

# CAN CORN DELIVER?

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DuPont Pioneer (retired)

Corn represents a wonderful story on productivity and economic development in the Americas and other agricultural areas. From the grass Teosinte in Mexico and 10-12 K thousand years, we have a very productive crop. Yields have continued to improve for the last 70 years (4X) based on plant breeding and improved agronomic practices. Biotechnology has contributed to agronomic improvements such as insect protection and herbicide resistance, and we are on the brink of expanded benefits such as drought resistance, content modification, and yield improvements. Will corn have the capacity to sustain yield improvements, agronomic traits, and nutrition, energy, and health stacking? Will you be able to add enough value to make U.S. corn worth a trillion dollars?

Corn at the production level in the U.S. generally varies from 80-90 M acres per year and the value at the farm level in our improved agricultural economy is \$50-60 B. Corn has proven to be a major economic engine for industries such as seed, agricultural chemicals, fertilizer, farm equipment, processing, and biotechnology.

Rather than try to talk genetics, I will focus on my experienced in agricultural business and share some lessons on the R&D and business interface in both large and small companies.

1. Let me share my first agriculture memories
  - a). Rooster/flogging/time to select chicken for Sunday dinner/Guess who I selected.
  - b). Weeds: Corn had competitors such as cockleburs and Jimpson weeds. I helped from an early age.
  - c). Old M IH
2. After College
  - a). Crop Protection
  - b). HOC license from U of I (DE Alexander, Holdens, and Pfister)  
Law suit
  - c). Monsanto acquisition of Holdens/Goldman Sacks proposal/ lunch with Pioneer

Vision:

1. \$10B enterprise in the food chain
2. Back in the 1990s

LIFE' Lessons in Business/Technology; starts with an edu and some skills

1. Hard work and continuous growth

2. Value people; respect, communicate, support, partner on projects
3. Learn language of top management: generally not genes, acres, lbs but Dollars, profit and market share
4. Build a network to get an understanding of customer needs; farmer, processor, others downstream
5. Ethics

#### Fading Footprint for Farming Food

1. Globally 65% less land used to produce the same quantity.
2. Except for energy 3.4% land use would be down
3. Expectations that total land use for ag will go down

#### RETIREMENT; 1<sup>st</sup> major failure; flunked out after 4 yrs; just needed a sabbatical to renew: ABN

1. Retired in 2001; invested in a start up called ABN
2. Survived for five years as a retiree
3. Flunked out in 2007
4. ABN Board asked if I would lead ABN
5. Small but great science and focused on customers
6. We stabilize, protect, and deliver difficult bioactives
7. Three verticals: Oral vaccines, probiotics for humans and animals, microbials for seed treatment. Invasive species
  - Salmon Chile: enabled new use
  - Probiotics: Logs loss

#### Illinois Support

1. Turner Hall: like to put a plug in for support for the Turner Hall renovation.
  - a). 50 and it shows it;
  - b). Grandson visit
  - c). Personal experience in Turner: Classes and Field and Furrow Club
  - c). \$10M minimum; U of I \$5.0M; alumni/corporate/expanding
  - d). personal gift

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## **Agriculture Memories/Southern Illinois**

**1. Rooster**

**2. Weeds in Corn**

**3. Model M IH**

# CORN RELATIONSHIPS

- 1. D.E. Alexander/Advisor**
- 2. Crop Protection/Dupont**
- 3. High oil corn license/ U of I**
- 4. Partnerships: Holdens, Wyffels, Pfister**
- 5. Law suit**
- 6. Monsanto / Holdens**
- 7. Pioneer**

# BUSINESS/TECHNOLOGY INTERFACE

1. People:value, respect, partner on projects
2. Language of top management
3. Project or concept leadership
4. Build network to customer' customer needs
5. Understand the vision

# TRILLION DOLLARS

- 1. Tough to get there with agronomic traits and yield**
- 2. Need to impact downstream Values**

# Second Career

- 1. Retired 2001; invested in ABN**
- 2. Flunked out in 2007; ABN Board Request**
- 3. ABN is small but great science, customer focus, nimble**
- 4. Stabilize, protect and deliver difficult bioactives**
- 5. Businesses; Oral vaccines, probiotics, seed treatment, and invasive species**

# TURNER HALL

- 1. 50 Years and it show every day**
- 2. Grandson college visits**
- 3. Personal experience in Turner: classes and Field and Furrow C**
- 4. Campaign: \$10 Million minimum; U of I \$5.0 M jumpstart**
- 5. Personal gift**