H2Flo®

Trial results

Potato *(Kuras starch variety)* on sandy soil

H2Flo 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. H2Flo also prevents the hardening of water repellent deposits.

H2Flo contains a root hair activator that helps produce stronger roots and aids plant establishment.

ICL

www.icl-sf.com

When

- Sowing, 27/4/2015
- Picking, 07/10/2015

Where

Karl-Johan Thim farm,
Kristianstad, Skåne,
Sweden

Crop

Potato
(*Kuras starch variety)*

Soil type

Sandy soil –
less than 5% clay
pH-7
Low O.M. levels

Measurements

- Yield
- Starch content

Objective

Demonstrate that applying H2FLO 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.

Treatments

Farm Practice: No usage of water conservation/ surfactants
ICL trial area: 3 applications of H2FLO using boom sprayers (spray volume- 1000 l/ha)
Total of 5.5 l/ha of H2FLO: 10 May 2015, 2.5 litre H2Flo/ha
5 July 2015, 1.5 litre H2Flo/ha
2 August 2015, 1.5 litre H2Flo/ha

Fertilizers plan (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.*

Financial evaluation

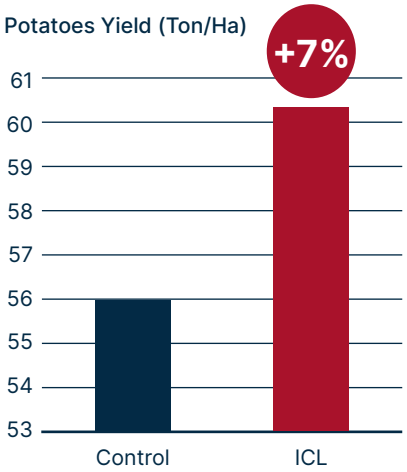
Aspects	Grower Practice	ICL plan
Potato Price (depends on starch levels)	€77,3 /ton	€78,4 /ton
Total Yield (ton/ha)	56.232 ton/ha	60.335 ton/ha
H2Flo costs (€/ha)	-	€110 /ha
Gross income (€/ha)	€4.346 /ha	€4.629 /ha

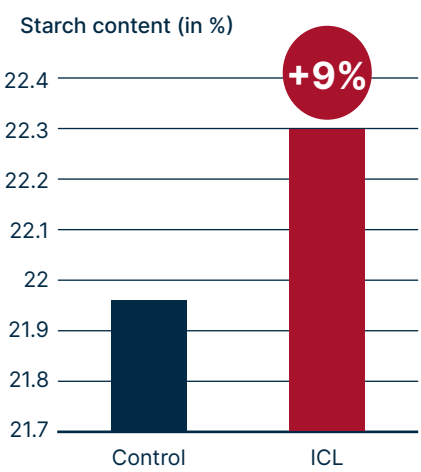
Why does H2Flo perform better?

- 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.

Conclusions:

- By applying H2Flo 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 H2Flo costs, compared to normal farm practice





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