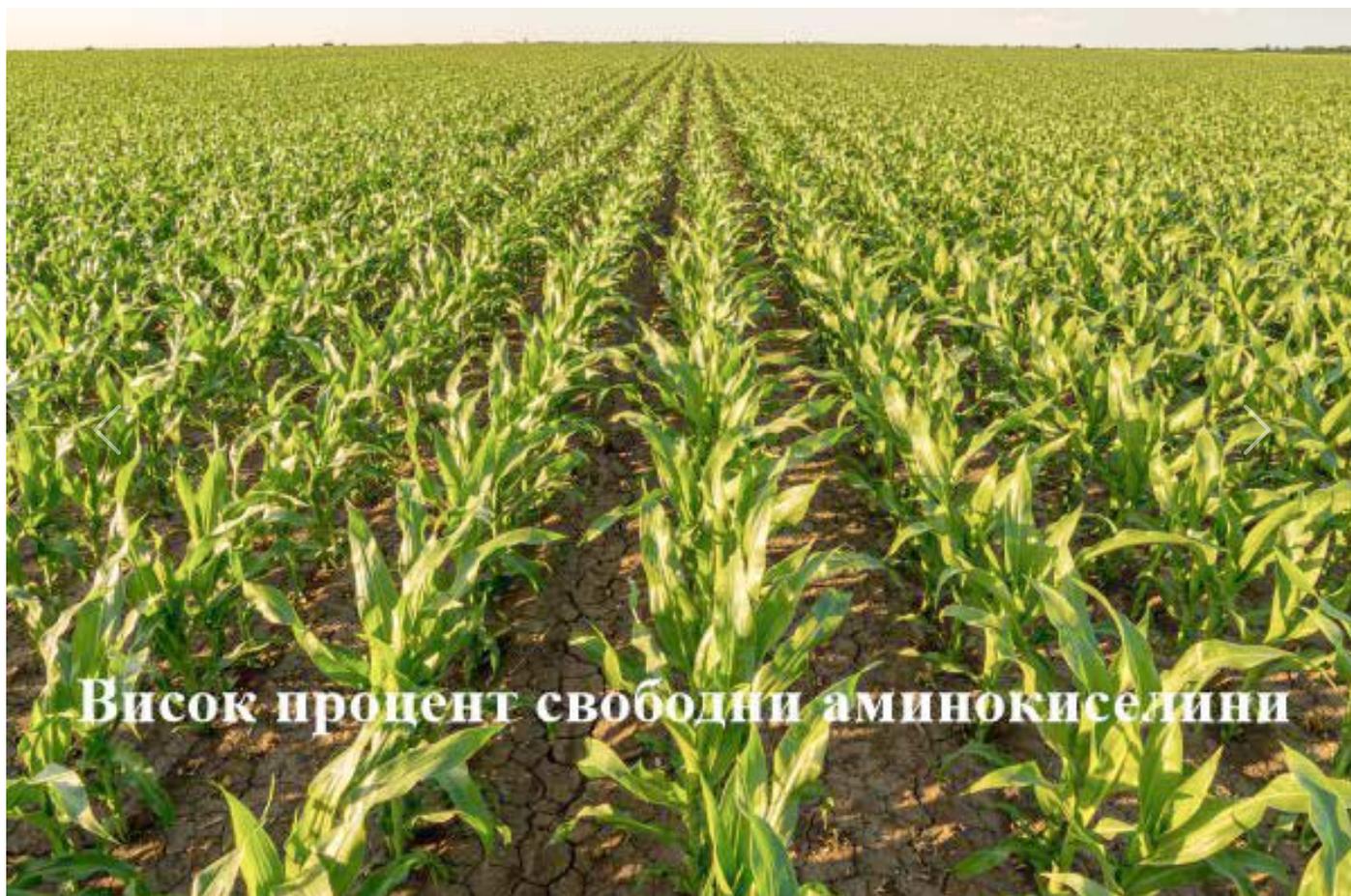


Нувола™ AMIN – New biostimulant from FMC with a high concentration of free amino acids

Author(s): ФМС АГРО БЪЛГАРИЯ

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In recent years, foliar application of micronutrients and biostimulants has become an integral part of crop cultivation technology, as it undoubtedly leads to a visible increase in yields and the quality of agricultural production. Therefore, in response to the demand for opportunities to enhance plant tolerance to abiotic and biotic stress factors, FMC offers on the market Nuvola™ AMIN – a new liquid organic fertilizer based on amino acids for foliar application and drip irrigation.

Under stress conditions, the application of high-quality amino acids that can be directly and rapidly absorbed by the plant is of key importance. The direct and rapid use of essential amino acids allows crops to restore photosynthetic activity, increase protein synthesis and water balance, as well as to delay senescence and the

reduction of abscisic acid content, which is involved in a number of key physiological processes responsible for the plant's response to stressful situations such as cold, drought, etc.

Nuvola™ AMIN is a hydrolysate of animal proteins with a high percentage of free amino acids, which makes it ideal for use as a biostimulant.

The demand of plants for amino acids increases throughout the entire development cycle. They play an important role in various physiological processes, such as the nutritional function during germination (the embryo consumes amino acids from the proteins stored in the endosperm), protein synthesis (enzymes, proteins associated with cell membranes, etc.), formation of phytohormones (auxins, cytokinins, ethylene, porphyrins, etc.) and regulation of the water balance of plants under stress conditions.

Under stress conditions, the application of high-quality amino acids that can be directly absorbed and used by the plant also protects it from expending excessive energy to overcome them.

Thanks to the rich content of free amino acids and nitrogen in its composition, Nuvola™ AMIN reduces the effect of stress and shock caused by adverse weather conditions (frost, drought and hail) and pesticides. It facilitates the regeneration of damaged tissues, stimulates acquired immunity by increasing plant resistance and enhances yield and size, grading and quality of the produce.

Nuvola™ AMIN contains the extremely important amino acid **proline**, which acts as a stabilizer of cell membranes and proteins, induces genes related to osmotic stress and maintains the process of photosynthesis under adverse conditions. The amino acid **alanine** in the composition of Nuvola™ AMIN supports the process of photosynthesis and chlorophyll formation. The application of this amino acid stimulates the formation of green biomass and increases metabolic activity. **Glutamic acid**, in turn, represents a natural nitrogen reserve in the plant and can be converted into other amino acids. It affects resistance mechanisms and facilitates the uptake of other amino acids. It improves the flowering process by influencing the elongation of the pollen tube. Another amino acid is **glycine**, thanks to which the uptake of nutrients is improved. It acts by stimulating the processes of flowering and pollination, which makes it suitable for use in the period before flowering. In addition, it stimulates the formation and development of new shoots.

In this way, Nuvola™ AMIN becomes an extremely effective tool in the hands of every farmer for better and more complete plant nutrition, which also leads to an improvement in yield quality.