

Report

Testing of the use of the preparation “Saver+”
in combination with reduced pesticide rates
for corn protection.

1. Distinctive names of the tested products:

Saver+"; "Elumis".

2. Registrant:

"Elumis" – LLC "Syngenta";

"Saver+" – registration not required.

3. Manufacturer:

"Elumis" – LLC "Syngenta";

"Saver+" – JSC "NPO Bioteka".

4. Objective of the Trials:

Comparison of the effectiveness of using the full (intra-farm) application rate (Control) of a selective herbicide for corn protection versus a reduced application rate (33% less than the Control) with the addition of the preparation "Saver+".

5. Product Characteristics:

"Elumis" – contains mesotrione 75 g/L + nicosulfuron 30 g/L

A two-component herbicide for the control of perennial, annual grasses and broadleaf weeds in corn crops during the post-emergence period.

"Saver+" – contains a composition of cationic surfactants, nonionic surfactants, salts of poly-N,N-dialkylcarboxylic acids – an adjuvant to increase the effectiveness of pesticide use in tank mixtures.

6. Application Scheme:

Control. Systemic herbicide at full rate:

"Elumis" – 1.5 L/ha

Experiment.

Composition of a systemic herbicide with a 33% reduced application rate compared to the Control, with the addition of "Saver+":

"Elumis" – 1 L/ha

"Saver+" – 0.2 L/ha

7. Test period:

8. Test location: Russia, Kursk Region, LLC "Greinrus".

9. Crop: Corn.

10. Brief description of the experiment:

In the corn fields, there was a high prevalence of weed vegetation: lambsquarters (Chenopodium), pigweed (Amaranthus), rough cocklebur (Xanthium strumarium), and grassy weeds.

The standard herbicide application rate was determined by the agronomist on the farm. After inspecting the fields and due to the spread of weeds, the herbicide rate was reduced by 33% from the control. Saver+ was added at the minimum application rate of 0.2 L/ha.

Application Technology and Procedure for Preparing the Working Solution

The crop was treated with a solution of the selective herbicide Elumis for corn protection at a reduced application rate, according to the experimental scheme with the addition of the preparation Saver+.

The preparation Saver+ was added immediately before treatment (after checking for compatibility). The sprayer tank was filled with water, the herbicide was added at the calculated rates for the treated area, then Saver+ was added, and the tank was topped up with water to the required volume. The solution was thoroughly mixed and the treatment was carried out.

Test Results:

At the time of inspection after the treatments, the test plot with Saver+ was more heavily infested with weeds than the Control with the full rate of Elumis.

Control. Fig. 1

Elumis: 1.5 L/ha

Yield: 116.5 c/ha (centners per hectare)



Fig. 1

Experiment. Fig. 2

Elumis: 1 L/ha

Saver+: 0.2 L/ha

Yield: 125.1 c/ha (centners per hectare)



Fig. 2

Due to the reduction of herbicide stress on the test plot, corn with increased protein content was obtained. Test: 8.2 compared to Control: 8 and lower moisture content Test: 15.4 compared to Control: 16.1.

Data on corn yield and quality for Test/Control are presented in Table 1.

Table 1.

Trial / Control	Yield (t/ha)	Protein (%)	Moisture (%)	Trash (%)
Control (Elumis only)	116.5	8	16.1	0.4
Trial with Saver+	125.1	8.2	15.4	0.2

Cost of Herbicide Protection per 1 ha (RUB):

Control : RUB 1,950

With Saver+ : RUB 1,520

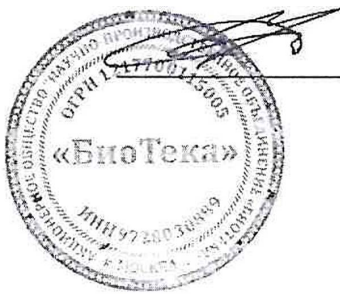
Application of the “Saver+” preparation ensured a cost reduction of 430 RUB/ha or 22%.

Conclusions:

The conducted field trials showed:

1. **Reduction of herbicide stress** for corn, which resulted in higher ear formation in the experimental plot with **Saver+**, positively affecting protein content and yield.
2. **Herbicide protection costs per 1 ha** were reduced **by 22%**, from RUB 1,950 in the control to RUB 1,520 with **Saver+**.

General Director
JSC "NPO Bioteka"



Head of R&D Department
GC "Greinrus"

