



DECOMPOSE THE REMAINS, COMPOSE THE HUMUS

Microbiological preparation for
decomposition of harvest remains.

**BIO
PLUG**



ACCELERATED AND HIGHER QUALITY DECOMPOSITION OF HARVEST REMAINS



Biofor System has years-long experience of field work on land recovery in Serbia and abroad. Microbiological preparation Bioplug has been derived from the process of bioremediation – restoration of the original fertility of soil through the activity of microorganisms. Scientific principles have been tested in practice by working on deteriorated surface trenches, petroleum pipelines and oily soil.

Bioplug is a powerful biological preparation which contains microorganisms which perform the decomposition and mineralization of harvest remains. Microorganisms from Bioplug originate from soil and are "in charge of" organic matter decomposition.



Microbiological preparation BIOPLUG contains:

Azotobacter sp. more than 10^8 /ml of fertilizer –
nitrogen fixation

Bacillus sp. more than 10^7 /ml of fertilizer –
mobilization of phosphorus, decomposition
of organic matter

Pseudomonas sp. more than 10^6 /ml of fertilizer –
transformation of poorly degradable
organic matter

Trichoderma sp. – bio-fungicidal effect,
decomposition of cellulose

Bioplug contains soil bacteria and fungus for acceleration of decomposition of organic matter, remains of pesticides. It improves soil conditions. 80% of harvest remains in the soil are completely decomposed, after the application of Bioplug. It leads to an increase of humus content in the soil and more food for growing plants due to accelerated mineralization.

It removes the negative effect of pesticides in corn crops.



Dejan Indić, farmer, Serbia:

“It really decomposes the remains, builds the humus.”



Spraying of harvest remains
with 200l of water/ha.



Ploughing or disking the treated
harvest remains.



Fertile soil with higher humus
content.

BIOPLUG – scientific answer to a lack of manure.

***MANDATORY** for soil with low humus content.

Application of Bioplug affects the improvement of physical properties of soil, provides better structure and **easier cultivation of soil**.

Treatment of harvest remains with Bioplug is a **replacement for manure**. Manure contains organic remains and a high number of microorganisms which is achieved through a combination of **harvest remains and Bioplug**.

After harvesting wheat, 5-7t of straw/ha remain in the field. Activating of these amounts of nutrients by adding 5l/ha of Bioplug is an efficient way to secure nutrition for the crops.

After removing corn, 10-12t remain in the field per hectare. Mineralization of these remains provides about 12kg of pure nitrogen which is the same amount of nitrogen from 260kg of UREA.

For principle sake, we give back to the soil what was taken out through yields.



SCIENCE SAYS: “If harvest remains undergo winter ploughing then they will be useful only in terms of humidity reserves, but stubble will not be humified because of the lack of favourable ecological conditions (primarily temperature). The next crops go into the field where the process of humification has not been performed and this process takes place in spring and summer which leads to consumption of nitrogen by microorganisms and the process of mineralization and creation of plant assimilative does not take place and this affects the development of the crops.

Ploughing of harvest remains treated with the Bioplug preparation coordinates the humification process with the needs of the plants. Thermal bacteria from Bioplug have the ability to warm the soil and create the

conditions for the process of humification to take place. Apart from this, soil humidity is preserved, aeration of soil and plant nutrition are improved which results in maximizing of yields and positive effects on the soil fertility.”

Prof Vera Raičević, PhD, - Head of Department for Microbiology of Soil, Air and Water. Agricultural Faculty of Zemun.

The C:N ratio is a condition for multiplication of microorganisms which perform the decomposition of harvest remains – Bioplug contains a huge number of soil bacteria for decomposition and free bacteria nitrogen fixators which enrich the soil with nitrogen from the air. In this way **UREA is not needed** as a source of nitrogen because the nitrogen from air is used.

Spraying after harvest:

BIOPLUG 5 litres + 200 litres of water for 1 ha.

It is recommended to plough or disk the decomposed harvest remains immediately after the spraying or the next day.

BIOPLUG 5l/ha



Packaging of 10l and 1l.

Bane Ralić farmer, Serbia :

“Soil is amazingly loose, when you step on it, your foot goes in, which is different than during previous years when I did not use Bioplug.”

Rade Zjača farmer, Serbia, planted clover in the autumn, he treated the used manure on barley stubble with Bioplug:

“Definitely a winning combination, I took off 1350 big bales of clover from 5 acres in the first spring swathe.”

Steva Cukić farmer, Serbia, treated stubble with Bioplug: “In spring when I went in the field, the soil was incredibly loose and easy for cultivation. My foot would go in up to my ankles. I planted corn

and reduced fertilization with artificial fertilizers by half. Corn was sprayed with Biofor Active prior to shooting and it looks phenomenal.”

Dragan Jovanov farmer, Serbia, treated corn and stubble with Bioplug:

“In the fields where I treated the harvest remains with Bioplug, earthworms appeared. I haven’t seen earthworms in fields since the digging stopped.”

Istvan Korodi farmer, Serbia, treated his corn remains with Bioplug last autumn:

“It is a lot easier to work, machine does not choke” – Dragoslav Malenov farmer, Serbia, treated corn remains with Bioplug: “I sprayed the chopped corn remains and mixed them with the soil. The field is amazingly loose, like soil for flowers.”

Rankov Stevan farmer, Serbia, treated his corn remains with Bioplug:

“I never had better barley.”

dr Vera Raičević redovan profesor
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