

Microbial growth biostimulant

# The alternative way for the fertilization of **rice**



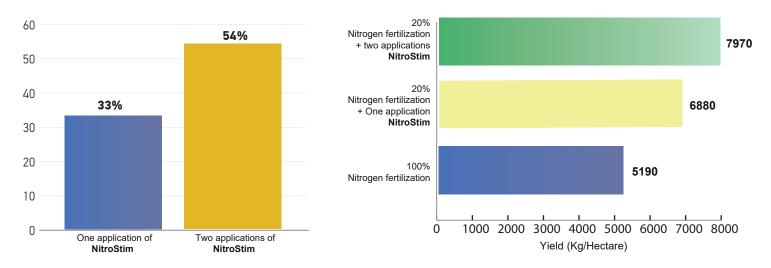
After a systematic scientific research by **HUMOFERT** in cooperation with the **Agricultural University of Athens**, we can now suggest an alternative fertilization way for cotton by **HUMOFERT**, based on the innovative biotechnology product **NitroStim**.

With just one foliar application of NitroStim at the stage of 15-20 cm the following benefits have been observed :

- Reduction of Nitrogen fertilization by 80%
- Yield increase by 33%
- Impressive weed reduction
- Minimization of the environmental footprint of the cultivation

With a second foliar application of **NitroStim** fifteen days after the first one, even better results were observed:

• Yield increase by 54%



The application of **NitroStim** along with just 20% of the total Nitrogen fertilization greatly increased the yield, in comparison with the control on which there was application of 100% Nitrogen fertilization without **NitroStim** 

The following results were observed after field trials on rice cultivation (Oryza sativa) done under the supervision of professors at the Agricultural University of Athens.

### LOCATION

Katochi Mesolongion, Aitoloakarnania **SPECIES** Rice (Oryza sativa) **YEAR** 2021-2022 **TREATMENTS** Control Application of the typical data

Control: Application of the typical dosage of Nitrogen fertilizers (100% N) along with chemical herbicides Applications:

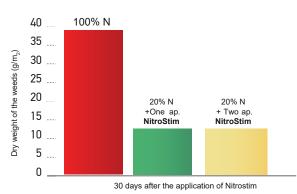
One application of the biostimulant NitroStim at a rate of 5L per Hectare, along with only 20% of the usual Nitrogen fertilization (20%N + Nitrostim) and chemical herbicides, when the plants had a height of approximately 15-20 cm.

Two applications of the biostimulant NitroStim along with 20% of the usual total dosage of Nitrogen (20%N + Nitrostim) along with chemical herbicide. The first application was done at a rate of 5L per Hectare, when plants were approximately 15-20 cm high. The second application was done with a dosage of 5L per Hectare, fifteen days after the first one.

#### Weed reduction

A great achievement was the weed control, which was a result of:

- The continuous and stable growth of the crop, due to NitroStim
- Reduced Nitrogen fertilization, which limits the growth of the weeds



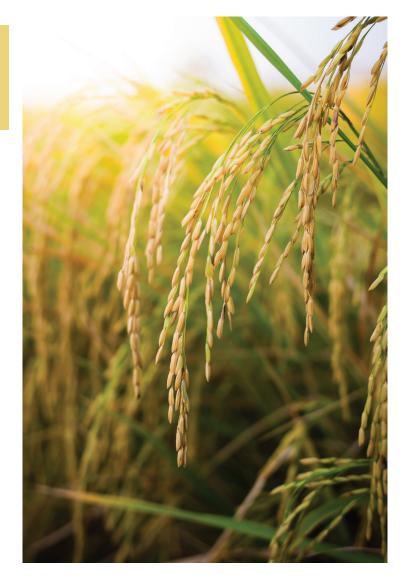
The measurements took place 30 days after the application of **NitroStim**. The reduction of weeds reached the impressive percentage of 79%, when

Nitrostim was applied.

## **APPLICATION METHOD:**

<u>First application</u>: Growth stage at 15 cm. Foliar spraying of **Nitrostim** at a rate of 5L per hectare

<u>Second application</u>: Foliar spraying of **Nitrostim** at a rate of 5L per hectare 15 days after the first application



The impressive increase of the yield is a result of the activity of the beneficial endophytic Nitrogen fixing bacteria contained in **NitroStim** which:

- Bind atmospheric Nitrogenin the leaves and transform it to an assimilable form
- Produce plant hormones
- Increase the nutrient uptake from the leaves

# NitroStim:

- Brings high yield with low cost
- · Limits the use of Nitrogen fertilizers
- Reduces weeds
- Contributes to the reduction of Nitrate pollution of the environment caused by the extensive application of Nitrogen fertilizers



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