



Agromaster[®]

Trial results

Carrots (*Daucus carota*)

Conclusions

Higher yields - up by 9%

Steered by soil temperature, nitrogen is released according to plant needs and improves marketable yield by 9% - extra 3.5 mt/ha.

Improved nitrogen uptake - up by 5.3%

Coated nitrogen is made available to plants at the right time and rate thereby nitrogen uptake is improved

Higher NUE - up by 7%

Compared to N-Inhibitors, Agromaster increased nitrogen use efficiency by 7%

Positive ROI - extra 1659 €/ha

Increase of marketable yield brings extra profit to growers and makes Agromaster a reliable solution to fertilize open field soil grown crops

N	36%
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P	0% P ₂ O ₅
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K	0% K ₂ O
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When

Seeding:
mid-February 2022
Harvest:
end of May 2022



Where

Neuhofen, Germany



Crop

Nantes carrots type
for early bunch / fresh
market
(Var. Jerada RZ F1)



Soil type

Sandy
N-min, kg/ha
0-30 cm = 9
30-60 cm = 21

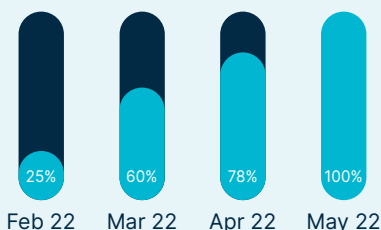


Measurements

Total and marketable
yield, N uptake

Cumulative monthly release over 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!



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Objective

To evaluate the performance of Agromaster, as controlled release nitrogen-based fertilizer, compared to double inhibited-based urea, in respect of yield and nitrogen use efficiency for carrot production.

Trial station and set-up

F. Grenzmann, Randomized block design with 4 repetitions

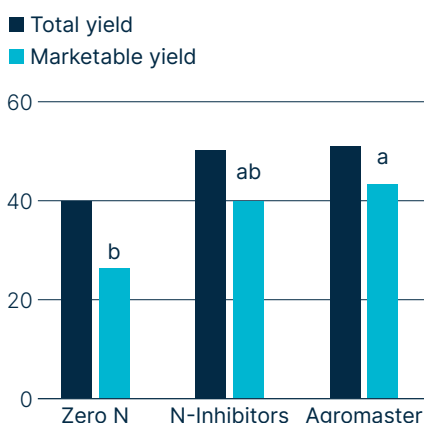
Treatments

Treatment	Products	N rate, kg/ha	Total-N mineral, kg/ha
N-Inhibitors	Double inhibited urea, 46-0-0	75+	105
	CAN, 27-0-0	35	
Agromaster	Agromaster, 36-0-0, 1-2M, 66%N	105	105

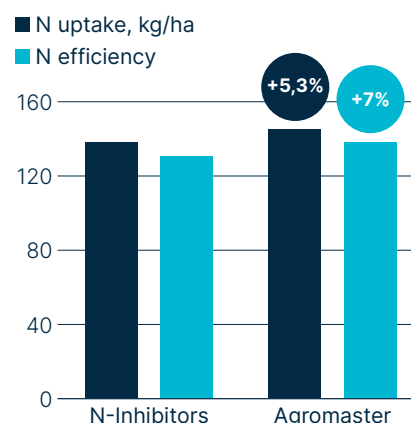
All fertilizers were applied before seeding. All treatments received same level of P and K. Agromaster was created by combining fully coated urea with CAN.

Results

Yield, mt/ha



N uptake and efficiency (PNB)



PNB – Partial Nutrient Balance, $PNB = U_H/F$. U_H – nutrient content of harvested portion of the crop. F – amount of nutrient applied

Economical evaluation

Differences	Gross income** €/ha	Extra cost of fertilization €/ha	Extra gross profit €/ha
Agromaster / N-Inhibitors	1750	91	1659

** Gross income was calculated based on estimated market price of 500 euro/mt for bunched carrots

Master crop nutrition in any condition

No matter how challenging your growing conditions, you can count on Agromaster for top performance. It combines our advanced coating technology with specially selected conventional granules to give you optimum ease of use and outstanding results.