

Nutrients and High Yields: Need for Concern? (S08-hatfield102816-Oral)

Authors:

- J.L.Hatfield - *USDA-ARS National Soil Tilth Laboratory*
- J.F.Angus - *CSIRO*

Abstract:

Increasing demands for grain production for use as food will increase as the world population increases. At the same time there is a decrease in the amount of cultivated land for grain production. This dictates an increase in yield per unit area and more inputs into crop production, i.e., fertilizer. There is concern that increased amounts of fertilizer will lead to increased environmental risk. An evaluation of the trends in nitrogen fertilizer applied around the world reveals that China and Southeast Asia are the two regions with the greatest increase in N fertilizer used over the past 20 years. Managing nutrients for high yields will require more tools to aid in the decision-making process. Increasing crop yield and fertilizer inputs without increasing environmental risk can be achieved through improved management techniques that focus on the efficiency of nutrient utilization and quantifying the risk with nitrogen management decisions.

Corresponding Author Information:

Jerry Hatfield
USDA-ARS National Soil Tilth
Laboratory
2150 Pammel Drive
Ames, IA 50011

phone: 515-294-5723
fax: 515-294-8125
e-mail: hatfield@nssl.gov

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