

Plant nutrition courier

The best bits of plant nutrition research

2022-01

Nitrogen-deficient crops respond differently to molybdenum 4

Maize profits from urea-ammonium mixture 6

Crops can absorb phosphate from up to meters deep 8

pH and buffering capacity reflect nitrogen and phosphate concentration in nutrient solution 11

Biostimulant allows lower dosage of coated urea 14

Novel cereal siderophore-based chelating agent 15



Maize profits from urea-ammonium mixture 6

A mixed supply of urea and ammonium favours the nitrogen utilisation efficiency of hydroponically-grown maize seedlings.



Crops can absorb phosphate from up to meters deep 8

Deep-rooting perennial plants uplift subsoil phosphate from up to 4 meters deep.
Preparing for the insert of a stainless-steel access tube with openings under a test crop.
Photograph: University of Copenhagen.



pH and buffering capacity reflect N and P in nutrient solution 11



Novel cereal siderophore-based chelating agent 15

Arable farming

- 4 Nitrogen-deficient crops respond differently to molybdenum
- 5 Spraying potassium chloride induces disease resistance in wheat
- 5 Humic acid alleviates iron deficiency in unexpected ways
- 5 Foliar-applied urea enhances manganese accumulation in grains
- 6 Banded ammonium plus phosphate stimulates maize growth in various ways
- 6 Maize profits from urea-ammonium mixture
- 6 Nickel relieves northern corn leaf blight in maize
- 6 Short-lived residual effect of biological nitrification inhibitors
- 7 Dilution effect of elevated carbon dioxide concentrations
- 7 Trichomes differ in the absorption of foliar fertilisers
- 7 Spraying zinc sulphate causes stress in sunflower
- 7 Sulphur increases phosphate uptake via secretion of organic acids
- 7 Superabsorbents from organic waste
- 8 Crops can absorb phosphate from up to meters deep
- 8 Single catch crop equals catch crop mixture under moist and fertile conditions

Potato nutrition

- 9 Robust spectral indices for nitrogen fertilisation in potato
- 9 Granular fertiliser as carrier for inoculants
- 9 Publications about potato nutrition research

Fruits and vegetables

- 10 Nitrogen improves a crop's cooling capacity
- 10 Pineapple profits from foliar-applied urea plus urease inhibitor
- 10 Nickel improves nitrogen metabolism in tomato
- 10 Calcium protects pear against fungal disease

Ornamentals

- 10 Calcium oxide nanoparticles extend vase life of gerbera cut flowers
- 10 Struvite tested as potting soil fertiliser

Plant and soil analytics

- 9 Robust spectral indices for nitrogen fertilisation in potato
- 11 pH and buffering capacity reflect nitrogen and phosphate concentration in nutrient solution
- 11 Nutrients: from physiological functions to deficiency symptoms
- 12 Carbon isotope composition predicts wheat response to nitrogen top dressing
- 12 Silicon isotope ratios reflect silicon uptake strategy
- 12 Foliar copper isotope ratios reflect grapevine exposure to soil copper
- 12 Isotope fractionation shows rice's preference for iron source
- 12 Light-emitting carbon dots as a measure of soil organic matter content
- 12 Critical potassium concentrations for soybean from R1 growth stage

Fertilisers

- 9 Granular fertiliser as carrier for inoculants
- 13 Tine tip width affects slurry nutrients utilisation by maize
- 13 Urea coating shifts nitrogen loss from ammonia to nitrous oxide
- 14 Biostimulant allows lower dosage of coated urea
- 14 Granular urea with dual coating
- 15 Novel cereal siderophore-based chelating agent
- 15 Analytical method for new chelate
- 15 Iron foliar fertiliser with nanocrystal cellulose as chelating agent
- 15 Polyester-sulphur-coated urea enhances rice grain iron content
- 16 Soil pH affects effectiveness of phosphate solubilizing bacteria
- 16 Publications about new, experimental and potential fertiliser formulations

Literature / calendar

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- 16 Publications about new, experimental and potential fertiliser formulations
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Publications about plant nutrition research

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Fertiliser companies



Agricultural cooperatives

(Dutch - with international network of subsidiaries)



Fertiliser research



Liquid fertiliser applicators



Soil services



Mycorrhizae



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Colophon

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