

MICROP BG

INCREASE AVAILABLE NITROGEN AND IMPROVE SOIL

MICROP BG is the logical choice to replace part of the urea usage on flooded rice. Research has shown that blue-green algae produce significant increases in rice yields by supplying nitrogen in a natural, slow release form. MICROP BG's dormant blue-green algae cells are applied with aerial or ground spray equipment immediately following permanent flood, up to the 1/2 inch internode movement. Once Microp BG is applied, the tiny plants come out of dormancy and begin to grow rapidly. As the algae develop, they fix significant quantities of nitrogen, deposit valuable organic materials into the soil, and provide oxygen to the submerged rice roots.

BETTER NITROGEN MANAGEMENT

The integration of MICROP BG into modern rice production is very easy. MICROP BG provides a simple and economical method to establish an adequate population of blue-green algae in the flood water.

The blue-green algae growth and subsequent decomposition releases nitrogen stored in the algae cell .

This natural, time-release process supplies a steady stream of nutrient into the floodwater beginning about 10 days after MICROP BG application. By filling in the gaps between conventional nitrogen fertilizer application, MICROP BG can naturally increase crop yields. If the producer chooses to reduce urea usage with MICROP BG, environmental contamination by nitrates may be minimized.

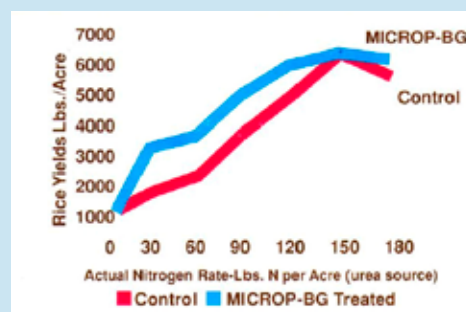
A NEW CONCEPT IN GREEN MANURES

MICROP BG also provides the traditional benefits of green manure crops. The intercropped microscopic plants add organic matter as they grow in the flood waters with the rice. After the rice is harvested, the added organic matter helps to better prepare the soil for the next crop.



Nitrogen-fixing blue-green algae provide a free input of N: they have other beneficial effects like auxinic (growth stimulating) effects on the rice plant, as well as antagonistic effects against some aquatic macrophytes. Their growth can be encouraged by inoculation.

P.A. Roger and I. Watanabe, Organic Matter and Rice (Los Banos, Philippines: International Rice Research Institute, 1982). pg. 163



Recent tests at the University of Arkansas' Rice Research and Extension Center in Stuttgart, Arkansas, are determining if MICROP-BG, a blue-green algae product, will supplement part of the nitrogen requirements of rice plants. After one year of testing, the Arkansas study revealed that rice receives 30 to 50 units nitrogen per acre from MICROP-BG.

"Nitrogen from Blue-Green Algae." Rice Farming, May 1989

MICROP BG

TECHNICAL DATA

PRODUCT PURPOSE: MICROP BG is composed of nitrogen fixing microalgae which serve as a biological source of nitrates in flooded rice fields. MICROP BG is grown as a companion crop that produces unmanipulated vegetative plant residues for soil and crop improvements.

PRODUCT DESCRIPTION: Cyanophyta (single-celled plants) in a dry mixture with a density of no less than 320 million living plant cells per gram.

GROWTH CYCLE

Seeded into the flooded field at the rate of one ounce per acre (70g/ha), with two applications per crop. The plants grow and colonize in the flooded rice field by cell division. MICROP BG reaches maturity (begins to produce available nitrogen) in about 15 days under average conditions and will continue to grow for up to 90 days if undisturbed.

APPLICATION TIME

First application, immediately following permanent flood of the rice field. The second application should be applied approximately 30 days after the first, up to the 1/2 inch internode movement.

APPLICATION METHOD

Mix dry product material in water and apply with any liquid spray equipment (aerial or ground).



HERBICIDES

Once applied in the flooded rice field MICROP BG will not be harmed by herbicide application.



ALGICIDES

Avoid use of algicides which may be active in the floodwater during the growth phase of MICROP BG (ask your chemical dealer about length of residual algicide activity).

TANK MIXING

Soil Technologies does not recommend that MICROP BG be mixed with other chemical products. The company has found, however, that MICROP BG cells remain viable when mixed with certain chemicals and fertilizers. Before attempting to tank mix, consult Soil Technologies technical staff.

SHELF LIFE

Expiration date is 2 years from the date of packaging.



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