

# WORC

*Western Organization of Resource Councils*

*May 2005*

## **Genetically Modified Wheat is Still a Market Risk**

*Market Impacts from Commercializing Round-Up Ready<sup>®</sup> Wheat: Spring 2005 Update\**

Introduction of genetically modified wheat in the U.S. still risks the loss of 25%-50% of U.S. hard red spring wheat and durum exports and up to a 33% price plunge, according to Dr. Robert Wisner, a leading grain market economist. Monsanto postponed release of genetically modified wheat in May 2004, compelled by market resistance documented by Dr. Wisner in October 2003.

These risks remain large despite some policy changes, trends and other developments since October 2003 that could affect the market risk of introducing genetically modified wheat.

- Some European Union policies on genetically modified (GM) crops and food are changing, but so far, consumer attitudes have not. Meanwhile, ten more nations have been brought into the EU GM food labeling and traceability program since 2003.
- The growing market for U.S. hard red spring wheat in China could reduce the expected loss of wheat exports, *if Chinese consumers are more willing to buy GM wheat than those in other Asian countries*. Even if Chinese consumers completely accepted GM wheat, exports to China at current levels would not make up for potential losses in other export markets. Introduction of GM wheat in the U.S. would still create a high risk of a one-third drop in hard red spring wheat prices for U.S. farmers.
- Monsanto and other firms have developed a non-GM soybean with low trans-fat content, and then used genetic modification to make it resistant to Roundup. Wheat growers should monitor consumer acceptance of this GM crop, which has consumer benefits. Foreign customers may prefer non-GM low trans-fat soybeans to the new GM soybeans.
- Syngenta is developing a *fusarium*-resistant GM wheat, but will not release it for several years. Consumers overseas may be as resistant to Syngenta's GM wheat as to Monsanto's.

### **Summary of 2003 findings**

- A large majority of **foreign consumers and wheat buyers do not want GM wheat**. At least 37 countries have mandatory labeling programs for food with GM ingredients.
- Commercial release of GM wheat in the U.S. in the next few years would create a high risk of **loss of one-third to one-half of U.S. hard red and durum wheat exports**.
- U.S. hard red spring and durum **wheat markets in Europe likely would be lost completely**.
- Hard red spring and durum **wheat prices could fall by one-third**, to feed wheat levels.
- Increased government program payments would only partially offset lower wheat prices.
- Plummeting prices would lead to **lost wheat acreage; loss of revenue** to farm-related and rural non-farm businesses, and falling local and state **tax revenues**.
- **Market risks for GM wheat are greater than for GM corn and soybeans**. Unlike wheat, most corn and soybeans are fed to livestock or processed into oils and sweeteners. The U.S.

---

\* Dr. Robert Wisner, University Professor of Economics, Iowa State University, prepared the original report and this update for the Western Organization of Resource Councils. Both are available at <http://www.worc.org>.

share of world exports is much smaller for wheat than corn or soybeans, and corn (unlike wheat) has a rapidly growing domestic demand.

- **The issue is consumer acceptance.** Consumers are the driving force in countries where food labeling allows choice. Governmental approval does not guarantee consumer acceptance.
- USDA has estimated the **costs of a dual marketing system** to separate GM wheat from non-GM wheat at approximately \$0.70 per bushel.
- **Non-GM wheat from other countries** is likely to be available to foreign buyers at highly competitive prices, and without added segregation costs.
- Price premiums for **organic wheat** are as much as 50 percent above prices for conventionally grown wheat. Contamination from the introduction of GM wheat could eliminate these premiums and the market for organic wheat.

## New Findings

The European Union has **lifted its blanket moratorium** on GM crops, and adopted **more restrictive labeling and traceability** requirements for GM food and crops. These changes signal a more positive EU government policy toward GM foods, but *concluding that EU consumer attitudes are becoming more positive is premature, probably by several years.*

- A survey of European supermarkets found very few foods with GM ingredients. Marketing products made from **GM wheat would be a major challenge in Europe.**
- **Ten central and eastern European nations joined the EU** in 2004, increasing the number of countries with food labeling programs. Labeling allows consumers to show their preferences about GM food to food companies, wheat producers and the seed industry.
- The EU has approved the marketing, but not production, of a type of GM sweet corn. With strict labeling and present consumer attitudes, it will be difficult to market in the EU.

There is **no evidence of changes** in Asian consumers' preference for non-GM wheat.

## Emerging GM crops with potential benefits for consumers

Monsanto and other biotech firms have developed a **low-linolenic soybean** that will help reduce the trans fatty acid content of food products, and may be perceived by consumers as having health benefits. These soybeans were produced by conventional plant breeding, but will be genetically modified to resist Round-Up<sup>®</sup> herbicide, making them the **first commercial GM crop with potential consumer health benefits.** Iowa State University has developed a similar, non-GM soybean, which should be available to processors in limited amounts in 2005.

Because the U.S. does not have GM food labeling laws, U.S. consumers probably will buy food made from the Round-Up Ready<sup>®</sup> version of this soybean, as with food from other GM soybeans. Prospects for international acceptance, however, are less clear. Acceptance or lack of acceptance of GM low-linolenic acid soybeans may be the first indicator of **whether products with consumer benefits will change foreign consumers' attitudes** toward GM foods.

**Syngenta's fusarium-resistant GM wheat** is believed to be five to six years from commercial production. (Wheat breeders at North Dakota State University have just released an alternative *fusarium*-resistant wheat developed through conventional breeding.) *Fusarium* reduces yields and can create a toxin that makes wheat unfit for human consumption. The EU food labeling system would probably make it difficult to market a genetically modified *fusarium*-resistant wheat in Europe if it were currently available. The wheat industry monitors *fusarium* closely, and keeps contaminated wheat out of the food supply, minimizing consumers' concerns, so consumers will not necessarily perceive direct benefits from a GM *fusarium*-resistant wheat.