

## Results of field trials with Albit® in European Union countries (2009-2012)

(sorted after Crop \ Site of trial \ How Albit was applied)

Nr.	Agricultural crop	Site of trial, country, year	How Albit was applied	Experimental field area, ha	Yield in control (no treatment with Albit), kg/ha	Yield in the variant treated with Albit, kg/ha	Yield increase due to the treatment with Albit, kg/ha over control	Yield increase due to the treatment with Albit, % over control	Additional yield (number of metric tons), due to the application of 1 liter of Albit	Comments
1.	Barley, spring	Agricultural Research Institute Kromeriz (Zemědělský výzkumný ústav Kroměříž), Zlin Region, Czech Republic, 2012	1-2 treatments 40 ml/ha in stages of 2 leaves, tillering, or jointing, accompanied by cutting dosage of fungicides and N-fertilizers	0.03	6787	7470-7713	683-927	10.1-13.7	8.54-23.17	It was shown that the using of intensive system with all of the recommended chemical pesticides (fungicides, insecticides, herbicides, fertilizers, growth regulators) did not ensure yield increase to the absolute control. On the contrary, net loss of 34.1 Euros/ha was encountered. The application of Albit, along with reducing dosages of fungicides by 32% and fertilizers by 67%, granted yield increase to the absolute control by 6.7-10.2 %, net profit 124-168 Euros/ha.
2.	Barley, spring	Jõgeva Plant Breeding Institute, Estonia, 2010	single foliar spray 40-80 ml/ha in stages BBCH 51-53 (boot stage)	20 m <sup>2</sup> (4 replicates)	disease severity in control was 4.1-11.4% (net blotch), 1.1-4.1% (scald)	disease severity in Albit treatment was 1.1-7.3% (net blotch), 0.0-0.2% (scald)	Albit decreased the severity of infection by 37-100% (Biological efficacy)	—	Biological efficacy of the treatment with full dose of chemical fungicide was at the same level as Albit (BE 31-100 %)	Effectiveness of Albit as fungicide controlling net blotch ( <i>Drechslera teres</i> ) and scald ( <i>Rhynchosporium secalis</i> ) was assessed. Albit was not first applied in the stage of tillering as recommended, but later at the appearance of first traits of diseases (as usually for fungicides).
3.	Barley, spring	SIA Naukšēni, Latvia, 2010	pre-sowing seed treatment 35 ml/t	10	2700	2950	250	9.3	28.6	
4.	Barley, spring	Västankvarn Experimental Farm, Inkoo, Finland, 2010	seed treatment 40 ml/t in mix with 1/2 dose of fungicidal seed treatment agent + foliar spraying 40 ml/ha in stage of tillering in mix with herbicide	0.1	2343	2528	185	7.9	2.31	In the Control, plants were treated with full dose of fungicidal seed treatment agent and herbicide. Net profit included the price of additional yield and the saving due to fungicide application rate cut by 50 %.

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5.	Barley, spring	Västankvarn Experimental Farm, Inkoo, Finland, 2011	40 ml/ha in mix with herbicide in stage of tillering	0.1	5602	5721	119	2.1	2.98	
6.	Barley, spring	Žihelský Statek, a.s., Pilsen, Czech Republic, 2010	pre-sowing seed treatment 30 ml/t + foliar spraying at stage of tillering 30 ml/ha (in mix with herbicides)	2,5	3500	4800	1300	37.1	34.7	Quicker germination of seeds; severity of root rots has reduced by 40 %
7.	Barley, spring	ZS Lojas, Latvia, 2010	pre-sowing seed treatment 40 ml/t + foliar spraying at stage of tillering 40 ml/ha	10	3500	4000	500	14.3	6.25	
8.	Buckwheat	ZS Ilzas, Aglonas novads, Latvia, 2011	foliar spray 1 time 40 ml/ha	entire farm area	1429	2000	571	40.0	14.3	Yield increase was calculated in comparison with 2010 when Albit was not applied at the farm. Following the treatment with Albit, the fields became more uniform and darker-green, no layerage was observed (as it was in 2010). Buckwheat plants were perfectly developed, grains were larger and ripened more uniformly.
9.	Flax, fibre	SIA Sakura, Latvia, 2010	foliar spray 50 ml/ha in mix with herbicide, single treatment	5	200	220	20	10.0	0.40	Yield of flax seeds
10.	Flax, fibre	SIA Sakura, Latvia, 2010	foliar spray 50 ml/ha in mix with herbicide, single treatment	10	2000	2500	500	20.0	10.0	Yield of flax straw (lint)

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11.	Hop	Školní Statek Roudnice pri Střední odborná škola Roudnice nad Labem (Hop growers' school), Czech Republic, 2010	3-fold application 50 ml/ha + 50 ml/ha + 80 ml/ha in mix with scheduled insecticidal treatments	3.84	1.22 t/ha	1.69 t/ha	0.47 t/ha	38.5	2.61	Yield of hop heads
12.	Rape, spring	Jõgeva Plant Breeding Institute, Estonia, 2011	foliar spray in stage BBCH 51 (green bud) 40 ml/ha 1 time	20 m <sup>2</sup> (4 replicates)	2338.4	2406.5	68.1	2.9	1.70	Due to the application of Albit, oil content in seeds (dry matter) increased from 46.2 to 46.4 %, oil yield from 1080 to 1117 kg/ha. Content of glycosinolates in seeds reduced from 14.2 to 13.7 mmol/kg, chlorophyll — from 4.8 to 1.9 mg/kg.
13.	Rape, spring	OÜ Kullasaare, Estonia, 2010	foliar spray in mix with herbicide 60 ml/ha 1 time	16	2400	2800	400	16.7	6.67	
14.	Rape, spring	Västankvarn Experimental Farm, Inkoo, Finland, 2011	60 ml/ha in stage of 2 leaves in mix with herbicide	0.1	2330	2354	24	1.03	0.40	Due to the application of Albit the oil content in rapeseed increased from 39.8% to 40.3%, i.e. the threshold of 40 % allowing to sell the rapeseed was surpassed.
15.	Rape, spring	ZS Ainava 1, Latvia, 2010	foliar spray 60 ml/ha in mix with insecticide, single treatment	10	2600	3200	600	23.1	10.0	
16.	Rape, spring	ZS Vaicuļevas, Latvia, 2010	foliar spray in mix with insecticide 60 ml/ha single treatment	15	2500	3000	500	20.0	8.33	Length of rape plants at the end of vegetation was 20-30 cm higher

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17.	Rape, winter	Czech Association of Oil Crop Growers (SPZO, mean results of all field trials), Czech Republic, 2010-2011	foliar spray 60 ml/ha 2 times, in combination with insecticides	0.5-1.0	3383	3705	322	9.5	2.68	Trials were conducted in Bílovice, Jizerka, Pertoltice, Krsice, Krásensko, and Luže. Average net profit from 1 hectare was 3009 Crowns (ca. 120 Euros).
18.	Rape, winter	Czech Association of Oil Crop Growers (SPZO, mean results of all field trials), Czech Republic, 2009-2010	foliar spray 60 ml/ha 2 times: in spring at the beginning of active growth, and in the stage of budding (phase 51-55)	0.5-1.0	3681	3856	175	4.8	1.46	Trials were conducted at farms of the following regions: Chrudim, Domažlice, Jihlava, Kutná Hora, Mladá Boleslav, and Písek. Average net profit from 1 hectare was 1050 Crowns (ca. 45 Euros)
19.	Rape, winter	Czech Association of Oil Crop Growers, trial at Agpi Písek (KRSICE) farm, Czech Republic, 2009-2010	foliar spray 60 ml/ha 2 times as a separate treatment (not mixed with chemical pesticide)	0.5	3360	3500	140	4.2	1.17	
20.	Rape, winter	Czech Association of Oil Crop Growers, trial at Jizerka a.s. Jizerní Vtelno farm, Czech Republic, 2009-2010	foliar spray 60 ml/ha in mix with insecticide 2 times	0.99	4000	4390	390	9.8	3.25	

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21.	Rape, winter	Czech Association of Oil Crop Growers, trial at SZ Luže farm, Czech Republic, 2009-2010	foliar spray 60 ml/ha 2 times as a separate treatment (not mixed with chemical pesticide)	0.47	3590	3820	230	6.4	1.92	
22.	Triticale, spring	OÜ Milligrupp, Estonia, 2010	pre-sowing seed treatment 40 ml/t + foliar spraying at stage of tillering 40 ml/ha	19	3500	3900	400	11.4	8.00	
23.	Vine	A. Kondratjev's Private Greenhouse, Daugavpils, Latvia, 2011	spraying with solution 3 ml/ 10 l water 3 times a season (in the stage of 4-5 leaves, before flowering in mix with insecticide, after blossoming)							Treatment with Albit lessened the shedding of ovaries and blossom, accelerated the passage of development stages by 3-5 days and ripening of the yield by 7-10 days. Protective effect of Albit against diseases lasted for 15-20 days. Albit suppressed the development of downy mildew by 50 %, powdery mildew – totally.
24.	Wheat, spring	Lapinjärvi farm, Finland, 2010	foliar spray in mix with herbicide at the stage of tillering, 40 ml/ha once	10	4800	5000	200	4.2	5.00	
25.	Wheat, winter	Agricultural Research Institute Kromeriz (Zemědělský výzkumný ústav Kroměříž), Zlin Region, Czech Republic, 2011-2012	foliar spraying 40 ml/ha 1-2 times, before and after hibernation, in stages of 3 leaves and tillering (accompanied by reducing dosages of fungicides and N-fertilizers)	0.03	6563	7070	507	7.7	12.67	It was shown that the using of intensive system with all of the recommended chemical pesticides (fungicides, insecticides, herbicides, fertilizers, growth regulators) ensured yield increase to the absolute control by 10.6% and net profit 101 Euros/ha. The application of Albit, along with reducing dosages of fungicides by 32% and N-fertilizers by 22%, granted yield increase to the abs. control by 9.8-19.2%, net profit 141-236 Euros/ha.

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26.	Wheat, winter	Borgeby Gård Experimental Farm, Malmöhus, Sweden, 2010-2011	1-2 times 40 ml/ha: foliar spraying in stage 31-32 (in mix with herbicide) and 51 (with insecticide)	0.1	11076	11155-11257	79-181	0.8-1.6	1.98-2.26	In this experiment, it was shown that even under optimal climatic conditions of the year and very high yield in control, addition of Albit to standard pesticide treatments may considerably increase the productivity. Double application of Albit is more efficient than single treatment. Net profit due to the application of Albit was 11–27 Euros/ha.
27.	Wheat, winter	Borgeby Gård Experimental Farm, Malmöhus, Sweden, 2010-2011	2 times 40 ml/ha: foliar spraying in EC stage 31-32 and 51	0.1	11076	11161-11231	85-155	0.8-1.4	1.06-1.94	Treatment with full dose of fungicide (2 times per season) served as a control. When combined with Albit, the application rate of fungicide was cut by 50 % (in 1 or 2 treatments). Net profit, which arose due to additional yield and saving on the fungicide, was 33.4–34.4 Euros/ha.
28.	Wheat, winter	State Stende Cereals Breeding Institute, Dižstende, Latvia, 2010-2011	seed treatment 40 ml/t + spraying 40 ml/ha in stage of tillering	16 x 18 m <sup>2</sup>	7270	7410	140	1.9	2.80	Both in the control and the experimental alternative 300 kg/ha of NPK fertilizers were applied. Net profit (25.2 Euro/ha) was obtained solely due to the application of Albit.
29.	Wheat, winter	State Stende Cereals Breeding Institute, Dižstende, Latvia, 2010-2011	seed treatment 40 ml/t + spraying 40 ml/ha in stage of tillering	16 x 18 m <sup>2</sup>	7270	7480	210	2.9	4.20	In the control, 300 kg/ha of NPK fertilizers were applied, while in the experimental alternative — by 15 % less. Net profit (71.3 Euro/ha) was obtained due both the application of Albit and saving on fertilizer dosage cut.