

# **Plant nutrition courier**

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**The best bits of plant nutrition research**

**2019-03**

## ***Silicon benefits unstressed rapeseed 31***

***Subsurface fertiliser banding reduces winter loss of nutrients 4***

***Single threshold leaf SPAD value for different potato cultivars 6***

***Yield-based nitrogen fertiliser recommendations under criticism 8***

***Deep-rooted crop irrigates shallow-rooted intercrop via mycorrhizal network 12***



## Subsurface fertiliser banding reduces winter loss of nutrients 4

Tile drains play an important role in nutrient loss. Canadian researchers advise to band fall-applied fertiliser below soil surface to reduce leaching via preferential flow. Subsurface banding also reduces phosphorus loss in rain and snowmelt runoff.



## Single threshold leaf SPAD value for different potato cultivars 6

SPAD<sub>L4-8</sub> can be applied as a general index of nitrogen status across different potato cultivars, according to Chinese researchers.



## Yield-based nitrogen fertiliser recommendations under criticism 11

The '1.2 rule' for nitrogen fertiliser application has guided many American agricultural researchers, consultants, extension agents and farmers for decades. Agricultural economists at the University of Illinois suggest an alternative approach to develop future fertiliser recommendations.

*Pocket knife with the '1.2 rule' slogan.*

*Picture: David Bullock, University of Illinois*

## Arable farming

- 4 Subsurface fertiliser banding reduces winter loss of nutrients
- 5 Cover crop mixtures for nitrate catching and nitrogen supplementation
- 5 Tillage frequency affects nitrogen release from green manure
- 5 Light stimulates roots to take up more nitrate
- 5 High zinc content in seeds increases stress tolerance
- 5 Better Crops finishes with phosphorus special
- 31 Silicon benefits unstressed rapeseed
- 31 Silicon over-fertilisation may increase risk of sodium stress on sodic soil
- 31 Rice benefits from silicon at high daytime temperature

## Potato nutrition

- 6 Single threshold leaf SPAD value for different potato cultivars
- 6 Publications about potato nutrition research

## Fruits and vegetables

- 7 Nano-pyrite root priming improves root system
- 7 Urea and adjuvants counteract apple scab
- 7 Ammonium-nitrogen to meet blueberry's low pH preference

## Turfgrass

- 8 Iron nutrition with granular turfgrass fertilisers examined
- 31 Silicon improves wear tolerance of grass

## Plant and soil analytics

- 6 Single threshold leaf SPAD value for different potato cultivars
- 7 Device and method for cation and CEC measurements
- 7 Extraction methods to measure the chemical reactivity of low-grade rock phosphate
- 7 Online platform for multivariate analysis
- 8 Yield-based nitrogen fertiliser recommendations under criticism

## Fertilisers

- 8 Iron nutrition with granular turfgrass fertilisers examined
- 9 System for applying labelled anhydrous ammonia in field experiments
- 9 Slow-release formulation for nitrification inhibitor
- 9 Experimental urease inhibitors reviewed
- 9 New coatings for granular urea
- 10 Molecular weight determines polyaspartic acid performance
- 10 Acidifying fertilisers enhance phosphorus release of sewage sludge ash
- 10 Citrate desorbs phosphate best in soils low in calcium
- 10 Phosphate rock activation
- 10 Publications about new, experimental and potential fertiliser formulations

## Mycorrhizae and other beneficial microorganisms

- 12 High phosphate level can reduce plant growth via altered microbiome
- 12 Deep-rooted crop irrigates shallow-rooted intercrop via mycorrhizal network
- 12 Mycorrhizal inoculants branded as invasive species
- 12 Sub-lethal glyphosate levels affect wheat fungal symbionts

## Silicon

- 31 Silicon benefits unstressed rapeseed
- 31 Silicon over-fertilisation may increase risk of sodium stress on sodic soil
- 31 Rice benefits from silicon at high daytime temperature
- 31 Silicon improves wear tolerance of grass
- 32 Recent silicon publications

## Literature / calendar

- 6 Publications about potato nutrition research
- 10 Publications about new, experimental and potential fertiliser formulations
- 13 Publications about plant nutrition research
- 32 Recent silicon publications
- 33 Calendar of events

<b>Publications about plant nutrition research</b>		<b>from page 13</b>
General	13	Phosphorus 23
Biofortification	13	Phosphite 24
Greenhouse gas emission	13	Potassium 24
Climate change	13	Calcium 25
Glyphosate	14	Lime / pH 26
Mapping, sensing, sampling and analytics	14	Magnesium 26
Application technology	15	Sulphur 27
Foliar fertilisation	16	Boron 27
Chelates	16	Chloride 27
Organic fertilisers and industrial wastes (selection)	16	Copper 27
Green manure / cover crops	17	Iron 28
Biochar	17	Manganese 28
Humic acids	18	Sodium 28
Nano-fertilisers	18	Zinc 28
Nitrification and urease inhibitors	18	Selenium 29
Specific release	19	Rare earth elements 29
Nitrogen	19	Rhizobia, mycorrhiza etc. 30

Fertiliser companies



Agricultural cooperatives  
(Dutch - with international network of subsidiaries)



Liquid fertiliser applicators



Fertiliser research



Trial equipment



Soil services



Biostimulants



Mycorrhizae



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Editor	<a href="#">Gert van den Berg</a>
Publisher	Landbouwkundige Uitgeverij G.C. van den Berg
Address	Van Maerlantstraat 5, 3906 EL Veenendaal, The Netherlands
Website	<a href="http://www.plantnutritioncourier.nl">www.plantnutritioncourier.nl</a>
Subscriptions	Small: € 125,00/year ex VAT (1 - 10 readers at one physical location of the organisation). Medium: € 375,00/year ex VAT (11 - 50 readers at multiple physical locations of the organisation). Worldwide: € 825,00/year ex VAT (worldwide in-company subscription).
Single issues	€ 40,00/issue ex VAT.

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