# Plant nutrition courier

The best bits of plant nutrition research 2022-02

# Grain straw undervalued amendment for drought-prone soil 32

Low late-season foliar fertiliser dose used as biostimulant 4

lodine biofortified lettuce investigated for possible anticancer effects 6

Fertiliser additives selected using sophisticated statistics 7

In search for the Achilles' heel of the nitrification process 13



# Low late-season foliar fertiliser dose used as biostimulant 4

Low-dose, late-season foliar fertilisation can have biostimulatory properties in well-fertilised crops. This phenomenon is observed in field experiments with maize and soybean.



lodine biofortified lettuce investigated for possible anticancer effects



Fertiliser additives selected using sophisticated statistics



In search for the Achilles' heel of the nitrification process 13

### Arable farming

- 4 Low late-season foliar fertiliser dose used as biostimulant
- 5 Editorial: Usefulness of stimulatory supplementary foliar fertilisation of wellfertilised crops is shrouded in mist
- 5 High phosphate rate increases risk of excess manganese intake via whole-grain
- 6 Release of iron-mobilising compounds differs greatly for soil and nutrient solution
- 6 Urea increases liming effectiveness on no-till soils
- 6 Nitrogen status affects potassium deficiency in oilseed rape
- 33 Silicon seed coating improves maize performance on saline soil

#### Potato nutrition

6 Tuber treatment with calcium chloride limits dry rot damage in potato

## Fruits and vegetables

- 6 Iodine biofortified lettuce investigated for possible anticancer effects
- 34 Silicon reduces nematode damage in lettuce
- 34 Silicon sprays protect peach against brown rot

# Plant and soil analytics

- 6 Chlorophyll density pattern reflects nutrient status
- 6 Nitrogen status affects potassium deficiency in oilseed rape

# **Fertilisers**

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- 7 Granular urea with phosphate coating
- 7 Experimental fertiliser combines iron and manganese with phosphate
- 8 Dust-free process for production of large urea granules
- 8 Local ammonia production scrutinised
- 8 Plasma treatment enriches soil with ammonium nitrate
- 8 Nitrogen and potassium solutions from livestock slurry
- 8 Ammonium bicarbonate harvested from piggery air
- 8 Magnesium-coated biochar improves performance of phosphate-solubilising bacteria
- 8 Insect frass examined for fertiliser value
- 9 Sugar alcohol improves zinc foliar fertiliser performance
- 9 Comparative research on fertilisers needs multiple nutrient rates applied
- 9 Publications about new, experimental and potential fertiliser formulations

# Nitrification and urease inhibitors

- 13 In search for the Achilles' heel of the nitrification process
- 14 Crop residues reduce urease inhibitor effectiveness

# Silicon

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- 34 Seed priming with silicon to prepare plants for micronutrient deficiency
- 34 Silicon seed coating improves maize performance on saline soil
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Fertiliser companies









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# Colophon

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