



# U.S. soybean production 1996-2010

**Ron Moore, Illinois**  
American Soybean Association  
FEFAC June 11, 2010  
Hamburg, Germany

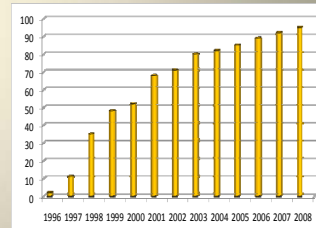
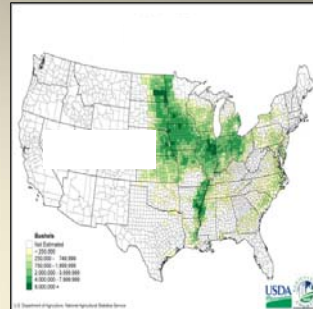


**Roseville  
Illinois**



## U.S. Soybean Production

- U.S. soybean growers adopted biotech soybeans cautiously at first - but today production is 92% biotech
- More than 50% of total U.S. production is used domestically
- The 2009 harvest was an all time record of 91 million tonnes from 30 million hectares



## Why We Use Biotech Crops On Our Farms

### No-till + herbicide tolerant soybeans

Herbicide tolerant biotech soybeans means more flexibility in weed control

We can make more use of conservation tillage practices (e.g. no-till and reduced tillage) by planting seeds through the previous year's crop stubble

This old-crop residue creates a mulch layer which encourages earthworm and soil microbes and improves soil structure



## Why We Use Biotech Crops On Our Farms Environmental & Sustainability Benefits

- **No-till + biotech helps to**
  - Reduce soil erosion & surface impact
    - 1 billion tonnes/year saved
  - Improve soil health /increase organic matter
    - More carbon & nutrients kept in soil
  - Reduce greenhouse gas emissions
    - 3.3 million tonnes less CO<sub>2</sub> released by 2020
    - Every litre saved reduces CO<sub>2</sub> emissions by 10kgs
    - Decrease in CO<sub>2</sub> emissions using no-till in 2008 equivalent to removing 125,750 cars from the road
  - Reduce water loss
    - Runoff reduced by 99% with no-till v traditional
  - Increase birdlife & beneficial insects



## Why We Use Biotech Crops On Our Farms

### Safer

- **Herbicide tolerant**
  - Reduces toxic chemicals
    - Annual herbicide use 11 million kgs less in biotech soybean production
    - Resulted in €1.2 billion annual production cost savings
  - Fewer sprayings
  - Less toxic weed seed
- **Insect resistant (maize)**
  - Chemical treatments not needed on Bt. maize seed
  - Mycotoxin 30-40 times lower than conventional maize



## Why We Use Biotech Crops On Our Farms

### Profitable

- No-till + GM soybeans allow
  - Fuel & labor savings
  - Herbicide savings
  - Smaller tractors
  - Narrow row planting
- Average costs savings in 2008 = \$82.70/ha (€60/ha)
- Total increase in soybean farm incomes in 2008 = \$1.36 billion (€970 million)

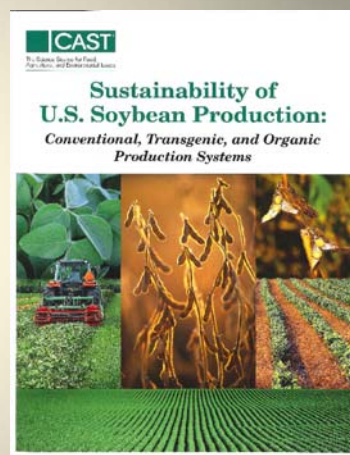
*Source: PG Economics UK 2009*



*American Soybean Association*

## 2009 CAST Publication

- The Council for Agricultural Science & Technology (CAST) carried out an 18-month study for the United Soybean Board to:
  - Address the ecological impacts of various U.S. soybean production systems
  - Compare the sustainability of conventional, organic and biotechnology-derived production systems



*ASA*

## Main Conclusions 2009 CAST Report

- Biotech soybean production systems are the new conventional soybean production system
- Traditional soybean production systems will decline
  - Reasons
    - Lack of herbicide availability
    - Lack of price premiums
    - Lack of non-biotech varieties
- Organic soybean production is sustainable but . . .
  - Price premium of \$333 tonne+ required for profitability
  - Weed control challenges
  - Reduced yields ( $\approx 2.8$  t/ha for organic vs. 4.6 t/ha for non-organic)



## Current Soybean Production Issues

- Operational
  - Weed resistance to glyphosate
  - Reduced development of non-biotech varieties
- Technology
  - Small number of technology providers
- Trade
  - Asynchronous approvals and low level presence issues leading to trade disruptions



## Next Generation Soybeans

2009

- Liberty Link
  - Alternative herbicide to glyphosate
- RoundupReady2Yield
  - Higher yield potential
- High oleic soybean
  - Increased levels of oleic acid reduces transfats

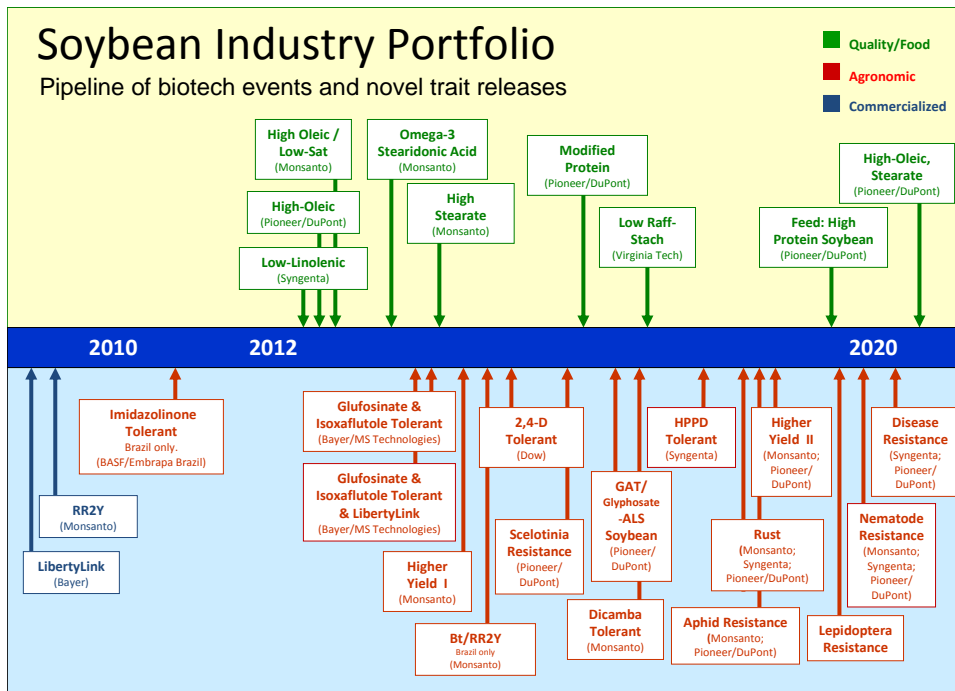
Next 3 to 5 years

- High omega-3
  - Much increased omega-3 levels for improved human health
- High stearic acid
  - Up to six times more than conventional with improved food processing benefits through reducing harmful fats



## Soybean Industry Portfolio

Pipeline of biotech events and novel trait releases



Source: Pipeline from Industry Sources; prepared by ASA, USSEC, USB. Updated January, 2010

## U.S. Growers Will Use New Biotech Crops



### U.S. soybean growers' position

- U.S. soybean growers support for domestic commercialization of a new biotech product which **has not** received relevant overseas regulatory clearance, will be based on:
  - ✓ The potential benefits of the new biotech event;
  - ✓ The projected effects on the profitability and competitiveness of U.S. soybean farmers;
  - ✓ The size of the relevant potential export market;
  - ✓ Whether or not the relevant export market has a functioning & timely biotech approval system.



## U.S. soybean growers & the EU

- Dedicated EU offices for more than 50 years
- Availability of technical and marketing experts
- \$5 million+ on EU biotech issues since 1997
- 2,600+ meetings with EU contacts since 1997
- 600+ EU contacts visited St Louis since 1998
- Since September 2007:
  - Working with FEFAC & others on async & AP issues
  - Meetings in 12 Member States Sept – Nov, 2007
  - Trips to a further 12 EU Member States in 2008
  - Dissemination of regular bulletins and information



## The Future EU Soy Protein Supply

“80% of soybeans produced around the world are GMOs, meaning there are major problems ahead if the EU is to continue to source its soya-based feed only from non-GMO crops and a handful of authorized biotech varieties. If we can't rely on it at competitive prices we'll kill our meat production”.

*Former Agriculture Commissioner,  
Mariann Fischer Boel to the  
European Parliament  
September 1, 2009*



## U.S. Soybean Farmers & EU Customers Share The Same Concerns On Soy Protein Supplies

- We are both caught up in:
  - Discriminatory & unrealistic EU biotech labeling laws
  - Decisions on biotech driven by politics rather than science
  - Dysfunctional EU biotech approval process
    - Politicization = delays at various stages of approval process which can lead to market access issues
    - Zero tolerance on unapproved biotech traits

And we have a common purpose:  
to deliver sustainable cost effective solutions  
across the entire agricultural supply chain





Thank You

