



AGROMASTER®

Trial results

Maize (*Zea mays*)

Higher yields - up by 4%

Steered by soil temperature, nitrogen is released according to plant needs and improves yield by extra 500 kg/ha

Fewer applications - lower costs

A single base fertilisation with Agromaster eliminates the need for multiple fertilizer applications thus saving costs of labour and fuel, by around 35 €/ha per application

Higher NUE - up by 6%

Agromaster is more efficient than conventional N-fertilizers due to its controlled release technology. This equals an extra 42 kg of grains per kg of N applied

Positive ROI - extra 35 €/ha

Yield increase brings extra profit to growers and makes Controlled Release Fertilizers (CRF) a reliable solution to fertilize open field soil grown crops





When

Seeding:
May 26, 2023
Harvest:
October 21, 2023



Where

Castetis,
South of France



Crop

Maize, P0217



Soil type

Sandy loam
Sand: 26.6%, Silt: 59.3,
Clay: 12.7, OM: 1.4%
pH = 6.8

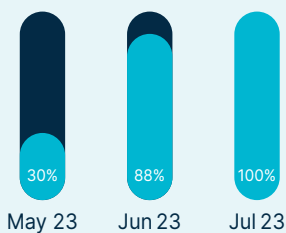


Measurements

- Grain yield
- NUE

Cumulative monthly release of N during crop cycle

Controlled release of nitrogen reduces losses by leaching, volatilization and denitrification thereby increasing its effectiveness to plants.



ICL's app – CRF Timer simulates the release of nitrogen, based on local weather conditions.

Try it yourself!



www.icl-growingsolutions.com

Objective

To evaluate whether fully coated urea, by using ICL's new biodegradable coating – **eqo.x**[®], applied at seeding, will have an influence on plant emergence. To further assess plant development till 8-10 leaves stages, without the 1st side-dressing, and the impact on final yield.

Trial station and set-up

Austria, randomized block design with 4 repetitions

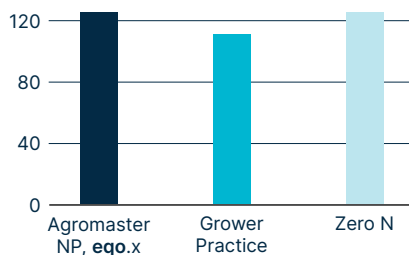
Treatments

Treatment	Product and application method	N rate, kg/ha	P rate, kg/ha	Timing
Zero N	GTSP, 0-46-0, localized	-	69	At seeding
Grower Practice	DAP, 18-46-0, localized	27	69	At seeding
	Urea, 46-0-0, side-dressing	51		V3-V4
	Urea, 46-0-0, top-dressing	122		V8-V10
Agromaster NP eqo.x	Agromaster, 20-23-0, 100% coated N by eqo.x, localized	60	69	At seeding
	Urea, 46-0-0, top-dressing	140		V8-V10

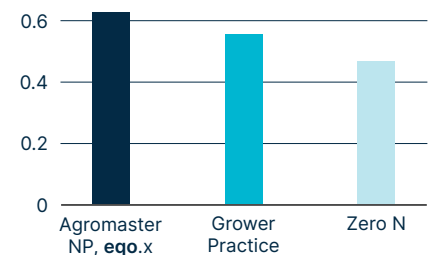
In all treatments, extra K was equally applied by using MOP.

Results

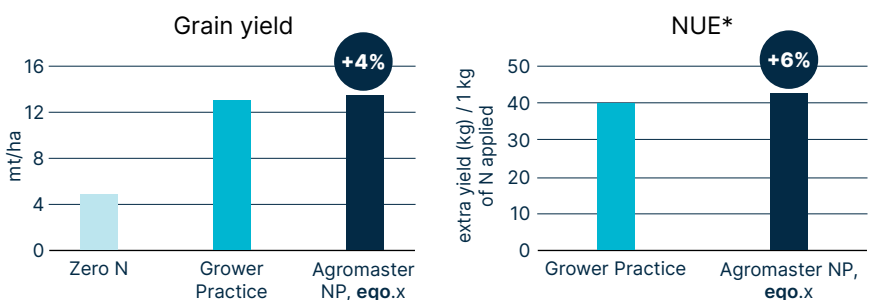
Number of plants/plot at V3-V4 stage



Vegetation Index (NDVI) at V8-V10



Agromaster NP is a safe starter fertilizer that promotes plant growth with fewer fertilizer applications, improving yield and Nitrogen Use Efficiency



*Nitrogen Use Efficiency (NUE), calculated as Agronomic Efficiency = (YF-Y0)/N applied, kg

Economical evaluation

Differences vs Grower Practice	Extra gross income	Extra cost of fertilization*	Extra gross profit
	€/ha		
Agromaster NP, eqo.x	125	90	35

* Including the cost of fertilizer applications. Economical evaluation was done based on actual market price for fertilizers used and the whole-sale price of maize.