A Noble Ambition: Feeding a Hungry World
Connecting Talent Capacity to Increased Productivity
Connecting Talent Capacity to Increased Agricultural Productivity

Panelists:
- Dr. Thomas J. Herlehy, Land O’ Lakes
- George Nfedt, PANNAR SEED
- Vito Rugani, Greenway Farms (Pty) Ltd.
Statement of the Problem

Can we feed a hungry world of some 9 billion people by 2050?

Is it possible?
“The world has the technology — either available or well-advanced in the research pipeline — to feed a population of 10 billion people. The more pertinent question today is whether farmers and ranchers will be permitted to use this new technology.”

-Dr. Norman Borlaug
We can feed a hungry world of some 9 billion people by 2050!

But we need to improve the human capacity to adopt modern farm management practices and use new technology in a sound and correct manner in order to raise agricultural productivity.
Agricultural Productivity

There are huge gaps in productivity between OECD (industrialized) countries and the developing world.

OECD = Organization for Economic Cooperation & Development (34 countries) – see: www.oecd.org
US Agricultural Productivity

In the 1930s, the average US farmer fed 10 people.

In 2005, the average farmer fed 150 people; today perhaps 200 people.

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US Agricultural Productivity

Corn yields:
- 1930 – 20 bushels/acre
- 1960 – 55 bushels/acre
- 2011 – 150 bushels/acre

Wheat yields:
- 1930 – 14 bushels/acre
- 1960 – 26 bushels/acre
- 2011 – 45 bushels/acre

Per-cow milk production
- 1930 – 4,500 lbs./cow
- 1960 – 7,030 lbs./cow
- 2011 – 20,450 lbs./cow

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Agricultural Productivity:
Global grain yields
Developing Country Agricultural Productivity

Average per acre productivity for corn, wheat, rice, is only 25-30% of that of the USA and OECD nations.

Why?
Developing Country Agricultural Productivity

**Hybrid seeds** – only 33% of all African farmers use hybrid maize (corn) seed; only 47% in India.

**Fertility treatments** – only 5 kg. per acre in Africa vs. almost 100 kg. per acre worldwide.

**Crop protection products** (herbicides and fungicides) – low use in Africa.

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Education – Knowledge and Skills

Farming as a business – not a way of life.

Adopt modern business practices on the farm.

Give farmers choices – provide science-based information and let farmers choose what technology to use.
Education – Knowledge and Skills

Literacy and numeracy skills

English language skills

Analytical skills

Writing skills

Public speaking skills
Education – Knowledge and Skills

Policy makers: only 12 of 535 Members of Congress have an agr background:

- 3 ranchers
- 3 organic farmers
- 2 veterinarians
- 2 vintners
- 1 dairy worker
- 1 fruit orchard worker

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Education – Knowledge and Skills

Consumers – Voters

The challenge:

Are we going to make decisions based on emotion, opinion and nostalgia?

or

Are we going to make decisions based on accurate data and sound science?

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Panelists:

Talent

Knowledge & Science

Skills to apply knowledge correctly

Challenges & Solutions

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Open Q & A session

Thank you!!