

2017

ecoorganic.

RESULTS

of application of fertilizers for foliar nutrition





5

Seed treatment



9

Winter wheat



17

Corn



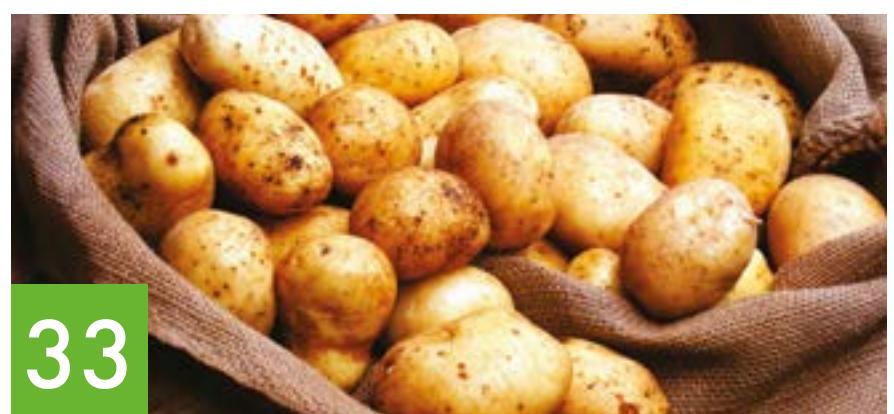
23

Sunflower



29

Soy



33

Potato

Dear partners!

Company "ECOORGANIC" is a national manufacturer of highly – effective fertilizers for foliar nutrition of plants. All products of our company meet the world requirements for the newest systems of foliar nutrition.

Fertilizers of the lines «Ecoline» and «GROS» are made on high-tech equipment using raw materials of the leading world companies.

In this catalogue, we present the application results of the products for the non-root nutrition in 2017 from «ECOORGANIC» LLC.

Scientists of the company used various schemes of foliar feeding of basic agricultural crops in all soil-climatic conditions of Ukraine. Depending on the combination of various factors (main nutrition systems, the use of plant protection technologies, soil characteristics and weather conditions, etc.), the final results, of course, had differences. All schemes of feeding showed positive results from the use of the fertilizers of the company «ECOORGANIC».

We want to introduce you these results.

For additional information on the systems of non-root nutrition from «ECOORGANIC» LLC and advice on their use you can get by contact email export@ecoorganic.ua

We are sure that with fertilizers from «ECOORGANIC» your harvests will always be good!

**With best regards to you and your business,
Collective of «ECOORGANIC» LLC.**

SEED TREATMENT



Experiment №1

Production demo-field of LLC «ECOORGANIC» on the plant territory (vil. Kivshovata, Taraschansky District of Kyiv Region)

Soil: medium loam with a reaction close to neutral and high content of phosphorus and potassium

Cultures: winter wheat, sunflower

Planting date: 11 August, 2017



Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2
Seed treatment (BBCH 00) 11.08.2017	Without fertilizers for seed treatment	ECOLINE Universal Seeds Chelates 0.5 l/t	GROS Root Growth 1.0 l/t

Intermediary report

Intermediary report performed on 07.09.2017



Показники	Control	Variant 1	Variant 2
Winter wheat (mean values)			
Plant height, cm	12,0	17,0	18,0
Weight of 1 plant, g	0,52	1,2	1,70
Root length, cm	6,5	10,0	10,50
Sunflower (mean values)			
Plant height, cm	13,0	18,0	22,5
Plant weight, g	10,5	19,7	38,2
Root weight, g	1,7	3,5	4,8
Stem thickness, cm	0,5	0,7	0,9
Root length, cm	10,5	15,5	16,5

Experiment №2

Culture: winter wheat

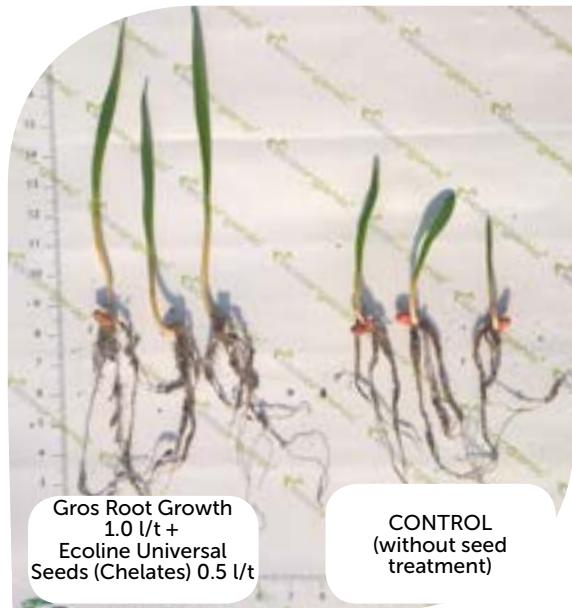
Planting date: 29.09.2017

Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1
Seed treatment (BBCH 00) 29.09.17	Without fertilizers for seed treatment	Gros Root Growth 1.0 l/t + Ecoline Universal Seeds (Chelates) 0.5 l/t

Intermediary report

Intermediary report, condition of planting 10.10.2017



Condition of planting 28.11.2017



Experiment №3

Test fields of LLC «Biotech LTD» (vil. Gorodishche, Boryspilsky District, Kyiv Region)

Contact person: Agronomist Sergei Zhreb - +38 (067) 249-15-06.

Soil: dark gray podzolized on loessial soil of light loam granulometric composition, characterized by weakly acidic reaction of soil solution (pH - 5.20), low content of mineral nitrogen (13.4 mg/kg), high degree of mobile compounds of phosphorus (168 mg/kg) and potassium (174 mg/kg).

Culture: Sunflower.

Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2
Seed treatment (BBCH 00)	Without fertilizers for seed treatment	Seed treatment with competitor's fertilizers (USA)	Gros Root Growth 1.0 l/t (!! contains phytohormones and L-α-amino acids)

Intermediary report



Condition of plants 30.06.2017



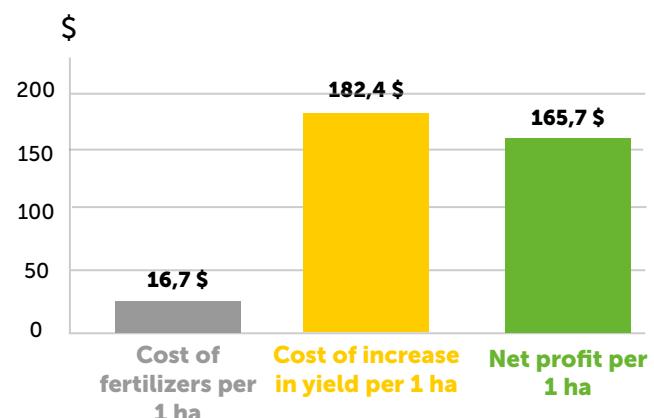
Harvesting 20 August, 2017.

RESULTS

Yield and increase in sunflower harvest (hundredweight/ha)



Financial indicators of fertilizers from «ECOORGANIC» (USD with VAT; price for sunflower – 380 USD)



WINTER WHEAT



Experiment №1

LLC «ECOORGANIC» & LLC "GREEN HARVEST" FARM "ZOLOTYI KOLOS", vil. Vendichani, Mohyliv-Podilsky District, Vinnytsia Reg.

Head: Mykhailo Yefremov - +380-67-307-72-65,
Agronomist Mykhailo Lysiany - +380-67-430-57-39

Grade: Cubus (KWS)

Predecessor: corn.

Soil treatment: disking in 2 tracks, cultivation in 2 tracks

Planting date 10.10.2016

Sowing rate: 260 kg/ha (5 mln. pcs./ha)

Main fertiliser: autumn – 150 kg nitroamophos ($N_{16}P_{16}K_{16}$), December: 130 kg of ammonium sulphate ($N_{21}S_{24}$), March: over frozen melted ground 200 l KAC (N_{28})

Total main fertilizer, kg/ha of active substance: $N_{107}P_{24}K_{24}S_{31}$.

Soil: dark gray podzolized. According to the granulometric composition it is the average loam. Mildly acid with an average level of supply of mobile forms of phosphorus and potassium.

Culture: Sunflower, winter wheat.



Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2	Variant 3
Seed treatment (BBCH 00)	Without fertilizers for seed treatment	Ecoline Universal Seeds Chelates 0.5 l/t	Ecoline Universal Seeds Chelates 0.5 l/t + Ecoline Phosphite-K 0.5 l/t	Ecoline Universal Seeds Chelates - 0.5 l/t + Ecoline Phosphite-K 1.0 l/t
Tillering (spring) (BBCH 25-29) Date: 10.04.2017	Without fertilizers for seed treatment	Ecoline Phosphite-K 2.0 l/ha	Ecoline Phosphite K-Amino 2.0 l/ha	Gros Phosphito NP 1.0 l/ha
Stem development (BBCH 31-49) Date: 18.05.2017	Without fertilizers for seed treatment	Ecoline Phosphite K-Amino 1.0 l/ha + Ecoline Grain Chelates 2.0 l/ha	Ecoline Phosphite K-Amino 1.0 l/ha + Ecoline Universal Growth Amino 2.0 l/ha	Gros Phosphito NP 1.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha
Caryopsis formation (BBCH 59-65) Date: 19.06.2017	Without fertilizers for seed treatment	Ecoline Phosphite K 1.0 l/ha + Ecoline Grain Chelates 1.0 l/ha	Ecoline Phosphite K-Amino 1.0 l/ha + Ecoline Grain Chelates 1.0 l/ha	Ecoline Grain Chelates 2.0 l/ha

Intermediary report

Appearance of plants at the beginning of the phase of the stem development 28.04.2017



Intermediary report performed on 31.05.2017

Indicator	Control	Variant 1	Variant 2	Variant 3
Plant density, pcs./m ²	520	540	540	580
Productive stem density, pcs./m ²	600	640	640	700
Coefficient of productive bushing	1,15	1,19	1,19	1,21
Plant weight, g/m ²	6000	6600	6360	7300



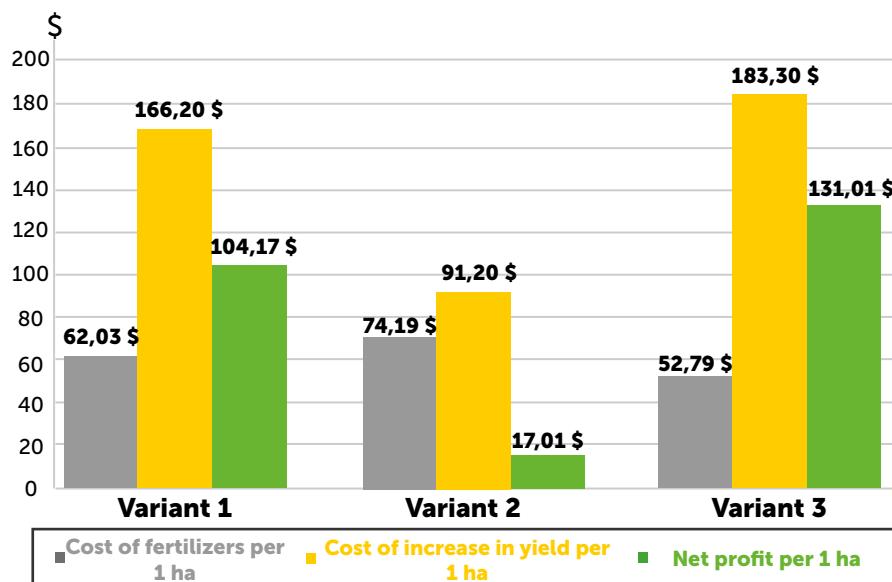
Photo of plants during the implementation of intermediate report

RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight /ha



Financial efficiency of fertilisers of LLC "ECOORGANIC" (calculated at cost of 200 USD per 1 tonne of wheat)



Experiment №2

DEMO - FIELD LLC «ECOORGANIC» & LLC «ZAHID AGROBIZNES»

(LLC "Favorit-Agro", Koretsky District, Rivne Region)

Agronomist Artem Gavrylyuk tel. +380-97-869-54-74

Grade: Cubus (KWS)

Predecessor: Winter rye

Soil treatment: autumn - deep loosening in 2 tracks

Planting date: 13.10.2016

Sowing rate: 280 kg/ha (5.5 mln. pcs./ha)

Main fertiliser: autumn – 50 kg potassium chloride (K_{62}),
160 kg ammophos ($N_{12}P_{52}$), spring – 100 kg nitroamophos ($N_{16}P_{16}K_{16}$),
200 kg limestone nitrate ($N_{27}Ca_{4}Mg_{2}$)

Total main fertilizer, kg/ha of active substance: $N_{89}P_{99}K_{47} + Ca_{4}Mg_{2}$



Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2
Seed treatment (BBCH 00) 14.10.17	Without fertilizers for seed treatment	Ecoline Universal Seeds (Chelates) 0.5 l/t + Ecoline Phosphate-K 0.5 l/t	Ecoline Universal Seeds (Chelates) 0.5 l/t + Ecoline Phosphate-K 0.5 l/t
Tillering (spring) (BBCH 25-29) 10.05.17	Without fertilizers for seed treatment	Ecoline Phosphate-K 1.0 l/ha + Ecoline Grain Chelates 1.0 l/ha	Ecoline Phosphate K-Amino 1.0 l/ha + Ecoline Grain Chelates 1.0 l/ha
Stem development (BBCH 45-49) 21.05.17	Without fertilizers for seed treatment	Gros Phosphate NP 2.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha	Gros Phosphate LNPK 2.0 l/ha
Formation of spikelets (BBCH 51-58) 01.06.17	Without fertilizers for seed treatment	Gros Health 1.0 l/ha	Gros Health 1.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha
Caryopsis formation (BBCH 59-65) 15.06.17	Without fertilizers for seed treatment	Gros Health 1.0 l/ha	Gros Health 1.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha

Intermediary report

Intermediary accounting performed on 6 of July 2017

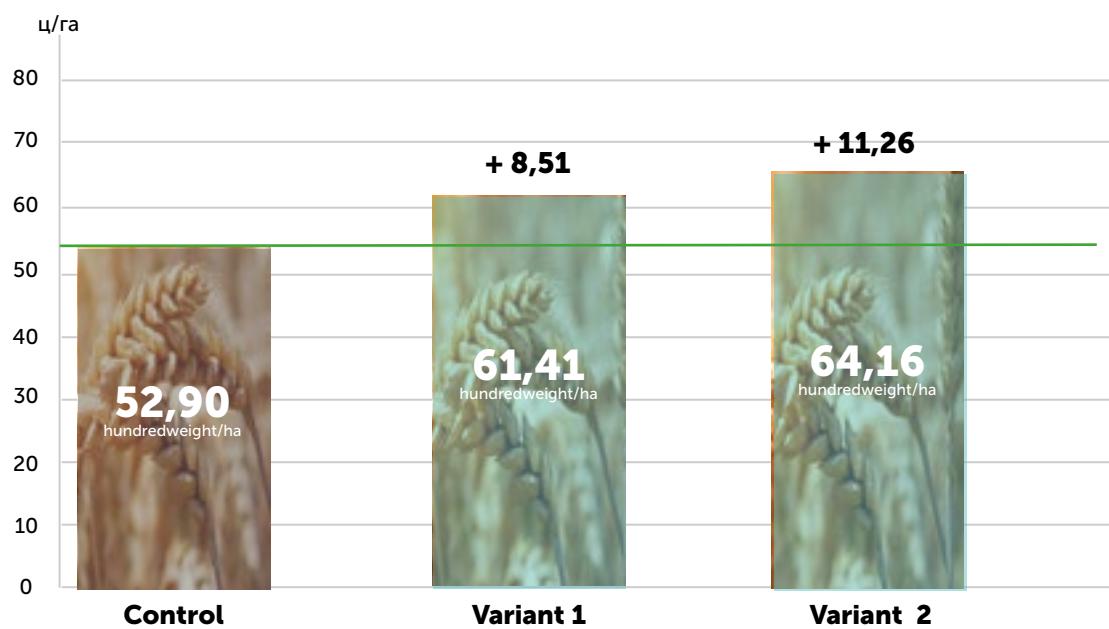
Indicator	Control	Variant 1	Variant 2
Productive stem density, pcs./m ²	500	520	560
Plant weight, g/0.33 run.m.	195	252	259
Weight of spikelet, g/0.33 run.m.	77	107	123

Photo of plants during the implementation of intermediate report 06.07.17 p.

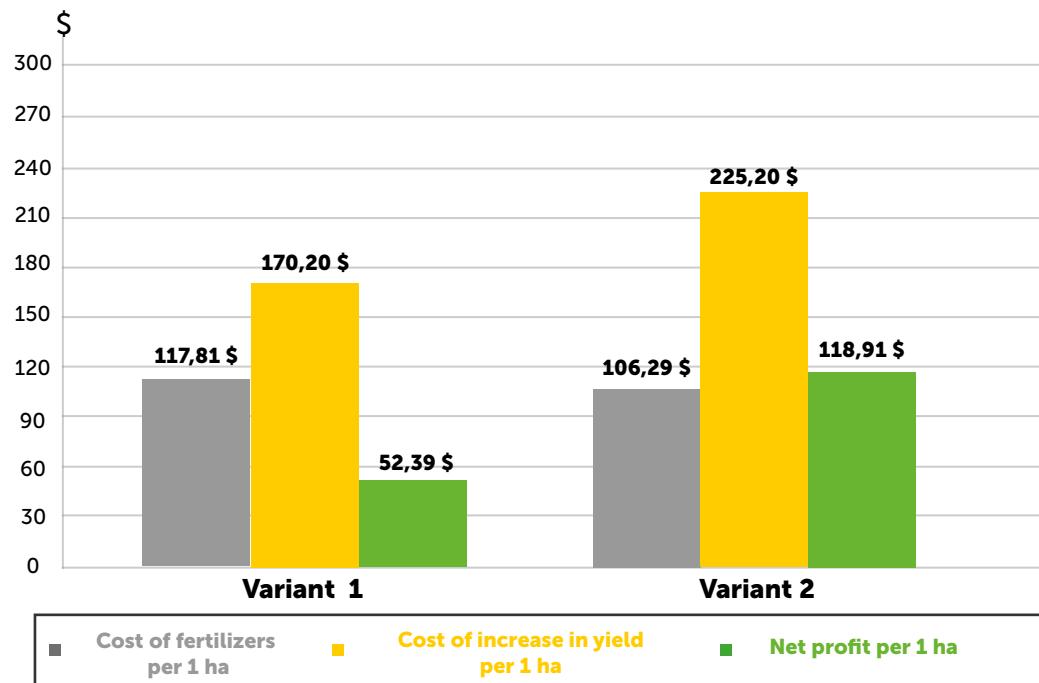


RESULTS

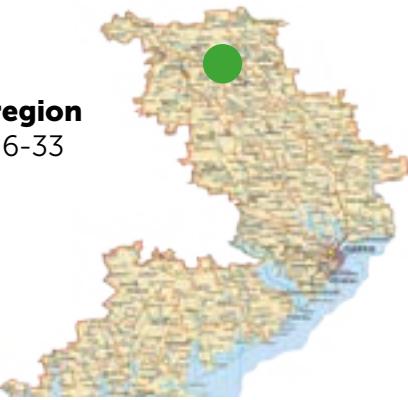
Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight /ha



Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 200 USD per 1 tonne of wheat)



Experiment №3



DEMO-FIELD LLC «ECOORGANIC»

Farm «Obriy» vil. Novokarbivka, Lyubashevsky district, Odessa region

Agronomist of Farm «Obriy»: Volodymyr Solomiany t. 8(099)410-06-33

Grade: Pannonikus (SAATBAU)

Predecessor: corn.

Soil treatment: autumn - disking in 2 tracks, spring - cultivation

Planting date: 14.10.2016

Main fertiliser: autumn – 100 kg nitroamophos ($N_{16}P_{16}K_{16}$).

Total main fertilizer, kg/ha of active substance: $N_{16}P_{16}K_{16}$.

Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2	Variant 3
Seed treatment (BBCH 00) 13.10.16	Without fertilizers for seed treatment	Ecoline Universal Seeds (Chelates) 0.5 l/t	Ecoline Universal Seeds Chelates 0.5 l/t + Ecoline Phosphite-K 0.5 l/t	Ecoline Universal Seeds Chelates 0.5 l/t + Ecoline Phosphite-K 1.0 l/t
Tillering (spring) (BBCH 25-29) 13.04.17	Without fertilizers for seed treatment	Gros Phosphito NP 2.0 l/ha	Ecoline Phosphite-K 2.0 l/ha	Ecoline Phosphite K-Amino 2.0 l/ha
Flag leaf (BBCH 45-49) 18.05.17	Without fertilizers for seed treatment	Ecoline Universal Growth Amino 2.0 l/ha + Ecoline Phosphite K-Amino 1.0 l/ha	Ecoline Magnesium Chelates 2.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha	Ecoline Grain Chelates 2.0 l/ha + Ecoline Phosphite K-Amino 1.0 l/ha
Caryopsis formation (BBCH 59-65) Дата: 15.06.17	Without fertilizers for seed treatment	Ecoline Grain Chelates 2.0 l/ha	Ecoline Phosphite-K 1.0 l/ha + Ecoline Grain Chelates 1.0 l/ha	Ecoline Phosphite K-Amino 1.0 l/ha + Ecoline Grain Chelates 1.0 l/ha

Intermediary report



**Appearance of plants after the second feeding
05.05.2017**

Intermediary accounting performed on 30.05.2017

Indicator	Control	Variant 1	Variant 2	Variant 3
Plant density, pcs./m ²	400	500	520	520
Productive stem density, pcs./m ²	540	740	760	720
Coefficient of productive bushing	1,35	1,48	1,46	1,38
Plant weight, g/m ²	3940	5120	4890	4670



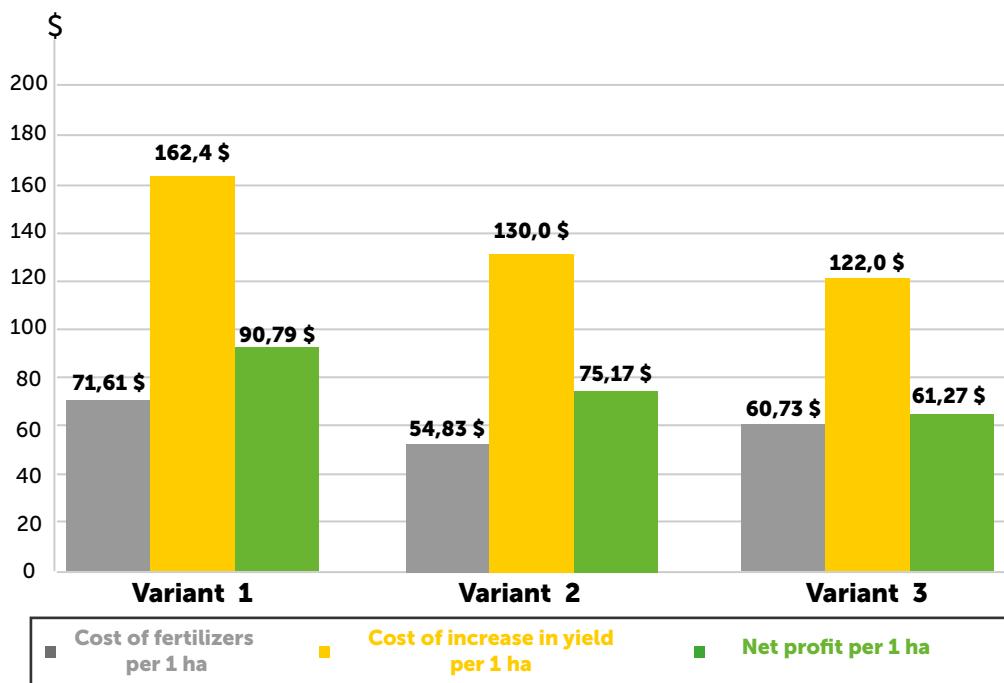
**Appearance of plants in the ear staining phase
30.05.2017**

RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight /ha



**Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 200 USD per 1 tonne of wheat)**



GROS

Amino-Zn



Element		%
Zinc	Zn	8,0
Amino acids		6,0
L-α-amino acids		6,0
pH - 6,50		
Density - 1,15		

Liquid fertilizer containing zinc and L-α amino acids. It is intended for foliar feeding of cultures susceptible to lack of zinc. Zinc takes an active part in oxidation-reduction processes, in the biosynthesis of growth stimulants, activates the synthesis of enzymes in the plant organism.

Zinc deficiency reduces the absorption of ammonia nitrogen, affects the formation of seeds. With a lack of zinc in plants, the accumulation of sugars decreases, the amount of organic acids increases, protein synthesis is disturbed; thus the content of non-protein compounds of nitrogen - amides and amines increases. The combination of zinc with amino acids improves its absorption by plants and eliminates stress.

Plants	Application period	Dosage, l/ha
Corn	4 – 6 leaves	0,5 - 1,0
Millet, sorghum	Start of tillering	0,5 - 1,0
Legumes	Before flowering	1,0
Sunflower	6 – 8 pairs of leaves	1,0
Winter crops	Tillering	0,5 - 1,0
Fruit	Fruit size "hazelnut"	1,0
Vegetables	Fruit setting	1,0

Corn



Experiment №1

DEMO - FIELD LLC «ECOORGANIC» & LLC «ZAHID AGROBIZNES»

LLC "Favorit-Agro", Koretsky District, Rivne Region

Agronom of LLC «Zahid Agrobiznes» Artem Gavrylyuk- +380-97-869-54-74

Hybrid: DS1385A, FAO230 (DOW SEEDS)

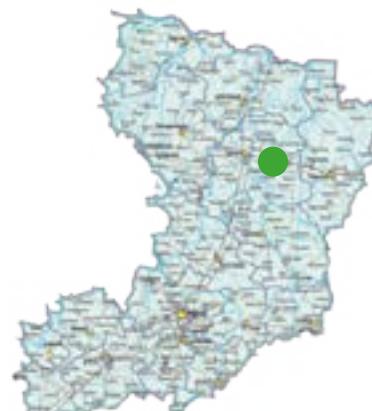
Predecessor: Winter rye

Soil treatment: autumn - deep loosening in 2 tracks, spring - cultivation

Planting date: 05.05.2017.

Main fertiliser: autumn – 50 kg potassium chloride (K_{62}), 160 kg ammophos ($N_{12}P_{52}$), spring – 100 kg nitroamophos ($N_{16}P_{16}K_{16}$), 200 kg limestone ammonium nitrate ($N_{27}Ca_4Mg_2$)

Total main fertilizer, kg/ha of active substance: $N_{89}P_{99}K_{47}+Ca_4Mg_2$



Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2	Variant 3
3 - 5 leafs (BBCH 13 - 15) 29.05.2017	Without fertilizers for seed treatment	Gros Health 1.0 l/ha + Ecoline Zinc Chelate 1.0 l/ha	Ecoline Phosphate K-Amino 2.0 l/ha + Ecoline Zinc Chelate 1.0 l/ha	Ecoline Phosphate K-Zn 2.0 l/ha + Ecoline Corn Chelates 1.0 l/ha
6 - 9 leafs (BBCH 16 - 19) 09.06.17	Without fertilizers for seed treatment	Gros Health 1.0 l/ha + + Ecoline Phosphate K 1.0 l/ha + Ecoline Corn Chelates 2.0 l/ha + Ecoline Boron Organic 1.0 l/ha	Gros Health 1.0 l/ha + Ecoline Phosphate K 1.0 l/ha + Ecoline Corn Chelates 2.0 l/ha + Ecoline Boron Organic 1.0 l/ha	Ecoline Phosphate K 1.0 l/ha + Ecoline Universal Growth Chelates 2.0 l/ha + Ecoline Zinc Chelate 1.0 l/ha + Ecoline Boron Organic 1.0 l/ha

Intermediary report

Accounting, made on plants on July 6, showed significant

Indicator	Control	Variant 1	Variant 2	Variant 3
Root weight, g	65,0	108,0	112,0	121,0
Leaf weight, g	47,0	77,0	74,0	69,0
Plant height, cm	97,0	125,0	126,0	129,0

Sampling performed on 6 July, 2017



State of corn plants on July 11, 2017



State of corn plants 05.09.2017



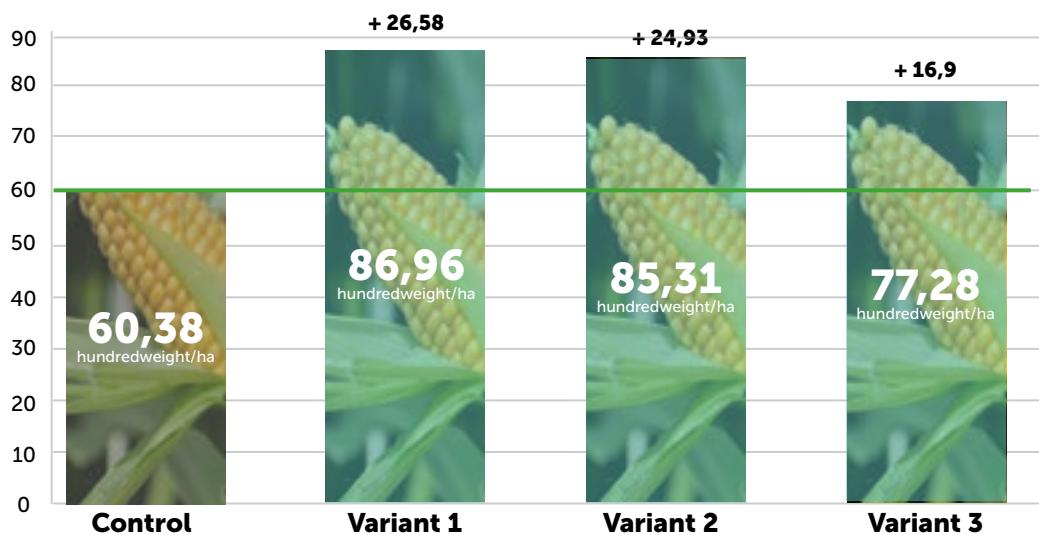
Sampling performed on 25 October, 2017

Indicator	Control	Variant 1	Variant 2	Variant 3
Number of rows, pcs	14,0	15,2	15,2	14,4
Number of grains per row, pcs	28,4	42,4	41,2	38,4
Cob length, cm	12,3	17,8	16,9	15,9

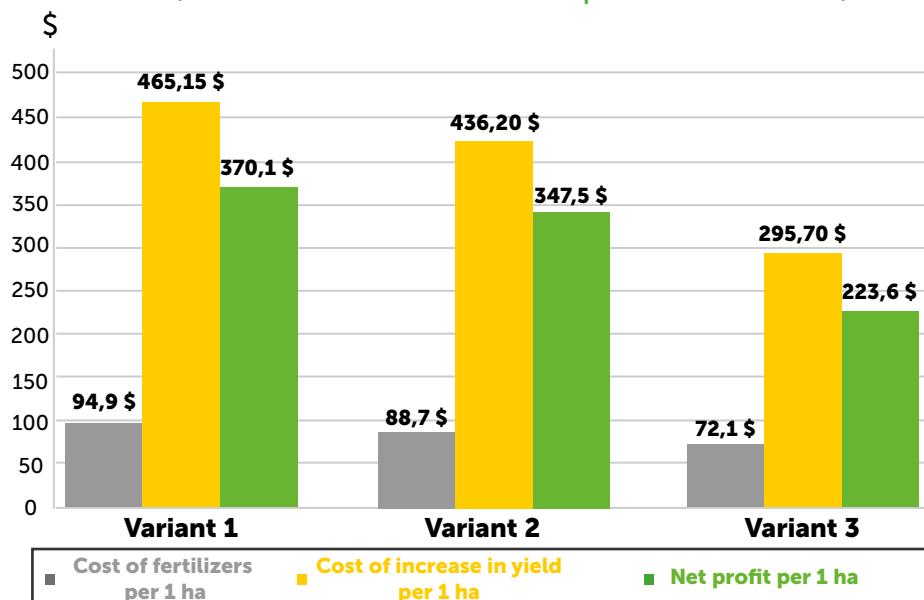


RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight/ha



Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 175 USD per 1 tonne of corn)



Experiment №2

DEMO - FIELD LLC «PIONEER SEEDS UKRAINE»

PAE «Mshanetske», Terebovlyansky District, Ternopil Region

Regional representative of LLC «Pioneer Ukraine»:

Mykola Kostyuk 095-282-73-76

Hybrid: P8523 (FAO 260) (Pioneer)

Predecessor: Winter wheat

Soil treatment: autumn - stubble discing (5-8 cm), plowing (30 cm), spring - cultivation (8-10 cm), combinator (4-5 cm)

Planting date: 26-27.04.2017

Main fertiliser: ammonia water - 500 l / ha + diamofos ($N_{10}P_{26}K_{26}$) – 300 kg/ha

Total main fertilizer, kg/ha of active substance: $N_{130}P_{78}K_{78}$

Система захисту: 1) Таск® Екстра, 440 г/га + Синерджен SOC, 0,5л/га (29 травня, 4-6 листків); 2) Кораген®, 150 г/га + Аканто®, 1л/га (фаза поч.викидання волоті, кругова обробка)



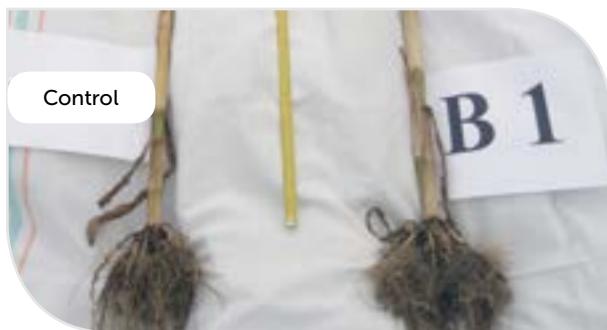
Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2	Variant 3	Variant 4
3 - 5 leafs (BBCH 13 - 15) 30.05.17	Without fertilizers for seed treatment	Ecoline Zinc Chelate 2.0 l/ha	Ecoline Zinc Chelate 2.0 l/ha + Ecoline Phosphite-K 1.0 l/ha	Ecoline Zinc Chelate 1.0 l/ha + Ecoline Phosphite-K 1.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha	Ecoline Zinc Chelate 1.0 l/ha + Ecoline Phosphite-K 1.0 l/ha + Ecoline Universal Growth Amino 1.0 l/ha + Gros Root Growth 0.5 l/ha
6-9 leaves (BBCH 16-19) 16.06.17	Without fertilizers for seed treatment	Ecoline Corn Chelates 2.0 l/ha	Ecoline Corn Chelates 1.0 l/ha + Gros Phosphito-NP 1.0 l/ha	Ecoline Corn Chelates 1.0 l/ha + Gros Phosphito-NP 1.0 l/ha + Ecoline Boron Premium 1 l/ha	Ecoline Corn Chelates 1.0 l/ha + Gros Phosphito-NP 1.0 l/ha + Ecoline Boron Premium 1.0 l/ha + Gros Health 0.5 l/ha

Intermediary report

Intermediary report performed on 25 August, 2017

Indicator	Control	Variant 1	Variant 2	Variant 3	Variant 4
Weight of root system, g	91	89	147	294	289
Leaf weight, g	115	108	135	151	179
Plant height, cm	254	267	285	290	287





Sampling is performed prior to harvesting on 04.10.2017

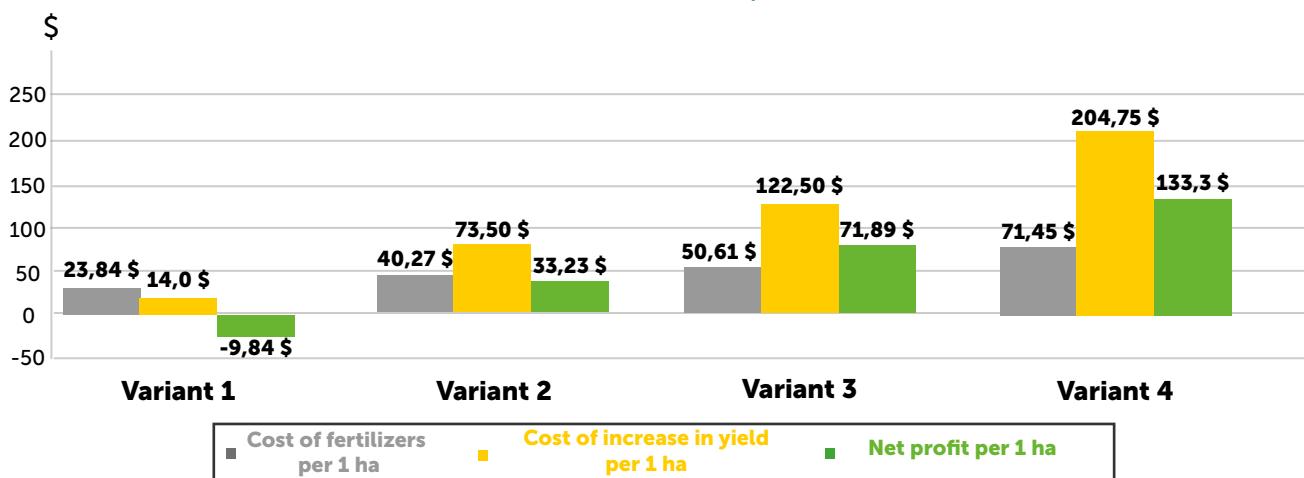
Indicator	Control	Variant 1	Variant 2	Variant 3	Variant 4
Number of rows, pcs	14,0	15,6	16,3	16,3	16,9
Number of grains per row, pcs	31,2	32,5	35,3	37,4	39,7
Cob length, cm	16,7	17,2	17,2	17,8	18,9

RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight/ha



Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 175 USD per 1 tonne of corn)



SUNFLOWER



Experiment №1

DEMO-FIELD LLC «Dow-DuPont-Pioneer»

PAE «Mshanetske», Terebovlyansky District, Ternopil Region

Regional representative of LLC «Pioneer Ukraine»:

Mykola Kostyuk 095-282-73-76

Hybrid: PR64HE118 (Pioneer PROTECTOR®, DuPont™ ExpressSun™ trait)

Predecessor: Winter wheat

Soil treatment: autumn - stubble disking (5-8 cm), plowing (30 cm),

spring - cultivation (8-10 cm), combinator (4-5 cm)

Planting date: 26-27.04.2017

Main fertiliser: ammonia water - 500 l / ha + diamofos

(N₁₀P₂₆K₂₆) – 300 kg/ha

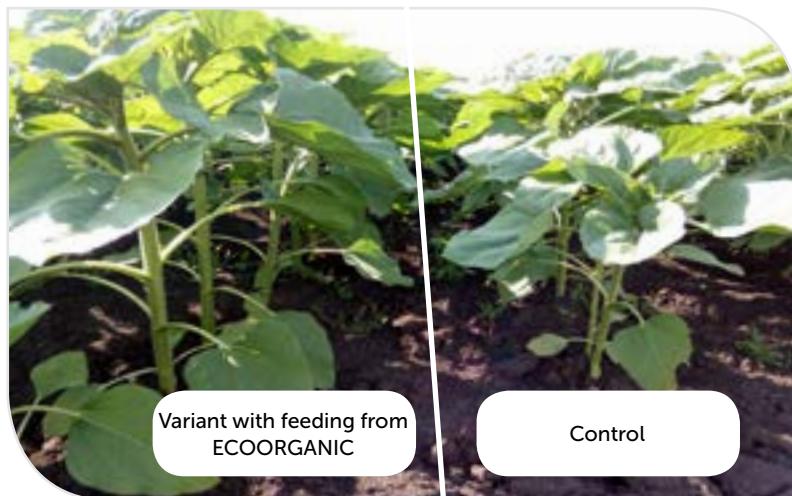
Total main fertilizer, kg/ha of active substance: N₁₃₀P₇₈K₇₈



Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1
2-4 pairs of leaves (BBCH 16-18) 16.06.17	Without fertilizers for seed treatment	Ecoline Phosphite-K 2.0 l/ha + Ecoline Boron Premium 1.0 l/ha
5 pairs of leaves (BBCH 20 - 24) 26.06.17	Without fertilizers for seed treatment	Ecoline Phosfite K-Zn 2.0 l/ha + Ecoline Boron Premium 1.0 l/ha

Intermediary report



**State of crops in the phase of 5-7 leaves
before the second foliar nutrition**

Variant with feeding from
ECOORGANIC

Control

Sampling and intermediary accounting performed on 26 August, 2017

Indicator	Control	Variant 1
Root weight, g	179	219
Leaf weight, g	265	307
Plant height, cm	208	220
Diameter of basket, cm	19	22



**Selection of typical samples
during harvesting 10.10.2017
(CONTROL)**



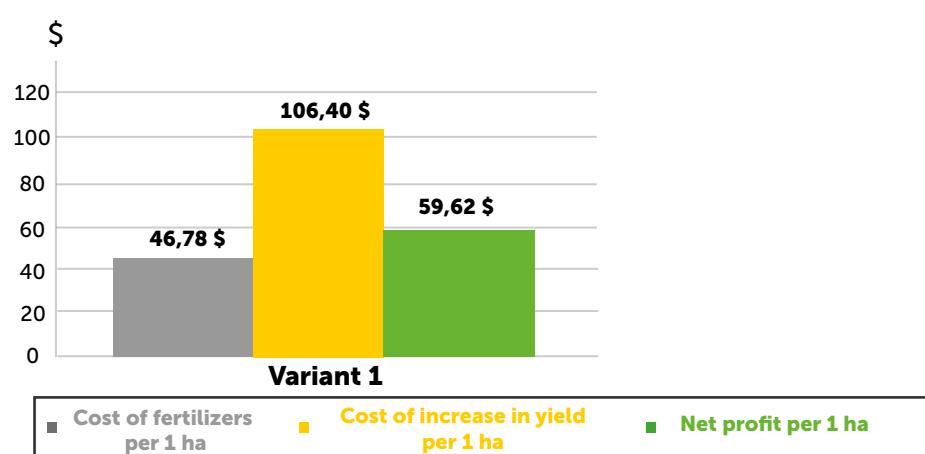
**FERTILIZING FROM
«ECOORGANIC»**

RESULTS

**Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC",
hundredweight/ha**



Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 380 USD per 1 tonne of sunflower)



Experiment №2

DEMO - FIELD LLC «ECOORGANIC» & LLC «ZAHID AGROBIZNES» LLC

“Favorit-Agro”, Koretsky District, Rivne Region

Agronom of LLC «Zahid Agrobiznes» Artem Gavrylyuk - +380-97-869-54-74

Hybrid: 8N358CLDM (DOW SEEDS)

Predecessor: Winter rye

Soil treatment: autumn - deep loosening in 2 tracks, spring - cultivation

Planting date: 05.05. 2017

Main fertiliser: autumn – 50 kg potassium chloride (K_{62}), 160 kg ammophos ($N_{12}P_{52}$), spring – 100 kg nitroamophos ($N_{16}P_{16}K_{16}$), 200 kg limestone nitrate ($N_{27}Ca_4Mg_2$)

Total main fertilizer, kg/ha of active substance: $N_{89}P_{99}K_{47}+Ca_4Mg_2$

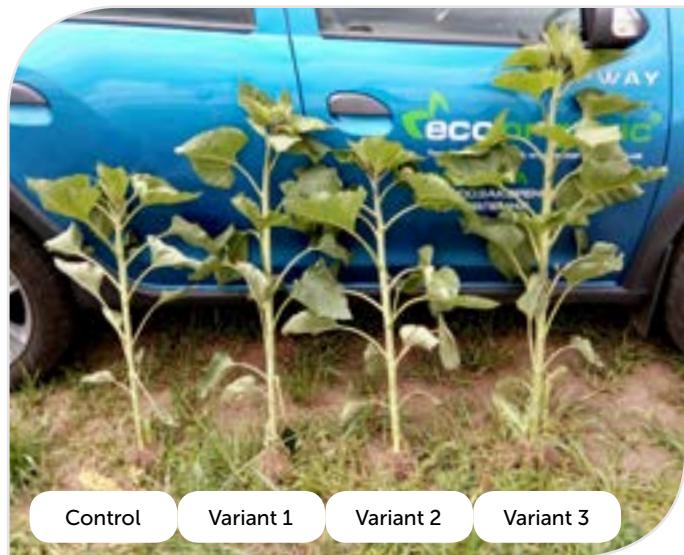


Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2	Variant 3
2-4 pairs of leaves (BBCH 16-18) 18.06.17	Without fertilizers for seed treatment	Ecoline Universal Growth Amino 1.5 l/ha + Ecoline Boron Organic 1.0 l/ha	Gros Phosphito-LNPK 2.0 l / ha + Ecoline Boron Organic 1.0 l/ha	Ecoline Phosphate K-Amino 2.0 l/ha + Ecoline Boron Organic 1.0 l/ha
5-7 leaf pairs (BBCH 20 - 24) 26.06.17	Without fertilizers for seed treatment	Ecoline Phosphate-K 2.0 l/ha + Ecoline Boron Premium 1.0 l/ha	Ecoline Universal Growth Amino 2.0 l/ha + Ecoline Boron Organic 1.0 l/ha	Ecoline Universal Growth Chelates 2.0 l/ha + Ecoline Boron Premium 1.0 l/ha

Intermediary report

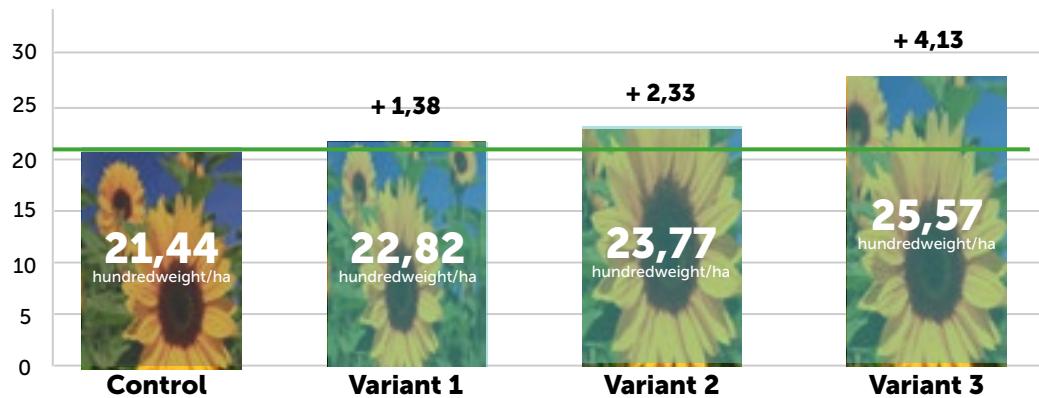
Sampling and intermediary report performed on 6 July, 2017



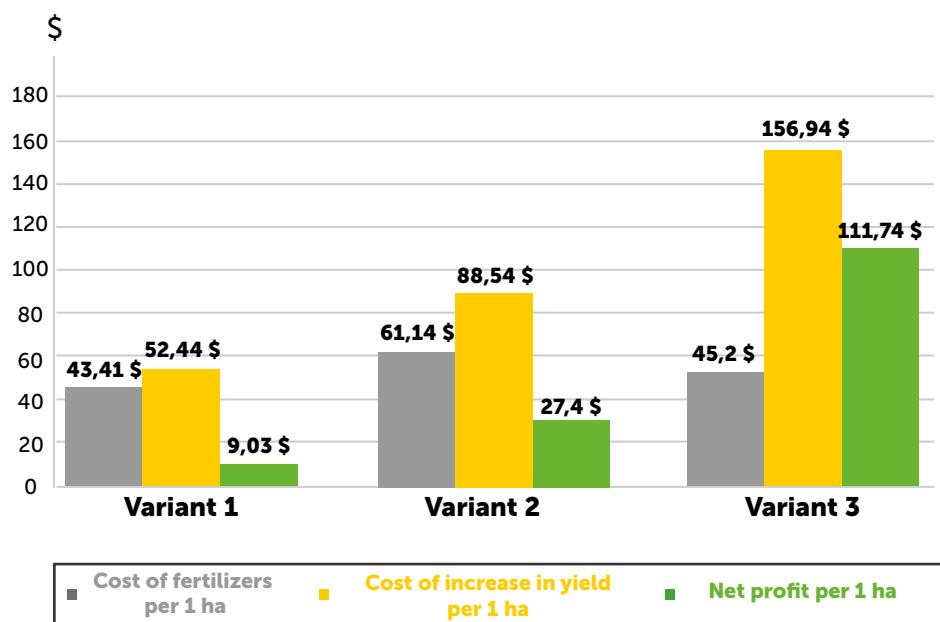
Indicator	Control	Variant 1	Variant 2	Variant 3
Leaf weight, g	109	142	178	252
Plant height, cm	64	85	73	95
Diameter of basket, cm	2,7	6,0	5,0	6,0

RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight/ha



Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 380 USD per 1 tonne of sunflower)



GROS

Quitcelium



Element		%
Ferrum	Fe	2,4
Manganese	Mn	0,6
Zinc	Zn	0,6
Cuprum	Cu	0,6
Bor	B	0,24
Molibdenum	Mo	0,02
Amino acids		2,0
L-α-amino acids		2,0
Phytohormones		60,0 ppm
cytokinins		30,0 ppm
gibberellins		15,0 ppm
Auxins		15,0 ppm
pH - 7,50		
Density - 1,16		

Liquid fertilizer - a stimulant for foliar feeding of many crops. It contains trace elements, amino acids and phytohormones. Fertilizer is intended to stimulate the processes of flowering and pollination, increase the number of fruits and their size. It is used on field crops, in vegetable growing and horticulture, as well as in the technologies of ornamental plants' growing.

Plants	Application period	Dosage, l/ha
Sunflower	Scoop creation	0,5 - 1,0
Rape	The budding phase	1,0 - 1,5
Legumes	The budding phase	0,5 - 1,0
Vegetables	Before flowering - ripening	1,0 - 1,5
Fruits and berries	Before flowering - ripening	1,0 - 2,0
Vineyards	Before flowering - ripening	0,1 % solution
Ornamental plants	Before flowering	1,5 - 2,0

SOY



Experiment №1

DEMO - FIELD LLC «ECOORGANIC» & LLC «ZAHID AGROBIZNES» LLC

“Favorit-Agro”, Koretsky District, Rivne Region

Agronom of LLC «Zahid Agrobiznes» Artem Gavrylyuk- +380-97-869-54-74

Grade: Kioto (Prograin)

Predecessor: Winter rye

Soil treatment: autumn - deep loosening in 2 tracks, spring - cultivation

Planting date: 06.05.2017

Main fertiliser: autumn – 50 kg potassium chloride (K_{62}), 160 kg ammophos ($N_{12}P_{52}$), spring – 100 kg nitroamophos ($N_{16}P_{16}K_{16}$), 200 kg limestone nitrate ($N_{27}Ca_4Mg_2$)

Total main fertilizer, kg/ha of active substance: $N_{89}P_{99}K_{47}+Ca_4Mg_2$



Experiment programme of LLC «ECOORGANIC»

Development phase, BBCH, date	Control	Variant 1	Variant 2	Variant 3
3 - 5 triple leafs (BBCH 13 - 15) 08.06.17	Without fertilizers for seed treatment	Ecoline Phosphite-K 2.0 l/ha + Ecoline Molybdenum Complex 1.0 l/ha	Ecoline Phosphite K-Amino 2.0 l/ha + Ecoline Molybdenum Complex 1.0 l/ha	Ecoline Phosphite K-Zn 2.0 l/ha + Ecoline Molybdenum Complex 1.0 l/ha
Budding (BBCH 51-61) 26.06.17	Without fertilizers for seed treatment	Gros Health 1.5 l/ha + Ecoline Boron Premium 1.0 l/ha	Gros Quitcelium 1.0 l/ha + Ecoline Boron Premium 1.0 l/ha	Gros Quitcelium 1.5 l/ha + Ecoline Boron Premium 1.0 l/ha
Beginning of bean formation (BBCH 69-75) 20.06.17	Without fertilizers for seed treatment	Ecoline Phosphite-K 1.0 l/ha + Ecoline Bean Chelates 2.0 l/ha	Ecoline Phosphite K-Zn 1.0 l/ha + Ecoline Bean Chelates 2.0 l/ha	Gros Health 1.0 l/ha + Ecoline Bean Chelates 2.0 l/ha

Intermediary report

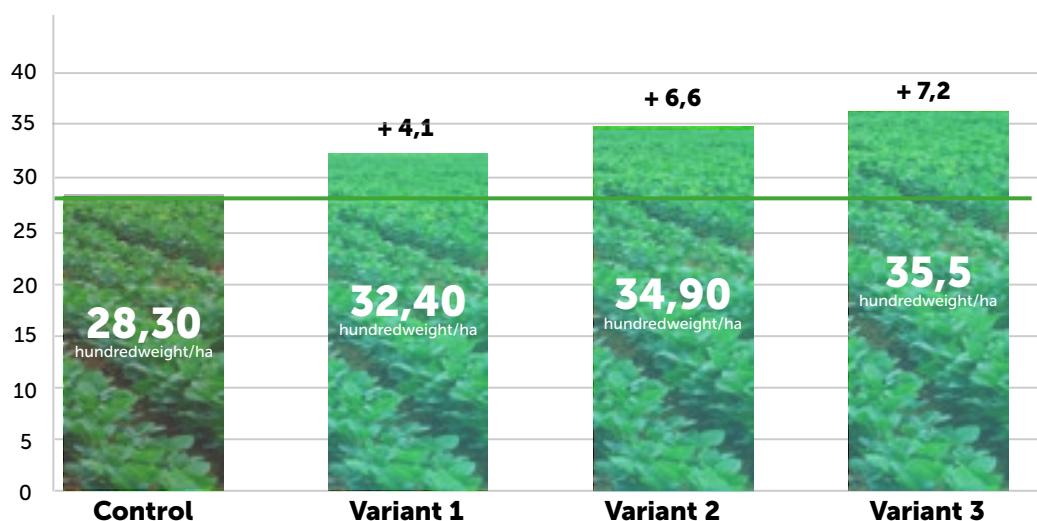


Sampling performed on 19 August, 2017

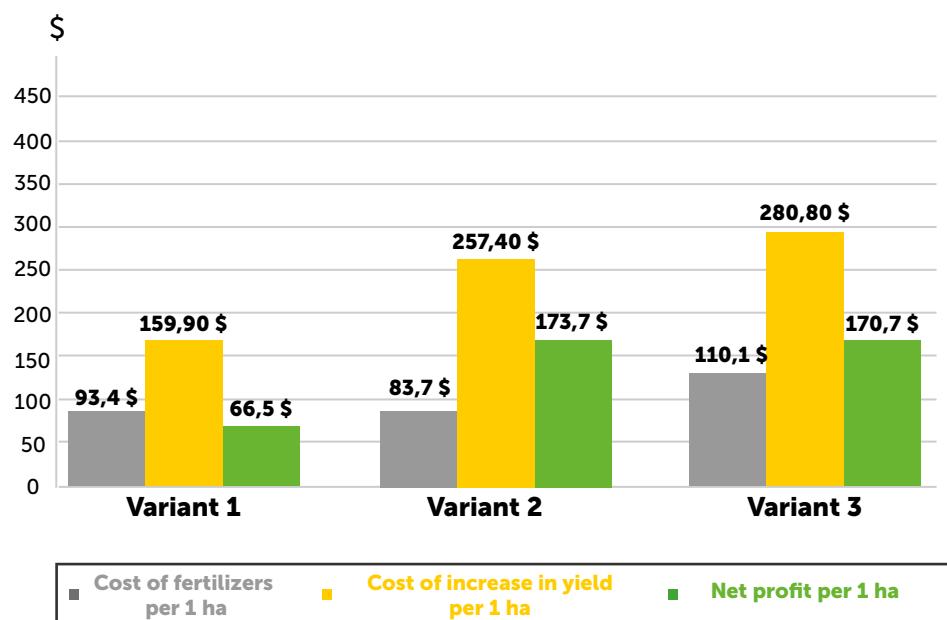
Indicator	Control	Variant 1	Variant 2	Variant 3
Number of beans, pcs./1 plant	21,7	24,3	28,1	31,5
Plant height, cm	93,0	96,0	95,0	96,0
Plant weight, g/0.33 run.m.	337	401	515	585

RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight/ha



Financial efficiency of fertilisers of LLC "ECOORGANIC" (calculated at cost of 390 USD per 1 tonne of soy)



GROS

Root Growth



Element		%
Nitrogen	N - NH ₂	3,0
Phosphorus (Phosphate)	P ₂ O ₅	5,0
Potassium	K ₂ O	3,0
Amino acids		3,0
L-α-amino acids		3,0
Phytohormones		22,0 ppm
cytokinins		20,0 ppm
auxins		2,0 ppm
pH - 6,00		
Density - 1,09		

Liquid fertilizer - growth stimulator of the root system of plants. Phosphorus and phytohormones provide active growth of the root system of plants. It is recommended for pre-sowing seed treatment, treatment of seedlings' roots of vegetable and ornamental plants, trees and shrubs before landing, as well as planted plants for better growth. Suitable for use as antistressant in corn and sunflower crops affected by soil herbicides.

Plants	Application period	Dosage, l/ha
Winter crops, corn, legumes, sunflower	Seed treatment	1,0 l/t
Potato	Pre-sowing treatment of tubers	0,5 - 2,0 l/t
Winter crops	2 – 4 leaves - tillering	0,5 - 1,0
Legumes	2 – 3 true leaves	1,0 - 1,5
Winter and spring rapeseed	From 4 leaves	1,0 - 1,5
Corn	4 – 8 leaves	1,0 - 2,0
Sunflower	4 – 8 leaves	1,0 - 2,0
Vegetable	A week after planting seedlings, 2 - 4 true leaves	1,0 - 1,5
Sugar beets	From 2 – 4 leaves	1,0 - 2,0
Root treatment before landing		At a concentration of 0.03%

POTATO



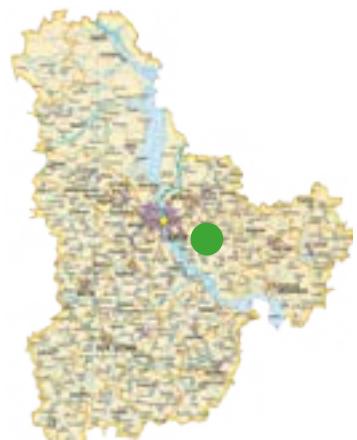
Experiment №1

DEMO - FIELD LLC «ECOORGANIC» & LLC «Biotech LTD»

vil. Gorodyshche, Boryspilsky District, Kyiv Region

Head: Doctor (agr. sciences), Professor Anatoly Bykin

Agronomist of LLC «Biotech LTD» Sergei Zhreb +380-67-249-15-06



Experiment programme of LLC «ECOORGANIC»

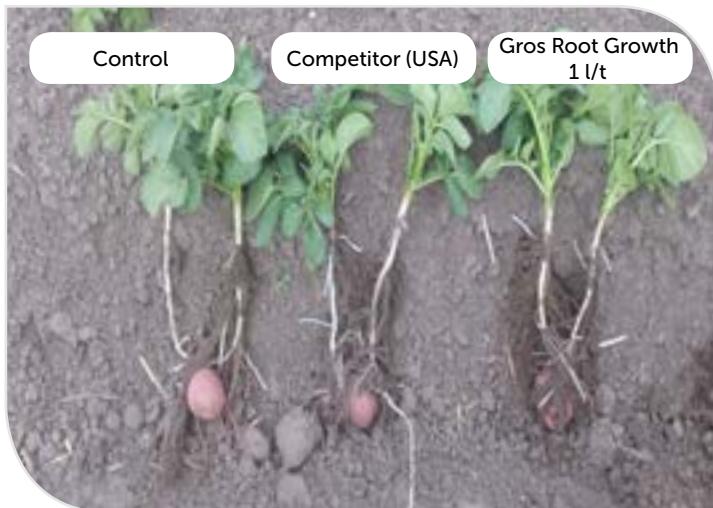
Development phase, BBCH, date	Control	Variant 1
Pre-planting potato treatment (BBCH 00)	Without fertilizers for seed treatment	Gros Root Growth 1.0 l/t
Budding (BBCH 51-59)	Without fertilizers for seed treatment	Gros Health 1.0 l/ha
After blooming (BBCH 69-75)	Without fertilizers for seed treatment	Gros Health 1.0 l/ha + Ecoline Calcium-Boron Chelate 1.0 l/ha

Intermediary report

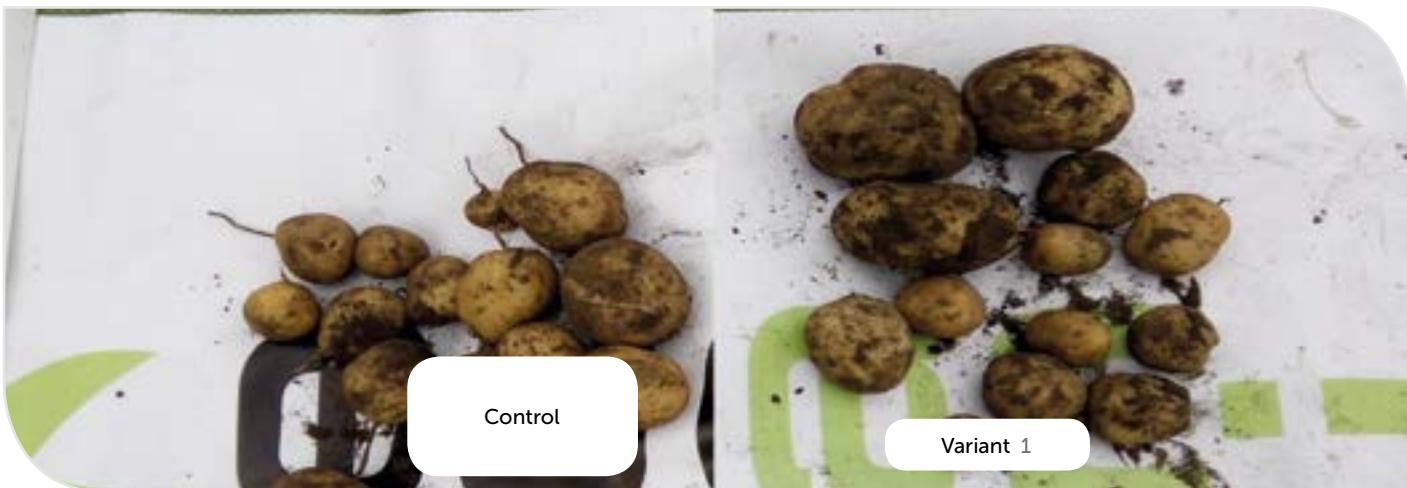


Potato with Gros Root Growth 1 l/t 02.06.2017

Sampling on 02.06.2017

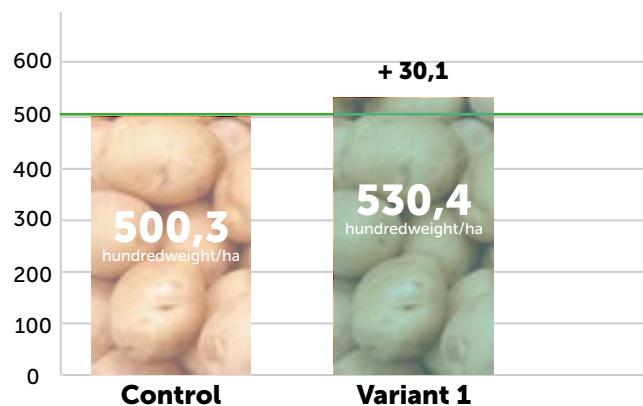


Indicator	Control	Variant 1
Amount of potatoes from 1 plant, pcs.	14	13
Weight of potatoes from 1 plant, g	370	562

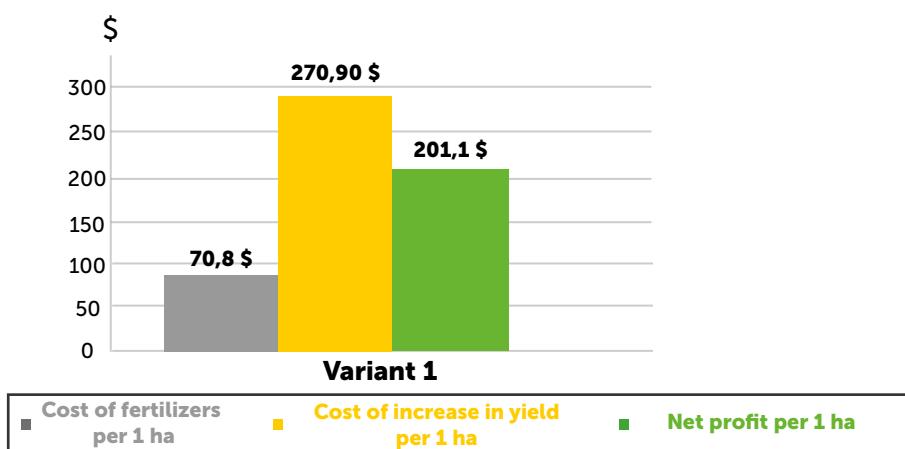


RESULTS

Productivity and yield growth due to application of the nutrition from LLC "ECOORGANIC", hundredweight/ha



Financial efficiency of fertilisers of LLC "ECOORGANIC"
(calculated at cost of 90 USD per 1 tonne of potato)



PREMIUM LINE OF FERTILIZERS "GROS" FROM ECOORGANIC LLC

Exclusive compositions with phytohormones and L- α -amino acids and phosphites.



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