

## FACT SHEET

# GENETICALLY MODIFIED WHEAT: A THREAT TO NORTHERN PLAINS' WHEAT PRODUCERS

**Genetically modified (GM) wheat could ruin wheat farming in the Northern Great Plains.** The bulk of our hard red spring and white winter wheat is grown for export. Foreign and domestic buyers of the wheat grown in this region have said that they do not want GM wheat. Their customers reject products made with GM ingredients, so grain buyers will not risk purchasing wheat that might contain even trace amounts of GM material. If we grow any GM wheat anywhere in the U.S., foreign buyers will look to other nations like Australia and Russia that guarantee GM-free wheat. Despite the risk to wheat producers, biotech companies like Monsanto and Syngenta are pursuing commercialization of GM wheat.

### PROBLEMS WITH GM WHEAT

- ✓ GM wheat is a direct threat to this region's wheat market.
- ✓ Wheat infrastructure will require dramatic changes if GM wheat is introduced.
- ✓ Technology Use Agreements bars farmers from saving or selling GM seeds.
- ✓ No country in the world has approved GM wheat for sale.

### What's at stake in Montana?

- ✓ 80% of Montana's wheat grown for export
- ✓ Montana's #1 commodity
- ✓ Montana's 8,950 wheat farms
- ✓ A \$1.7 billion wheat industry

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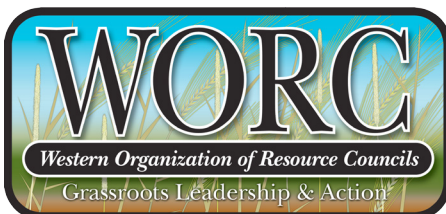
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### GM WHEAT IS A THREAT TO WHEAT MARKETS

Foreign buyers of U.S. wheat have said that they will stop buying any wheat from the U.S. if any variety of GM wheat is introduced. With more than half of Northern Great Plains wheat grown for export, introduction of GM wheat could devastate the region's economy.

A 2003 landmark market study commissioned by WORC found that farmers could lose 50% of U.S. hard red spring wheat export market with the introduction of GM wheat—and even higher export losses for durum wheat. Report author Dr. Robert Wisner, an Iowa State University economist, found that losing half of our export market would drop wheat prices by a third, plummeting farm revenue.

A 2006 update to Wisner's market risks report found that consumer attitudes toward GM crops had remained unchanged. In 2010, WORC released another market update by Dr. Neal Blue, a former research economist at Ohio State University. Blue found that buyers in Europe, Japan, and other Asian nations will turn to other countries that guarantee GM-free wheat for all of their wheat purchases if GM wheat is produced in the U.S. This would drop hard red spring wheat prices by 40% and durum wheat by 57%.



### WHAT IS GENETIC MODIFICATION?

Genetic modification uses biotechnology to insert genetic material from a plant, animal or bacterium into another organism's DNA, creating an entirely new organism with a unique genetic makeup that is then patented and owned by the company that developed it.

## EVEN SMALL INCIDENTS OF GM CONTAMINATION THREATEN OUR MARKET

With international tolerance for genetic traits in wheat at zero per cent (other GM crops are allowed to contain trace amounts of GM material), a contamination event has severe economic consequences. Contamination can occur during many stages of wheat's agricultural cycle and its commercial path to market: planting, cultivation, harvesting, transporting, cleaning, storing, and processing. It can be caused by seed impurities, wind, cross-pollination by insects, transport by birds or water, by volunteers (plants growing from the previous year's crop), or inadequate harvesting and handling practices. Introducing GM wheat anywhere in the U.S. dramatically raises the risk of contamination and will send foreign buyers looking for markets they can trust for GM-free wheat.

### Prices Drop After GM wheat is Found in Oregon

Wheat prices tanked in spring of 2013 immediately after USDA announced the discovery of volunteer, unapproved Monsanto-bred GM wheat growing in an Oregon farmer's field. Japan stopped U.S. wheat shipments and Korea began testing for GM-traits. The market reaction revealed that even a small discovery of GM wheat costs U.S. wheat producers.

## INFRASTRUCTURE WILL REQUIRE DRAMATIC CHANGES TO SEGREGATE GM WHEAT

The grain handling system will inevitably carry traces of whatever flowed through it and traces will get mixed into future shipments. Producers and grain handlers will have to make extensive and costly changes in the way they transport, store, test, and sell wheat in order to segregate GM wheat. GM wheat can remain in cracks and crevices on conveyor belts, in bins or in shipping containers, driving up commingling risk. With thousands of points where grain could be misrepresented, mixed, or mislabeled, a single mistake or a customer receiving GM instead of GM-free wheat could shake market confidence and cost producers hard-earned trust.

## FARMERS CANNOT SAVE AND REPLANT GM WHEAT SEEDS

Farmers don't buy or own GM seeds; they must enroll in a technology use agreement that licenses them to use the patented technology contained in the seeds. These agreements prohibit farmers from saving or selling seeds, a time-honored tradition, forcing them to purchase seeds every year. Monsanto's technology use agreement limits the company's liability and imposes stiff fines – payment of 120 the amount of the technology fee farmers pay to buy the seeds – for violations of the agreement. In the past 15 years, Monsanto sued 150 farmers and threatened hundreds more; all but 11 farmers have been forced to settle rather than face Monsanto at trial.

## Grassroots pressure stopped Monsanto's GM wheat in 2004

From 2000 to 2004, farmers and consumers with WORC organized across the country and around the world to protect the economy and environment of the Northern Great Plains against the introduction of GM wheat. Under farmer and grassroots pressure, Monsanto announced in 2004 that it was shelving research and development of GM wheat. In 2011, though, Monsanto resumed outdoor testing GM wheat on hundreds of acres in North Dakota and Hawaii. The biotech industry aims to gain approval for commercial GM wheat within ten years, yet foreign market rejection of GM wheat remains strong.

## GM WHEAT IS NOT APPROVED ANYWHERE IN THE WORLD

No GM wheat is approved anywhere in the world. Unlike other GM grains, such as corn and soybeans, wheat is grown primarily for human consumption—not processed into oils or used as livestock feed. Countries around the world require labeling of GM foods. Without more evidence about the safety of GM wheat one way or the other, consumers overseas – who can choose whether or not to buy GM food– choose not to.

## TAKE ACTION

- ✓ Join with other farmers and concerned citizens committed to protecting our valuable wheat market and the communities that rely on it. Visit [www.worc.org/registry](http://www.worc.org/registry).
- ✓ Urge Montana's Wheat Commission to oppose introduction of GM wheat.