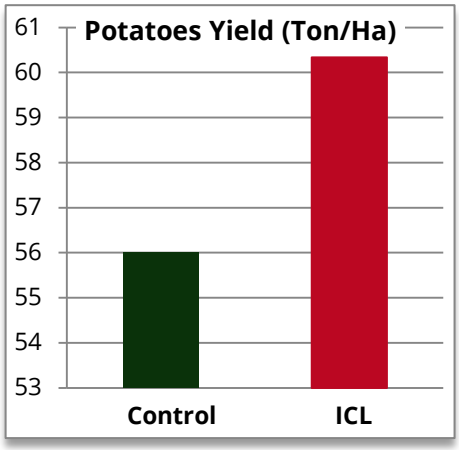
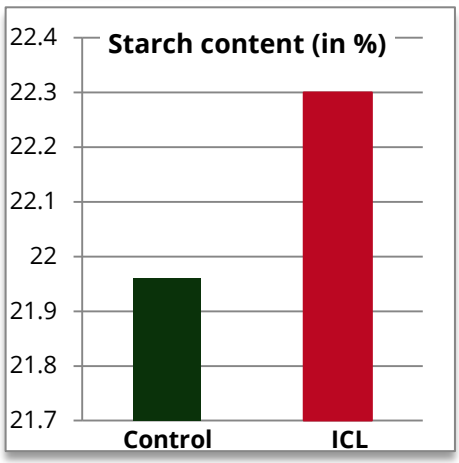
Trial Information

H2Flo™

POTATO

Picture: Karl-Johan Thim farm





H_2Flo is an unique blend of surfactants especially designed to move water and fertilizers quickly and efficiently through different types of soil.
The advances made in surfactant technology mean that this product leads the way in water conservation and provides growers and farmers with the most advanced wetting agents available.
The product can be applied as an initial wetter and also during the normal irrigation cycle where it will also aid the movement of fertilizers throughout the soil therefore balancing the EC levels. H_2Flo also prevents the hardening of water repellent deposits.
H_2Flo contains a root hair activator that helps produce stronger roots and aids plant establishment.

Trial set-up

Objective:	Demonstrate that applying H_2FLO will result in a better horizontal and vertical water penetration and therefore an increased efficiency of irrigation, resulting in a higher yield and positive return of investment.
When:	Sowing, 27/4/2015 Picking, 07/10/2015
Where:	Sweden
Crop:	Potato, Kuras (starch) variety
Soil type:	Sandy soil – less than 5% clay. PH-7. Low O.M. levels
Application method:	Boom spraying
Irrigation:	Rain guns, 9 applications. Total amount of irrigation: 225mm.
Measurements:	Yield and Starch content. Harvest measurements performed by the Swedish Society of Agriculture, Kristianstad trial.

Conclusions

- By applying H_2Flo the yield increased by **7%** and the starch content by **9%** (vs grower 's practice)
- The farm income increased by **€283 /ha** after deducting the H_2Flo costs, compared to normal farm practice

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ICL Specialty Fertilizers

Fertilizers plan in Kg/ha:

Date	Formula	Quantity	N	P_2O_5	K_2O	S	MgO	Ca	Application
13.4.15	Liquid manure	30 Tons	54	60	120	6	25		Base
19.4.15	Can -27	325 Kg	88			12		32	Base
19.4.15	0-0-30-15	350 Kg			105	63	48		Base
19.4.15	11-12-21+Micro	300 Kg	33	36	63	29	8		Base
21.6.15	Can-27	200 Kg	54			7		32	Top
			229	**96**	**288**	**117**	**81**	**64**	**Total**

* During growth period Boron and Mn were applied by foliar fertilization
* Both treatments received the same nutrition programme

Treatments

Farm Practice: No usage of water conservation/ surfactants

ICL trial area: 3 applications of H_2FLO using boom sprayers (spray volume- 1000 l/ha).
Total of 5.5 l/ha of H_2FLO: 10 May 2015, 2.5 litre H_2Flo/ha
5 July 2015, 1.5 litre H_2Flo/ha
2 August 2015, 1.5 litre H_2Flo/ha

Economic evaluation	Grower practice	ICL fertilizer plan
Potato Price (depends on starch levels)	€77,3 /ton	€78,4 /ton
Total Yield (ton/ha)	56.232 ton/ha	60.335 ton/ha
H2Flo costs (€/ha)	-	€110 /ha
Gross income (€/ha)	**€4.346 /ha**	**€4.629 /ha**

Why H_2Flo performs better?

- Rain guns apply high volumes of water in a very short time that do not penetrate the ridges. By using H2Flo most of the water penetrated the ridges. High efficiency of irrigation on sandy soils is important to prevent drought stress and thus increase the potential yield.
- With same amount of water and nutrients the use of H2Flo results in a more effective uptake of nutrients and water

Attention

Recommendations in this trial info sheet are based on local soil and/or water analyses. Please contact your local ICL Specialty Fertilizers adviser for your personalized fertilizer recommendation. Consult **www.icl-sf.com** for your contact in the region.

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