



Who We Are: TFI Mission Statement

- TFI seeks <u>optimum plant nutrition</u> for an abundant, economical, safe and nutritious food and fiber supply.
- We also seek to encourage farmers and their advisers to responsibly <u>protect</u> and <u>improve air</u> <u>and water quality</u>.

The Fertilizer Lessin

Presentation Overview I. The Global Food Crisis II. What are Nutrients Managing Agricultural Nutrients for Economics III. and Environment Nutrient Management Planning a. b. Toolbox IV. Review of Factors Driving Nutrient Use **Bioenergy Production** a. **Energy Costs** b. World Fertilizer Demand c. The Perifikan Instit



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A A A A A A A A A A A A A A A A A A A	Essential to Im	proved Soil Fertility				
	•For arid and semi-arid regions a stronger ceiling on yield than	results show that nutrient limitations set water availability.	A LA			
	•In much of Africa, fertilizer us fertility and water management agriculture can double or quadr	se is low. With improvements in soil t, yields in West African rain-fed ruple.	A LA LA			
	Developing country fertilizer use					
and the second	– Sub-Saharan Africa	9 kg/ha				
-	 Latin America 	73 kg/ha				
	– South Asia	100 kg/ha				
	- East and Southeast Asia	135 kg/ha	144			
	– Western Europe and U.S.	>250 kg/ha				
	Source: Molden, David. 2007. Water for F Water Management. Earthscan, London.	Food, Water for Life: A Comprehensive Assessment of				









Nitrogen Use Efficiency (NUE)

Nitrogen-use efficiency is the proportion of all nitrogen (N) that is removed in harvested crop biomass, contained in recycled crop residues and incorporated into soil organic matter and inorganic N pools. Nitrogen not recovered in these N sinks is lost from the cropping system and thus contributes to reactive N external to the agroecosystem.

Source: Cassman et al., 2002

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crop	Region	No. of sites	N check, % of opt. yd	Net return to N, \$/A
Soybean	IA	147	71	188
Soybean	Central IL	148	58	281
Corn	IA	73	44	326
Corn	Central IL	53	49	315



















Managing Fertilizers in Agriculture

• The North American fertilizer industry has a long history of partnering with its farmer customers and the more than 13,000 Certified Crop Advisers (CCAs) to ensure maximum crop productivity, while protecting water quality, soil quality and the environment.

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