The plant aid “bio-algeen S90 Plus 2” in potato cultivation

In the coming years, agriculture worldwide will need to undergo significant changes in order to meet the food demands of a continuously growing global population. It is essential to develop and apply innovative methods that are climate- and environmentally friendly and conserve natural resources. In recent years, increasing attention has been given to biological agents that support these goals by respecting natural processes in plants and soil.

Over 40 years ago, the company "Schulze und Hermsen GmbH" in Lower Saxony developed a product from the brown seaweed *Ascophyllum nodosum* that was used to purify wastewater from the sugar industry in a purely biological and natural way. Over time, additional products were developed and widely used in both - plant and animal production.

bio-algeen S90 Plus 2 is a liquid plant aid that may be used conventional and organic farming. The natural ingredients contains—particularly polyuronic acid—trigger reactions in plants and soil that promote optimal plant growth and improve soil quality.

As early as 1994, Dr. Lung at the “Institute of Phytomedicine at the University of Hohenheim” conducted trials with cereals and sugar beets. These demonstrated a significant increase in wheat yields, primarily due to a marked increase in root mass. Additionally, there was an increase in parasitization of eggs and larvae within the cysts of beet nematodes, leading to a 16% increase in sugar beet yield.

Consequently, trials conducted with potatoes by “agro-nord Kürzinger GbR” in Groß Lüsewitz to examine the effectiveness of this preparation were a logical continuation of this scientific research. The results of these trials, conducted over six years, clearly demonstrate the positive and notable impact on yield.

Multi-year potato trials by „agro-nord Kürzinger GbR“ with the plant aid bio-algeen S90 Plus 2

Conducted from 2017 to 2022 with various application timings and dosages

Variety: Adretta

Variant	2017	2018	2019	2020	2021	2022	Ø
Control	357.2	270.6	674.4	911.1	369.5	331.4	485.7
2 l/ha at BBCH 10 and BBCH 20	388.2	291.0	699.9	993.2	405.8	376.8	525.8
1 l/ha at BBCH 10, 20, and 30	364.7	282.2	709.3	1009.5	418.8	370.8	536.0
2 l/ha at BBCH 10 and 1 l/ha at BBCH 20, 30, and 40 (standard)	**377.7**	**292.2**	**709.4**	**1093.0**	**427.6**	**386.0**	**547.6**

The difference between the control and the standard variant amounts to **62 dt/ha**.
Given current and likely future market conditions, a producer price of approximately **10–15 €/dt** can be assumed.

This could result in additional revenues of 619–928 €/ha.