## Information about the results of using the LEANUM in farms in Ukraine (2021-2022)

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crop	company	conditions	researcher	method	result (in compari son with the control)
Winter wheat	Ecoprod LLC, Donetsk reg.	Region with low moisture (about 300 mm per year) South-Eastern Ukraine, 2020	The experiment was controlled and monitored by the chief agronomist of the agricultural holding	Spraying crops during the growing season in the BBCH 32 phase (end of tillering) with the drug at a rate of 1.5 l/ha in several fields with different varieties.	Informati on is below
Spring barley	Farm "Zadorozhn y" Sumy reg.	Sumy region, North-Eastern Ukraine, 2020	The experiment was controlled and monitored by the owner of the farm.	Treatment of seeds before sowing with a preparation rate of 2 1/t of two varieties of spring barley, different rates of seed sowing (250 kg/ha and 180 kg/ha)	Informati on is below
Corn	Farm "Zadorozhn y" Sumy reg.	Sumy region, North-Eastern Ukraine, 2020	The experiment was controlled by the owner and monitored by the owner of the farm together with a specialist from Agrii Ukraine.	Spraying crops with the drug at a rate of 1.5 l/ha in a tank mixture with Zinc EDTA microfertilizer (rate 0.5 l/ha, zinc content 160 g/l) in the phase of 5- 6 leaves of the crop.	Informati on is below
Soy- beans	LLC «Karlovsky LOS», Poltava reg.	Temperate region, Central Ukraine, 2020	The experiment was controlled by the owner of the farm and monitored by the owner of the farm together with a specialist from Agrii Ukraine.	Treatment of soybean seeds 10 days before sowing with the drug at a rate of 2.0 l/ha instead of using a special inoculant. The plot with seed treatment with inoculant was used as a control.	Informati on is below

#### **Report of results:**

### 1. Winter wheat

- the root system is better developed;

- death of the lower tier of leaves later;
- wider flag leaf and larger ear;

- increase in yield 0.4-0.6 t/ha with a yield of the control part of the field of 3,6 t/ha.

## 2. Spring barley

Vegetation observations:

- Significant difference in the development of seedlings (sprouts appeared earlier, a developed root system, optimal timing of development phases);

- In the heading-ripening phase, less dying off of the lower tier of leaves was noted; the flag and sub-flag leaves retain their green color longer than the control areas.

Harvest results:

The spring barley variety with a seeding rate of 250 kg/ha gave an increase of + 0.7 t/ha (12.5%) with a yield of the control part of the field of 5.6 t/ha. The spring barley variety with a seeding rate of 180 kg/ha gave an increase of 1.29 t/ha (24.6%) with a yield of the control part of the field of 5.23 t/ha.

# 3. Corn (farm nutrition system using humic fertilizers and EDTA zinc):

During harvesting, a difference was noticed in the number of rows of corn cobs; the tops of the corn cobs are made of grain.

When harvesting the crop and recalculating the humidity at 14%, the increase in yield from the use of the drug was 0.75 t/ha (8.5%) with the yield of the control part of the field being 8.86 t/ha.

## 4. Soybeans

- Plants had a more branched root system, on which smaller nodules were formed at the periphery of the root system;

- Plants had a greater number of lateral branches (accordingly, a greater number of beans);

- Plants retained green leaves 1-1.5 weeks longer than control;

- The yield from the plot with seed treatment with the drug was 2.3 t/ha, the control part of the field - the yield was 1.9 t/ha - the yield increase was 0.4 t/ha (21%).