Ending Hunger: Can we achieve humanity’s elusive goal by 2050?

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Yes, but we need **more** with less

- **More** food with less resources
- **More** productivity and less environmental impact
- **More** income and less poverty
MARKET
“THE NEW CONSUMER”
Lloyds food system shock scenario
Wheat production losses
Wheat production losses

Pakistan: 10%
India: 11%

Drought

Low Monsoon

FOOD SYSTEM SHOCK SCENARIO
Wheat production losses

Australia: 50%

Pakistan: 10%

India: 11%

Drought

Low Monsoon

FOOD SYSTEM SHOCK SCENARIO
Wheat production losses

Food System Shock Scenario

- USA: 7%
- Pakistan: 10%
- India: 11%
- Australia: 50%

Drought
Flooding

Low Monsoon
Wheat production losses

- USA: 7%
- Australia: 50%
- Russia: 10%
- Kazakhstan: 15%
- Low Monsoon
- Ukraine: 15%
- Turkey: 15%
- Pakistan: 10%
- India: 11%

FOOD SYSTEM SHOCK SCENARIO

Drought
Flooding
Ug99
Wheat production losses

- **Drought**
  - USA: 7%
  - Turkey: 15%
  - Ukraine: 15%
  - Kazakhstan: 15%
  - Russia: 10%

- **Flooding**
  - Ukraine
  - Pakistan: 10% +5%
  - India: 11% +5%

- **Ug99**
  - Australia: 50%
Price increases

Global production losses

- Wheat: 7%
- Maize: 10%
- Soybean: 11%
- Rice: 7%

Price increases: x4

Impacts

Human cost

- Humanitarian crisis
- Food riots
- Stock market losses
  - 10% in EU
  - 5% in US

Human cost:

10% in EU
5% in US
How?

- Sound agronomy and crop science
- Innovative agricultural technologies
- Enabling public policies

By implementing a sustainable intensification strategy
Crop science to **INCREASE**

- Disease resistance
- Nutritional value
- Yield potential
- Heat and drought tolerance
Sound agronomy for

- Efficient use of natural resources
- Soil and environmental conservation
- Sustainability
Growing improved crops without agronomy is like running a sports car on gravel roads.
Innovative agricultural technologies

Postharvest Solutions

Smart Mechanization

Precision Agriculture

ICT

Desulfurobacterium thermolithotrophum (AJ001049)

(Ceja-Navarro et al., 2010)
There is more technology in a **vending machine** than in a **planter**
How can you help?

Train

Innovate

Specialize

Let’s make agriculture sexy

Thank you!