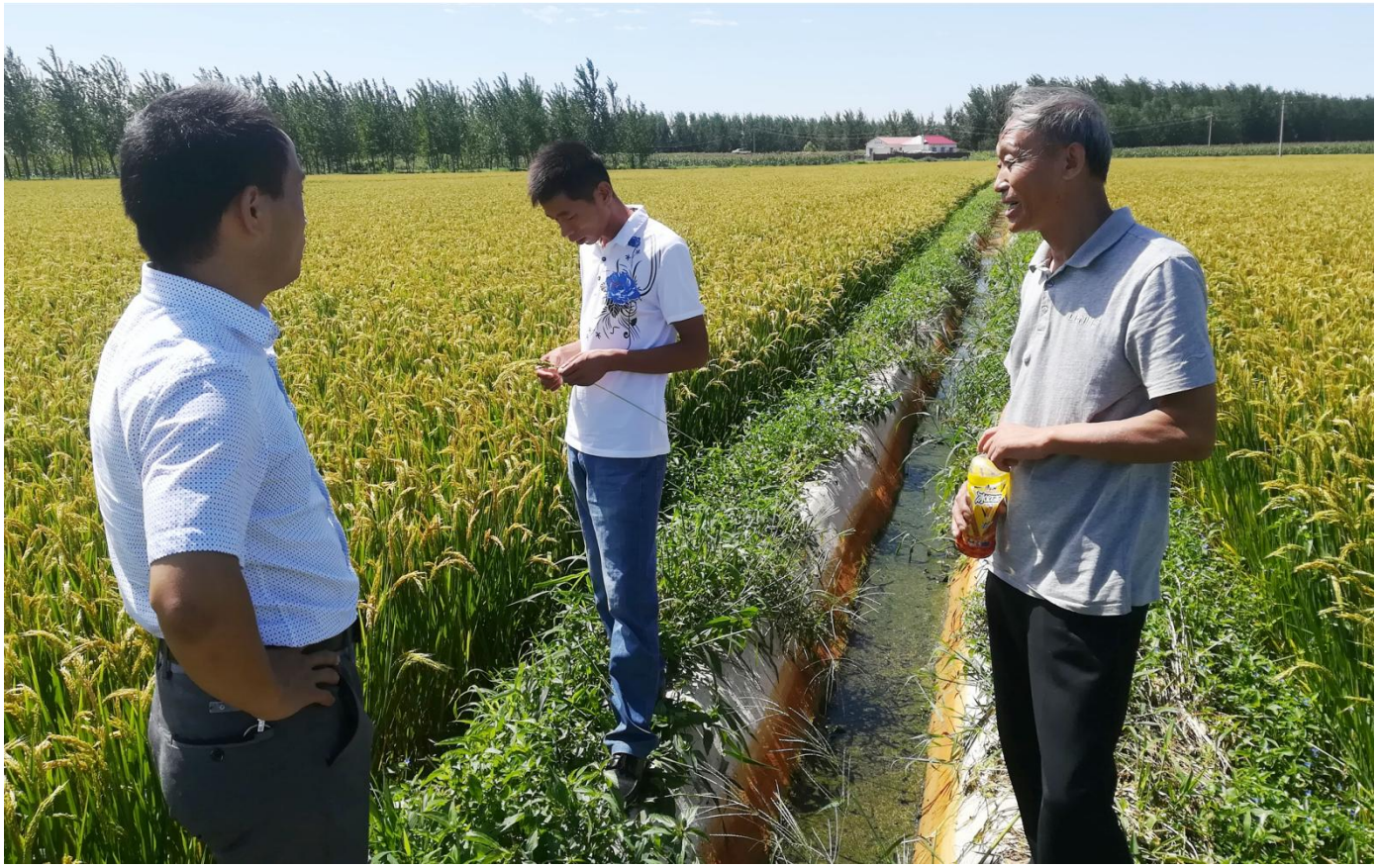
The comparison on grain plumpness

The comparison on leaf width





The RLF staff go deep into the field to check the test results

Summary

Rice is a silicon loving crop. It is known that silicon can improve photosynthesis, increase resistance to sheath blight and rice blast, and enhance yield and quality. By foliar spraying the rice crop with RLF **Silica Plus** at tillering stage, pre break stage and heading stage the quality and yield of the rice crop can be lifted.

RLF **Silica Plus** can be combined with crop protection chemicals which reduces the cost of rural labour not only because it saves time, but because it improves the control effects and produces excellent grain quality and yield.

Silica Plus Foliar fertiliser delivers high quality silicon to the plant through the leaf when a silicon plant disorder is recognised or established.

- ✓ It is a superior product using only the highest quality materials that are reliable and stable.
- ✓ It bypasses soil deficiency by applying the most efficient method of delivering the plant's immediate nutrition needs, which is through the leaf.
- ✓ It fixes plant nutrient deficiency as it reduces the need for the plant to access silicon from the soil, instead delivering them through the leaf.
- ✓ It improves leaf erectness and stem strength that aids the control of iron and manganese toxicity.
- ✓ It reduces lodging because of the improved cellular structure of the plant.
- ✓ It is easy to apply and is compatible with a wide range of crop protection chemicals.
- ✓ It handles environmental conditions better because it gives the plant more energy to deal with environmental stresses associated with inadequate rainfall, changing weather patterns, variations in soil, pests and other external conditions.