

Trial case

Trial set-up

Objective : Demonstrate that applying H2Flo results in a reduction in irrigation volume while maintaining or increasing yield.

Location : Official trial station, France

Crop : Asparagus, variety Grolim – white

Application method : Irrigation

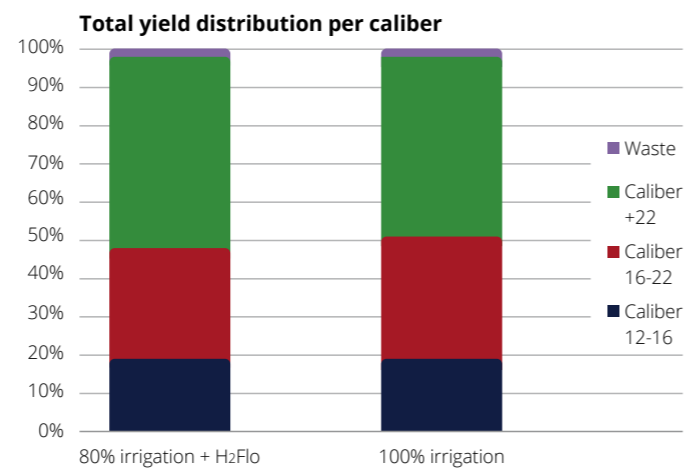
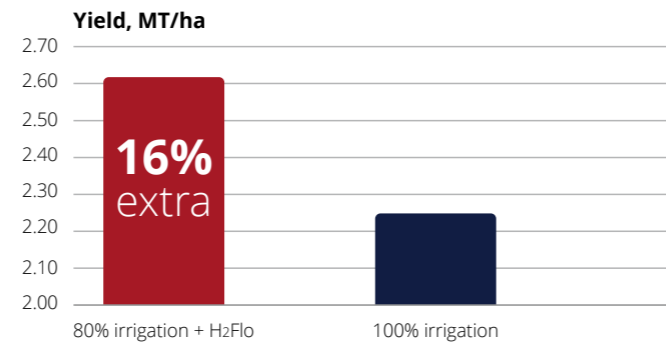
Soil type : Sandy soil

Assessments : Total yield

Treatments

Grower practice	H2Flo
The water was supplied by the irrigation system without any water conservation agents.	The addition of H2Flo to the irrigation system was done once a week, from June until October.
Treatment 100% irrigation	Treatment 80% irrigation + H2Flo
	Dosage of H2Flo 1.2 l/ha with first irrigation and 0.15 l/ha for weekly application in the period mentioned above.

Financial evaluation	80% irrigation + H2Flo	100% irrigation
Marketable yield, MT/ha	2.62	2.25
Gross income, €/ha	17.270	14.792
Extra cost of ICL treatment (vs. grower practice), €/ha	65	
Extra income/ha (vs. 100 % irrigation), €/ha	2.413	



Conclusions

- H2Flo increased the yield by 16% compared to grower practice (100% irrigation) and reduced irrigation water by 20%.
- The total yield increased, especially in the 22+ caliber.
- The yield increase with H2Flo provided an extra income of € 2.413,- /ha, compared to normal grower practice (100% irrigation). Cost savings from using less irrigation water, pumping, etc. were not calculated.

ATTENTION:

Store the product in a cool, dry and ventilated place. As circumstances can differ and as application of products is beyond our control, ICL Specialty Fertilizers cannot be held responsible for any negative results. With this publication, all previously given recommendations expire. Before a new rate, product or application method is used, a small-scale trial is recommended. H2Flo is biodegradable and is not hazardous to the environment. Ask your local ICL Specialty Fertilizers dealer or the ICL Specialty Fertilizers representative in your country for more information or recommendations. Consult www.icl-sf.com for your contact in the region.



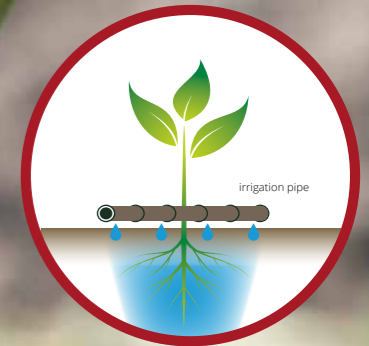
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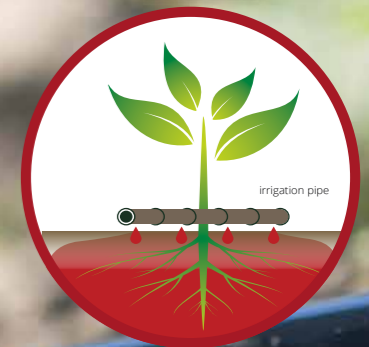
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H2Flo®



Water



Water with H2Flo

Save water, improve your yield

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Why use wetting and water conservation agent H2Flo?

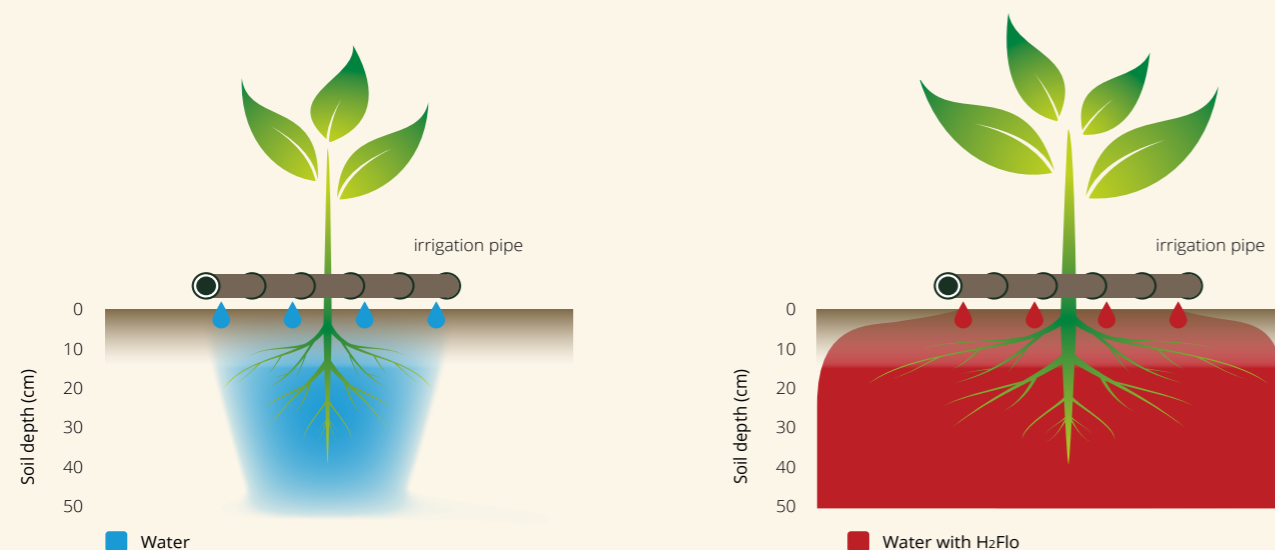
According to Aquastat, agriculture is by far the largest consumer of Earth's freshwater supply, reaching 70% of the total usage. Water is essential for every process within a plant: it is involved in vital plant functions, including root development, growth, turgor and even photosynthesis.

But the high surface and moisture tension of water can limit its infiltration into the soil and result in inefficient water use. Water puddling on the soil surface often leads to run-off and evaporative loss. In coarse textured soils, like sandy ones, high surface tension of water causes a mainly vertical flow, not wetting the soil profile uniformly. Sandy soils hold water poorly, resulting in the loss of approx. 80% of the water to run-off and evaporation.

In such situations, the soil can easily become dry and extra water is then needed to properly wet it and avoid yield losses.

Extra irrigation automatically means your costs for water, pumping and labor increase!

Extensive trials have demonstrated that using H2Flo wetting and water conservation agent allows you as a grower to reduce irrigation by up to 25%, without any detrimental effects on your yield! In areas where water is not a limiting factor, H2Flo has shown significant yield increases when applied as part of the standard watering regime.



What is H2Flo?

H2Flo is a blend of soil surfactants that reduce the surface tension of irrigation water and spread water over a larger surface area. H2Flo leads the way as a water conservation product with the highest concentration of active ingredients (88%) among the most advanced wetting agents available today.



How does H2Flo work?

When mixed with water, H2Flo reduces the surface tension, allowing water to penetrate the soil by freely spreading across the soil particles. It promotes both vertical and horizontal movement of the water, especially in sandy soils. This leads to better root system development and thus to better absorption of nutrients, while the amount of water used can be reduced considerably.

Application rate

H2Flo can be applied year-round by drip, center pivot, and overhead irrigation. Best performance is achieved in light sandy soils containing >1.5% organic matter.

(If applied via a boom sprayer please consult your local ICL Specialty Fertilizers adviser or dealer).

Timing	H2Flo rate
Pre planting / Wetting up of growing media	1.2 - 2.4 liter/ha
Initial application in crop	1.2 - 2.4 liter/ha
Monthly in crop	0.6 - 1.2 liter/ha

Benefits of H2Flo

- 1 Save up to 25%* on irrigation water without reduction in yield
- 2 Can be used in conjunction with fertilizers
- 3 Readily absorbed by all types of growing media, especially substrates
- 4 Is effective through the soil and substrate and not just at the surface
- 5 Excellent water penetration and improved horizontal and vertical water movement
- 6 Flexible application programs and flexible water rates

** Proven in official trial stations*

Proven performance

Worldwide trials in various crops show that farmers can save up to 25% of irrigation water with H2Flo.



Reduced irrigation



Yield increase



Extra income