Layer-wise Agglomerated Urea Granules

Track Code: 2018-AMBR-68207

Categories:
- Agriculture

Keywords:
- environmental
- Fertilizer
- Nitrogen
- Pollution
- slow-release
- sulfur
- urea

Urea granules hydrolyze in the presence of soil moisture and the rate increases when moisture penetrates through micropores in the granules.

Researchers at Purdue University have found through this disclosure that a larger solid fraction decreases the urea release rate from the agglomerated granules. They have agglomerated urea granules with radial solid fraction gradients in order to control the urea release characteristics. The dissolution rate is 80% slower than market urea, which matches crop nitrate demand.

Advantages:
-80% slower dissolution rate than market urea
-High domestic and international market value
-Inexpensive

Potential Applications:
-Crop fertilization

People:
- Ambrose, Rose Prabin Kingsly (Project leader)
- Chen, Yanjie
- Pai, Dhananjay
- Wassgren Jr., Carl R

Intellectual Property:

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Contact OTC:

Purdue Office of Technology Commercialization
The Convergence Center
101 Foundry Drive, Suite 2500
West Lafayette, IN 47906

Phone: (765) 588-3475
Fax: (765) 463-3486
Email: otcip@prf.org