

TECHNOLOGY AHEAD OF ITS TIME: SUNFLOWER

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Опозориран дълер за Амалгерол Есенс и Амалгерол за България, Румъния и Молдова

www.mediplusr.com

- Interview with Venelin Delgyanski, agricultural producer and representative of the company “GRAND AGRO” Ltd.
- Trial from Maize Research Institute – Kneja

The combination of the biostimulant **AMALGEROL ESSENCE** and the **nitrogen**-fixing bacteria of Medi+R delivers revolutionary results in agriculture and brings you benefits in 4 areas related to the **reduction of production costs**:

1) Higher and better-quality yield

The new technology stimulates root growth and nutrient uptake, providing higher and better-quality yields.

2) Compensates up to 1/3 active substance nitrogen per decare from the full nitrogen fertilization rate

Save on nitrogen fertilizers and reduce the negative environmental impacts they cause.

3) Reduces fuel consumption for soil tillage

Improve soil structure and reduce fuel costs by up to 300–400 ml/da.

4) CAP subsidies

The innovative technology of Medi+R meets the requirements of modern agriculture and is part of the support for farmers through subsidies under the support scheme in line with the Common Agricultural Policy and the European Green Deal. Both products are approved and are included in the electronic register of the Bulgarian Food Safety Agency (BFSA) under the **Ecoscheme** for preserving and restoring soil potential – promoting green manuring and organic fertilization under the CAP.



Carbon farming is one of the new trends in the sector with two main benefits: reducing harmful emissions and creating a new source of income for agricultural producers. They can obtain certificates that will secure them future revenues. Global trends encompass the reduction of carbon emissions and the achievement of carbon neutrality

MEDI+R TECHNOLOGY

For every agricultural producer, it is important what the real impact on their activity is, because it is necessary to achieve the objectives without risking the harvest. The Medi+R team offers the right solution through the following technology:

DOUBLE APPLICATION OF **AMALGEROL ESSENCE** AND

SINGLE APPLICATION OF **NITROGEN**-FIXING BACTERIA OF MEDI+R IN SUNFLOWER

Application of the technology provides the following benefits:

- increased microbial activity in the soil and mycorrhiza;
- higher and better-quality yield;
- coping with various types of stress;
- promotion of plant growth and improvement of nutrient use efficiency.

Nitrogen-fixing bacteria of Medi+R are authorized for use in **organic farming** and **DO NOT** contain genetically modified or pathogenic organisms. The product is applied by spraying on the leaf surface of crops. The Medi+R team recommends its use in the early stages of vegetative development, as it stimulates atmospheric nitrogen fixation in the following crops: cereals, sunflower, fruit crops, vineyards, alfalfa, vegetable crops, nut-bearing fruit species, citrus. **Nitrogen**-fixing bacteria of Medi+R allow for:

- fixation of atmospheric nitrogen;
- reduction of the input of nitrogen mineral fertilizers into the soil;
- improvement in the quality and quantity of the harvest.

APPLICATION OF MEDI+R TECHNOLOGY IN SUNFLOWER

The application of the combination of double application of **AMALGEROL ESSENCE** and single application of **nitrogen**-fixing bacteria of Medi+R is not only an **investment** with guaranteed income and higher quality yield, but also a **cost optimization**. This combination is reliable and proven effective in wheat, oilseed rape, sunflower and maize.

The Medi+R team recommends the following application scheme to agricultural producers for **AMALGEROL ESSENCE** and **nitrogen**-fixing bacteria of Medi+R in sunflower (regardless of whether conventional, Express or

Clearfield technology is used):



- Standard pre-sowing fertilization rate, after which **no** additional nitrogen is applied during the vegetation of the crop;
- **1st** treatment at 4th–6th leaf stage: **AMALGEROL ESSENCE** 200 ml/da + **nitrogen** -fixing bacteria of **Medi+R** 5 g/da;
- **2nd** treatment at bud formation stage: **AMALGEROL ESSENCE** 200 ml/da.

The technology of Medi+R not only reduces the amount of nitrogen fertilizers in sunflower, but also ensures higher and better-quality yield. As a result of the treatment, a **significant increase in the root system and leaf mass of the plants is observed**. There is more efficient uptake of **water** and nutrients by the plant roots, **as well as an increase in the photosynthetic surface**, which has a **favourable** effect on the development and growth of sunflower plants. The plants have a **visibly improved habitus** and differ from untreated plants. With regard to the growth stage, the plants are more advanced and taller. The quality of the harvested crop is better due to the increased oil content by **3–4%**.

THE TECHNOLOGY SAVES UP TO 1/3 KG NITROGEN ACTIVE SUBSTANCE PER DECARE

MAIZE RESEARCH INSTITUTE – KNEJA

In 2023, the Maize Research Institute – Kneja once again conducted demo trials with the products of Medi+R in sunflower under non-irrigated conditions and demonstrated the effectiveness of the application of **AMALGEROL ESSENCE** and **nitrogen**-fixing bacteria of Medi+R. The application schemes in variants 1 and 2 are presented in the following table, as well as the results obtained:

Вариант	Схема на приложение	Добив кг/дка	Добив кг/дка в %
1	Контрола – Стандартна технология	416	100%
	Азотно торене с 10 кг активно вещество азот на дка		
2	Азотно торене с 3,3 кг активно вещество азот на дка	419,2	+0,8 %
	1^{во} третиране във фаза 4^{ти} - 6^{ти} лист: АМАЛГЕРОЛ ЕСЕНС 200 мл/дка + азот фиксиращи бактерии на Меди+Р 5 г/дка 2^{ро} третиране във фаза бутонизация: АМАЛГЕРОЛ ЕСЕНС 200 мл/дка		

In variant 2, representing the Medi+R technology, **the second nitrogen fertilization was not carried out**. Nevertheless, vigorous and taller dark green plants are observed, with some plants even outpacing in their development the plants from the control. Assoc. Prof. Emil Vasilev, PhD, demonstrated a more developed root system and mycorrhiza, which affects the development and growth of the plants as a whole, and summarizes that through the Medi+R technology agricultural producers **save one nitrogen fertilization**, which has a major economic effect:

- **WITHOUT** direct cost for nitrogen fertilizer;
- **WITHOUT** costs for loading and transport;
- **WITHOUT** depreciation of agricultural machinery;

- **WITHOUT** application and fuel costs.



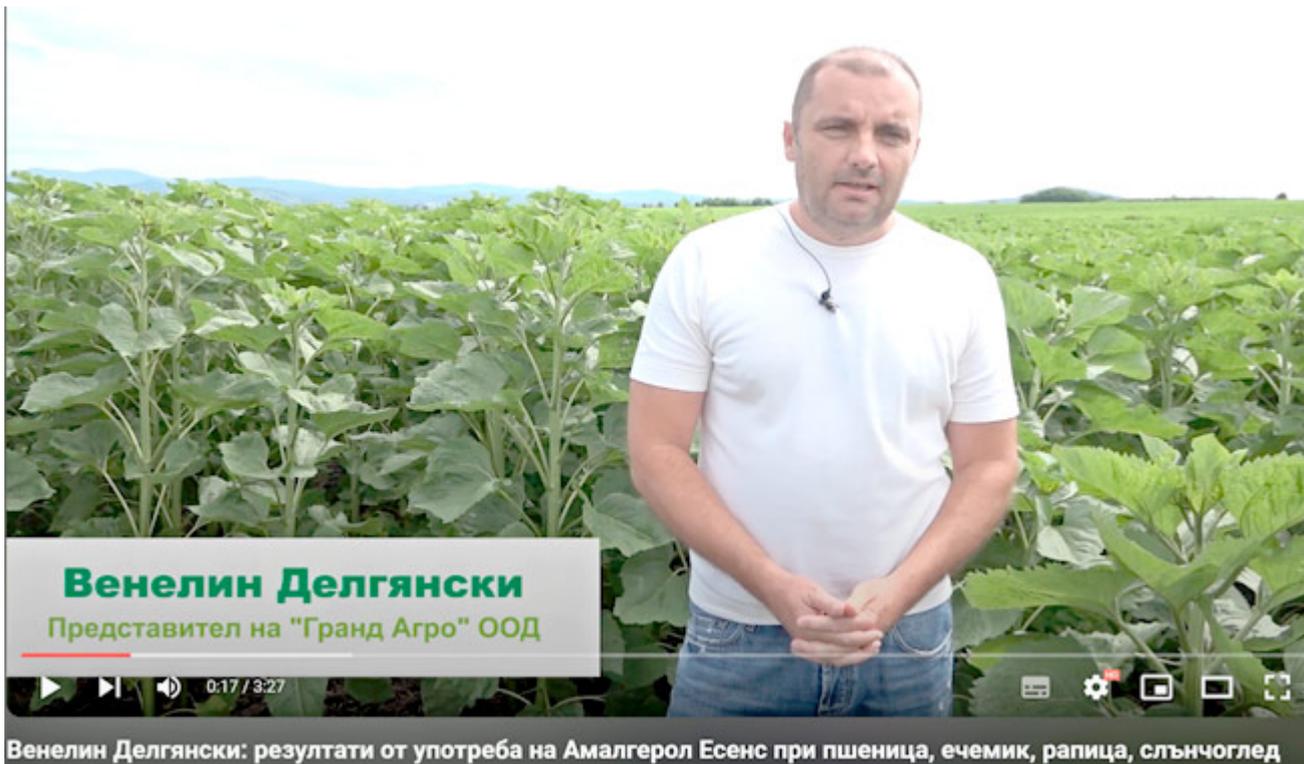
Assoc. Prof. Emil Vasilev, PhD, recommends: “The Medi+R technology is a very good solution and benefit. Producers should turn to these products in order to reduce the production cost of their output.” The full interview with Assoc. Prof. Emil Vasilev, PhD, from the Maize Research Institute – Kneja can be found at the following link:

<https://www.youtube.com/watch?v=bXSY2kadxeo>

SHARED PRACTICAL EXPERIENCE FROM

VENELIN DELGYANSKI: SUNFLOWER

The agricultural producer and representative of the company “GRAND AGRO” Ltd., Venelin Delgyanski, shares his experience with the products of Medi+R. The farmer from the region of the towns of Rakovski and Brezovo has been working with the products of Medi+R for 7–8 years, and the company “GRAND AGRO” Ltd. cultivates about 65,000 da of land. The long-term use is due to the proven beneficial effect on crops such as wheat, barley, oilseed rape and sunflower.



Venelin Delgyanski summarizes the following benefits from the application of **AMALGEROL ESSENCE**:

- Overcoming various types of stress, especially after herbicide spraying in spring crops.
- Better tolerance to drought and other adverse climatic conditions such as extreme temperatures, droughts, hailstorms.
- Good effect on plants: within 3–4 days, the habitus of the plants visibly changes.
- Higher quality production – for example, in sunflower, the oil content is higher.

To the question “Why do you use **AMALGEROL ESSENCE**?” the farmer answers as follows: “Because we have seen what beneficial effect it has on the crops we grow, namely wheat, barley, oilseed rape and sunflower.”

Venelin Delgyanski notes that the use of **AMALGEROL ESSENCE** in sunflower results in a higher quality product in terms of oil content and other indicators: “The higher the quality of the product, the better price you can achieve.” The full interview with Venelin Delgyanski can be found at the following link:

<https://www.youtube.com/watch?v=a2R5GkBEg74>

The use of Medi+R technology is becoming a key practice for obtaining environmentally friendly plant production under conditions of climate change and in the context of the “**Green Deal**”. The technology, based on double treatment with **AMALGEROL ESSENCE** and a single treatment with **nitrogen**-fixing bacteria of Medi+R, is not only effective but is becoming a secure investment in your yield and reduces production costs.

Previous materials:

“TECHNOLOGY AHEAD OF ITS TIME: WHEAT”

<https://www.plant-protection.com/article/1931>

“TECHNOLOGY AHEAD OF ITS TIME: OILSEED RAPE”

<https://www.plant-protection.com/article/1952>

Upcoming material: **“TECHNOLOGY AHEAD OF ITS TIME: MAIZE”**



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