

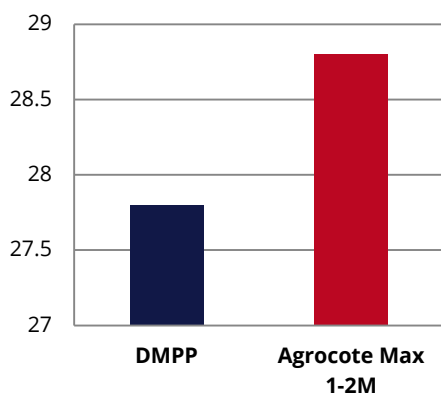
Trial Information

Agrocote[®] Max

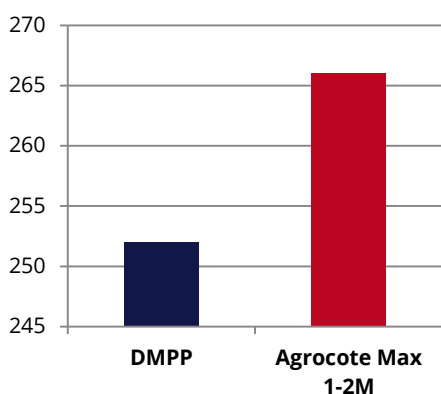
LEEK



Marketable yield, MT/ha



Mean piece weight, grams



Agrocote Max 44-0-0 is a 100% coated urea using E-Max Release Technology. This polymer coating improves the nutrient efficiency. The release of nutrients is based upon temperature, offering predictable longevities, even under extreme conditions.

Influenced by the temperature, the semi-permeable coating regulates the daily release of nutrients. At higher temperatures, the release of nutrients will be faster. At lower temperatures, it will be slower, in line with the nutritional needs of the plant.

ICL Specialty Fertilizers is keen to make a contribution to sustainable farming by enabling precision nutrition on a wide range of crops.

Trial set-up

Objective: To evaluate the yield and quality impact by using Controlled Release Fertilizers (Agrocote Max) in comparison with nitrification inhibitors based products (DMPP) for leek production.

Trial station: Official trial station, Belgium – 2016

Crop: Leek, variety Poulton

Soil type: Loamy -Sand soil

Assessments: Marketable yield
Quality and classification by sizes

Conclusions

- By using Agrocote Max, the nitrogen losses reduced significantly, increasing marketable yield by 4%
- Agrocote Max increased the percentage in Premium (Flandria) quality class and in the produce classification by sizes, leading to a positive ROI
- With Agrocote Max, an extra income of 874 €/ha was achieved vs nitrification inhibitor based products (DMPP)



Treatment	Product / Analysis (%)	Product dosage, kg/ha	Fertilizers units, kg/ha	Timing
			N	
Agrocote Max	Calcium ammonium nitrate, 27-0-0	296 kg/ha	80	Base fertilizer
	Agrocote Max, 44-0-0, 1-2M, 100% coated N	205 kg/ha	90	Top dressing
Total fertilizers units, kg/ha			170	
DMPP	Calcium ammonium nitrate, 27-0-0	296 kg/ha	80	Base fertilizer
	DMPP (nitrification inhibitor based product), 26-0-0	346 kg/ha	90	Top dressing
Total fertilizers units, kg/ha			170	

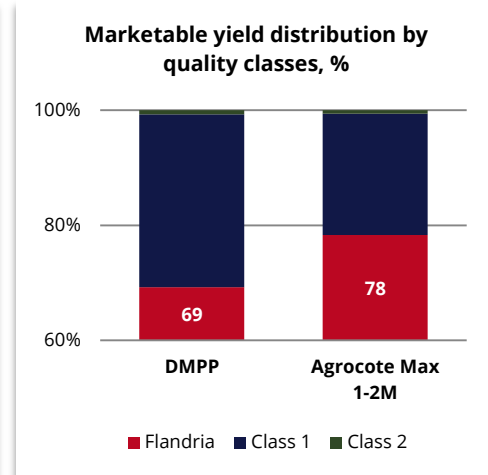
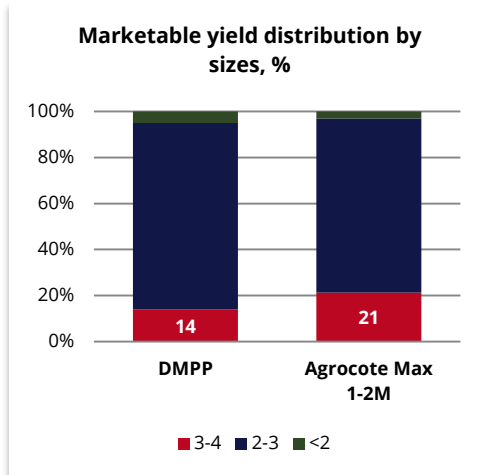
Results:

The most important parameters, in defining the profitability of a leek crop, are quality classes and produce classification by sizes.

The highest price will be paid for Flandria class and size 3-4.

Agrocote Max showed significant difference in both mean piece weight and total marketable yield, and by increasing the percentage of Flandria quality class combined with the highest % of class 3-4 as size quality, the product led to a positive ROI.

Overall Agrocote Max provided a better score improving quality parameters during the whole crop cycle (darker color, more voluminous and healthier crop)



Economic evaluation	Agrocote Max	DMPP
Marketable yield, MT/ha	28.8	27.8
Gross income, €/ha	14,608	13,684
Extra cost of ICL treatment (vs. DMPP), €/ha	50	
Extra income/ha (vs. DMPP), €/ha	874	

Economic evaluation was calculated based on REO prices at December 9th 2016

Why does Agrocote Max 44-0-0 perform better?

- By using Agrocote Max, controlled release fertilizer, the Nitrogen is released gradually, following the growth stages and contributing to higher quality.
- Controlled Release Fertilizers are reducing the Nitrogen losses by leaching, volatilization and denitrification, maintaining an optimum level of nutrients for plants to grow evenly.
- DMPP based products showed that they are unpredictable in releasing the nutrients, losing by leaching a considerable quantity of Nitrogen, fact which is also reflected in lower produce quality and poorest return on investment

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.

Distributed by:

ICL Specialty Fertilizers

P.O. Box 40 - 4190 CA Geldermalsen
Koeweistraat 4 - 4181 CD Waardenburg
The Netherlands

