



Research on IHO-Bio
(IHO-AGRO is the trademark for Europe)
on Different Crops Towards Authorization for its use in the
Romanian Agriculture

Summary of results by
IHO-Agro International

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Testing was conducted over two-year period by **The National Institute for Research and Development for Pedology (soil studies) Agrochemical and Environment Protection – ICPA Bucharest**, on different types of soils with and/or without basic fertilization.

Foliar sprays in two or three applications, together with the customary maintenance activities for the specific crops were employed.

The efficacy of the product was measured versus control groups with identical basic fertilization and customary maintenance.

In the first year the scientific research was performed on *tomatoes, cucumbers, carrots* and *spinach* on non-fertilized soils.

In the second year the scientific research was performed on *corn, tomatoes, lettuce, spinach, apple trees* and *grape* on non-fertilized or basic fertilized soils for each crop.

Consistent productivity increase was observed for all crops, all soils and testing conditions. As a result, the product was approved and included in the fertilizer database for Romania. As Romania is part of the EU, the product can be exported to the entire European Union.

Tomatoes

*Year One on tomatoes variety **Adi 7**:*

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi in greenhouse .

Soil: cernoziom cambic without base fertilization.

Three foliar spray treatments, product diluted **0.4%** in water, for a total of **6 l/ha** resulted in a yield increase of 11,163 Kg/ha (42,687 Kg/ha v.s. control, 31,524 Kg/ha). **This represents 135.4% yield increase, and translates into 1860.5 Kg of produce for each liter of IHO AGRO product used.**

*Year Two on tomatoes variety **Rio Grande** :*

Field Testing: Experimental field of Research – Development Centre for crops development on sands in Dabuleni county of Dolj.

Soil: sandy soil (psamosol) with base fertilization of N-100; P₂O₅-100; K₂O-100kg/ha.

Three foliar spray treatments, product diluted **0.2%** in water, for a total of **3 l/ha** resulted in a yield increase of 1,800Kg/ha (23,300 v.s. 21,500 on the control area). **This represents 108 % yield increase, and translates into 600 Kg of produce for each liter of IHO AGRO product used.**

Comment of IHO-Agro International: The quantity of the product used of 3 l/ha is half of the manufacturer recommended quantity, thus the production increase was lower as expected.

Cucumbers

*Year One on cucumbers variety **Cornishon**:*

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi in open field summer crop.

Soil: cernoziom cambic without base fertilization.

Three foliar spray treatments, product diluted **0.4%** in water, for a total of **6 l/ha** resulted in a yield increase of 8,466 Kg/ha (31,194 v.s. 22,728 on the control area). **This**

represents 137.2 % yield increase, and translates into 1,411 Kg of produce for each liter of IHO AGRO product used.

Carrots

Year One on carrots variety Nantes:

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi.

Soil: cernoziom cambic without base fertilization.

With **three** IHO Agro product foliar spray treatments in a water dilution of **0.4%** with a total of **6 l/ha** resulted in a yield increase of 7,506 Kg/ha (27,787 v.s. 20,281 on the control area). **This represents 137 % yield increase, and translates into 1,251 Kg of produce for each liter of IHO AGRO product used.**

Spinach

Year One on spinach variety Matador:

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi.

Soil: cernoziom cambic without base fertilization.

With **three** IHO Agro product foliar spray treatments in a water dilution of **0.4%** with a total of **6 l/ha** resulted in a yield increase of 4312 Kg/ha (15,553 v.s. 11,241 on the control area). **This represents 138.3 % yield increase, and translates into 718.7 Kg of produce for each liter of IHO AGRO product used.**

Year Two on spinach variety Matador:

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi.

Soil: cernoziom cambic without base fertilization.

With **three** IHO Agro product foliar spray treatments in a water dilution of **0.2%** with a total of **3 l/ha** resulted in a yield increase of 2,509 Kg/ha (16,860 v.s. 14,351 on the

control area). **This represents 117.5 % yield increase, and translates into 836.3 Kg of produce for each liter of IHO AGRO product used.**

Comment of IHO-Agro International: The quantity of the product used in year two (for the same crop in the same conditions) is half of the manufacturer recommended quantity, thus the production increase was lower as expected.

Corn

*Year Two on corn variety **Pioneer** :*

Field Testing: Experimental field of the Banat University of Agricultural Sciences and Veterinary Medicine county of Timisoara.

Soil: cernoziom cambic without base fertilization.

With **two** IHO Agro product foliar spray treatments in a water dilution of **0.2%** with a total of **2 l/ha** resulted in a yield increase of 350Kg/ha (3,610 v.s. 3,260 on the control area). **This represents 110.8 % yield increase, and translates into 175 Kg of produce for each liter of IHO AGRO product used.**

Comment of IHO-Agro International: The quantity of the product used of 2 l/ha in dilution of 0.2% using two sprays is less the manufacturer recommended quantity, thus the production increase was lower as expected

Lettuce

*Year Two on corn variety **Silvia**:*

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi.

Soil: cernoziom cambic without base fertilization in greenhouse.

With **three** IHO Agro product foliar spray treatments in a water dilution of **0.2%** with a total of **3 l/ha** resulted in a yield increase of 2,554 Kg/ha (12,710 v.s. 10,156 on the

control area). **This represents 125.2% yield increase, and translates into 851.3 Kg of produce for each liter of IHO AGRO product used.**

Comment of IHO-Agro International: The quantity of the product used of 2 l/ha in dilution of 0.2% using two sprays is less the manufacturer recommended quantity, thus the production increase was lower as expected

Apple Trees

Year Two on apple tree variety Idared :

Field Testing: Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Iasi.

Soil: cernoziom cambic without base fertilization.

With **two** IHO Agro product foliar spray treatments in a water dilution of **0.2%** with a total of **6 l/ha** resulted in a yield increase of 2,866Kg/ha (17,101 v.s. 14,235 on the control area). **This represents 120.1 % yield increase, and translates into 477.6 Kg of produce for each liter of IHO AGRO product used.**

Grapes

Year Two on grapes variety Sauvignon :

Field Testing: Jidvei Experimental field of the University of Agricultural Sciences and Veterinary Medicine county of Cluj Napoca.

Soil: cernoziom cambic without base fertilization.

With **two** IHO Agro product foliar spray treatments in a water dilution of **0.2%** with a total of **6 l/ha** resulted in a yield increase of 670 Kg/ha (6250 v.s. 5580 on the control area). **This represents 112.1 % yield increase, and translates into 111.6 Kg of produce for each liter of IHO AGRO product used.**