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2003 SENATE AGRICULTURE

SB 2408

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2003 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2408

Senate Agriculture Committee

☐ Conference Committee

Hearing Date 02/13/03

Tape Number	Side A	Side B	Meter #
1	x		652 - end
1		x	0 - end
2	x		0 - 1926
2	x		2799 - 3042
Committee Clerk Signature 			

Minutes:

Chairman Flakoll opened the hearing on SB 2408. Five members were present. Senator Erbele was absent.

Senator Fairfield introduced the bill. (written testimony) (meter # 851 - 2135)

Senator Flakoll asked about page 2 line 15 of the bill. Could any member of the Industrial Commission deem other information is necessary or would the entire Industrial Commission deem other necessary information?

Senator Fairfield said she interpreted the bill to mean the entire Industrial Commission.

Senator Flakoll asked how long it would take to receive a certificate of approval?

Senator Fairfield said 120 days maximum on the findings after the hearing.

Senator Flakoll asked, since the bill is restricted to seed for commercial use, should it be changed to include seed for research plots?

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Senator Fairfield said there has been discussion about research but this language was drafted specifically not to encumber research.

Senator Flakoll asked what traits that are causing concern?

Senator Fairfield said that is precisely the reason this legislation was drafted in this way, to avoid going after one specific variety so that all issues and all varieties will go through the process.

Senator Flakoll asked if we pass the bill as drafted and approval of the seed would come under the purview of the Industrial Commission and the seed would also be approved on a federal level, would this be a violation of the interstate commerce act?

Senator Fairfield said her understanding is no.

Senator Urlacher asked if there has been legislation along these lines on the federal level?

Senator Fairfield said a couple of bills have been discussed but nothing that deals with the certification process. This is our responsibility in North Dakota where wheat is king.

Senator Klein said, regarding the Industrial Commission, the members are an attorney, a former banker and a former farmer. Will they have the knowledge over and above the FDA, the USDA, the EPA? How do you envision the process working so they could make a decision, given their backgrounds and knowledge?

Senator Fairfield said a number of departments and agencies will deal with aspects of this.

However, no one will deal with the marketing impacts. Is the Industrial Commission qualified?

She certainly hopes so. In the statute they are entrusted to manage industry in North Dakota.

They are given flexibility and latitude to do what they must. She trusts the Industrial

Commission. (meter # 3003)

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Dr. Robert Wisner, University Professor of Economics, Iowa State University, testified in favor of the bill. (written testimony) (meter #3113)

Senator Klein is excited to see there is a concern in the midwest. What safeguards is Iowa putting in place regarding GMO corn?

Dr. Wisner said very little wheat is grown in Iowa. Soybeans have been widely planted as a GMO crop and roughly one third of the corn on a national basis is GMO. Iowa is not making any effort to reverse what has occurred with GMO corn.

Senator Flakoll asked if Iowa State University was investing significant dollars to develop GMO crops, building a facility with Trans Ova Genetics? They are looking at spending \$250 - \$500 million dollars on biotechnology in the state of Iowa.

Dr. Wisner said there is substantial long term potential benefit from biotechnology. The key issue right now is can we take the risk of introducing biotech wheat commercially before the market is ready to accept it? All of the studies, including the Canadian studies, suggest there is a very high risk of doing so before the market is ready to accept it. The market needs to be monitored and the benefits to farmers weighed against the risk of marketing.

Senator Flakoll asked if farmers raise very many crops they can't sell?

Dr. Wisner said in this case they wouldn't know when they planted it if they could sell it. That's the problem with letting the farmer and the seed industry decide.

Senator Flakoll asked what the corn market is like this year?

Dr. Wisner said it is a short crop this year. In central Iowa, the corn prices have been roughly 20 cents above the loan rate. In past years with the short crop, the price would be expected to be higher.

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Senator Klein has heard a presentation by a North Dakota economist in Fargo who said almost the opposite of what has been said today. Do different studies use different findings to come to their conclusions?

Dr. Wisner asked what NDSU study?

Senator Klein said he heard Dr. Wilson speak.

Dr. Wisner said he had seen a study by Dr. Wilson regarding the cost of segregating a GMO crop. He has some doubts about the costs and procedures described by Dr. Wilson.

Mark Sitz, North Dakota Farmers Union, testified in favor of the bill. (meter # 5030) He said the North Dakota Farmers Union policy does not oppose biotechnology in any way. From his perspective, farmers have seen great benefits from GM corn, GM soybeans, GM canola. This bill, however, deals with a new issue, GM wheat. The impact of North Dakota wheat is very strong. Wheat is king. We need to insure nothing happens to that. This is a marketing issue, not a biotech issue. There is promise in GM wheat. Some of the solutions to problems we currently have in the wheat business will likely be solved with genetics. The devastation that could potentially take place would not be worth the gamble.

Senator Flakoll asked if there is another situation where a product that has been approved by FDA is illegal in some states?

Mr. Sitz said he didn't think we were talking about a product that is potentially illegal.

Senator Flakoll said the bill doesn't prevent planting GMO wheat, just selling it.

Mr. Sitz said he could not answer specific questions about the bill.

Senator Klein said that was his question, too. What would prevent producers from going outside the state to purchase seed?

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Todd Leake, Dakota Resource Council, testified in favor of the bill. (written testimony)

Senator Klein asked if Mr. Leake is concerned about a health risk associated with GM wheat?

A: Leake said that is not for him to say, that is FDA's purview. There is great discussion about the nutraceutical and pharmaceutical grains. Pharmaceutical corn was recently grown in test plots in Nebraska and was accidentally dumped into a bin of soybeans. This caused the government to confiscate and destroy the entire 500,000 bushels. (meter # 6001) The Dakota Resource Council does have concerns about the health and safety of engineering drugs and industrial chemicals in wheat.

Senator Flakoll asked if the federal government should be involved in determining the market viability of a product?

Mr. Leake said no, but there are future safety issues associated with pharmaceutically altered wheat.

Dean Hulse testified in favor of the bill. (written testimony) (meter # 130, side B, tape 1) He is a consumer of organic products and is very particular about what he eats. He also distributed a news article from CropChoice.com about Monsanto's gene altered crops in India. He said we are a long way from deciding the issue of segregation, much less market acceptance so we need a government entity to intervene until the issue can be decided. He listed 4 business meltdowns that have occurred in the last 24 years (Savings and Loans, Junk Bonds, Dot Coms and Enron) and said the Industrial Commission can prevent another through this bill.

Senator Flakoll asked if Mr. Hulse would be in favor of including organic products in the bill?

Mr. Hulse said that would be the intent of the bill, to evaluate any new variety.

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Don Nelson, a farmer from Keene, testified in favor of the bill. He said this legislative body has to deal with this issue because North Dakota has the most to lose. He said the federal government is waiting for North Dakota to act.. Most federal legislation comes when states take it up. He will hold the legislature responsible if his wheat crop goes to feed price.

Jim Bobb, a farmer from Taylor and a grain merchandiser for Southwest Grain, testified in favor of the bill. Last year they marketed 6% of the total North Dakota wheat crop. They support having someone from outside the industry as a watchdog. They are also concerned about segregation. They are concerned about having a shipment in Portland that is rejected by the Japanese because of GM wheat contamination. They would have very limited options in that case.

Senator Urlacher asked if this will lead to the testing of all wheat?

Mr. Bobb said currently there is not a quick test available for GM wheat.

Senator Urlacher asked how many elevators he represents and what volume of wheat they handle?

Mr. Bobb said they handled 16 million bushels of wheat, as high as 21 million bushels some years, and represent 11 elevators in North Dakota and northwest South Dakota.

Senator Flakoll said he has lived on the border all his life, is there anything in the bill that would prevent trucking in GM wheat seed from outside the state?

Mr. Bobb said not currently, and they do not have language in their contracts to go back if they get caught with it. No bill is going to eliminate all problems.

Senator Klein asked if Mr. Bobb IP's some wheat when loading it?

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Mr. Bobb said yes, they have IP programs, some white spring wheat, they have IP ed wheat to Korea, Japan and Europe, all under different scenarios.

Wayne Fisher, no till farmer from southwest of Dickinson, testified in favor of the bill. His main concern is market. In the news lately, he heard two biotech companies paid \$110 million to corn farmers for market losses. Dr. Wilson, prior to the 2001 legislative session, was warning about market loss but after Monsanto threatened to pull the plug on their research funds at NDSU, he changed his tune. (meter # 1401)

Del Gates, a farmer and seed producer from Mohall, testified in favor of the bill. The seed producers are trying to keep the tolerances down in seed and keep the identity of varieties preserved. This bill would put teeth into the process.

Robert Bornemann, a beginning organic farmer, testified in favor of the bill. (written testimony)
(meter # 1755)

Greg Daws, a farmer from a 4800 acre wheat and canola farm near Michigan, North Dakota testified against the bill. (meter # 1940) He hauls his crop to the state mill in Grand Forks. He often dumps his grain the same day as organic farmers and everything operates smoothly and everyone gets along. Technology is the equalizing force in competing with the European Union. We can't throw up road blocks to technology.

Eric Aasmundstad, President of the North Dakota Farm Bureau, testified against the bill. (written testimony)

Terry Wanzek, farmer from Jamestown and representing the North Dakota Grain Growers testified against the bill (meter # 2406). He has been intimately involved with the issue over the last few years. There is little disagreement on the concerns and potential risks and problems.

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The disagreement lies in the solutions. If we had passed adversarial, confrontational laws, we wouldn't have the cooperation and communication that is ongoing now. We have learned a lot from the Star Link situation. We need to be careful but we can't isolate ourselves with this type of legislation. Is this a sincere effort or just politics? If we are truly concerned about the release of biotech wheat, we should be concerned on a federal level and should be talking to the congressional delegation. We need to work together to prepare North Dakota in a positive, proactive way for the eventual release of this technology.

Senator Klein asked about the European resistance to biotech wheat. Why would they be accepting when we haven't accepted it?

Mr. Wanzek said there is a natural aversion in some countries because we haven't approved it in the US yet. The European Union will still have some reservations.

Senator Klein asked if you race to the nearest seed store to buy this product when there is no market? He thinks farmers are very aware of their markets and are well educated. Are there crops available now that aren't being planted?

Mr. Wanzek said farming is complex; marketing and management get a lot of attention from today's farmers. If there is no market for a crop, farmers will not plant it. If this technology is so bad, why were 75% of the soybeans planted in 2002 biotech as well as 71% of the cotton and 34% of the corn. (meter # 3620)

Senator Flakoll said allergency of wheat is referred to on page 1, line 23 of the bill. Many products have some allergency. Under what parameters do you envision this being evaluated?

Mr. Wanzek said he is against the bill because it essentially is meant to put a moratorium on biotech wheat in the state. He has heard anecdotal evidence that side ingredients in products, for

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example yeast, have been genetically altered. Even non-genetically altered material could cause allergenic problems.

Senator Urlacher asked if the federal government is very concerned about the environmental and safety impact of biotech wheat? Are they also concerned about affects to the market?

Mr. Wanzek said Senator Urlacher raises a valid point. The EPA studies impact on the environment, FDA studies impact on safety and USDA studies the impact on agriculture. If the market is a major concern, the focus should be on the national level.

John Olson, representing Monsanto, testified against the bill. He also distributed the written testimony of Cal Rolfson, representative of CropLife America, who had to testify on another bill and who is also against the bill. Mr. Olson distributed a brochure "Bringing New Technologies to Wheat". He said Monsanto has a continuing commitment to work with producers, researchers and all those who have concerns and opinions about biotechnology. Monsanto will continue to address concerns and fears as they develop this technology and ultimately release various varieties for commercial production. They have appeared at many forums and will continue to do so. They see a positive future for these technologies. The brochure reflects a cooperative effort with the research universities. The brochure lists 6 milestones that must be achieved before Roundup ready wheat will be introduced for commercial use.

If the purpose of the bill is to politicize the issue, it will accomplish it. The bill appoints political officials to make a determination on a scientific issue. These types of determinations should be made by regulatory agencies. If this is not a political process, it should be funded. Where is the fiscal note? There should be one. Where are the legal standards of review, due process and the ability to present evidence under oath? Is the process subject to the administrative agency

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practices act? People and companies have legal rights on both sides of the issue. If 120 days have expired and an application is not approved, can it be approved after 120 days? Does the bill prohibit buying seed from out of state? Does the penalty on page 4 apply only to the sellers?

What about problems with interstate commerce? There are many problems with the bill.

If the main issue is markets, Mr. Olson doesn't believe this is the correct way of addressing those concerns.

Senator Flakoll asked about the administrative practices act.

Mr. Olson said it is in the code, 28 - 32 of the Century Code. (meter # 5680)

Mike Brandenburg, a farmer from Edgeley, testified against the bill. We need to put some reality back into this issue. Farmers may say they dislike Monsanto but they plant roundup ready varieties because the fields are clean.

Senator Klein asked if the use of roundup cuts down on chemical use?

Mr. Brandenburg said yes. If a producer can use roundup, it eliminates the use of a host of other chemicals and often just one pass of roundup is required. It is more environmentally friendly.

(tape 2 side A meter 16)

Laurence Scheresky, farmer from the Minot area, testified against the bill. We should not fence ourselves in, we should not stop research and technology. (meter # 88)

Tony Johannesen, North Dakota Grain Dealers Association, testified in a neutral position on the bill. (written testimony). He also distributed a proposed amendment to HB 1338 from the 2001 legislative session.

Senator Urlacher asked if the North Dakota Grain Dealers recognize the protection of the market value by the federal government? (meter # 891)

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Mr. Johannesen said he doesn't think anyone realizes the costs involved in protecting the market.

When GM wheat is released for commercial use, all US wheat will be assumed to contain GM wheat by our foreign customers. Prices will be adjusted accordingly.

Ken Grafton, Director of the North Dakota Agriculture Experiment Stations, appeared to dispel some rumors he heard about last night. NDSU is neutral on this bill. (meter # 1041) It does not necessarily affect their ability to do research.

Senator Flakoll asked about Iowa's plan to bring in 100 companies in the next five years with a whole host of genetic modifications. How many companies are working in biotechnology in crops?

Dr. Grafton said there are probably hundreds of companies world wide that are working on biotechnology and crops, probably dozens working on biotechnology and wheat. Syngenta has approached NDSU about research in scab resistant hard red spring wheat. Biotechnology offers tremendous opportunity in North Dakota and in the US and will allow us to remain competitive in international markets.

Senator Flakoll asked if Dr. Grafton knew of a case where a product had received FDA approval and was illegal in a state.

Dr. Grafton said he was unaware of any such case.

Senator Flakoll asked about page 1 line 17 of the bill that refers to the description of the technique used in making the genetic modification. Are some of these processes patented, will this provide a problem from a researcher's standpoint?

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Dr. Grafton said by the time a product would be ready for commercial release, the techniques would already have been patented and this information would be in the data base on the US Patent office website.

Senator Flakoll asked if there was resistance to hybrid crops when they were introduced?

Dr. Grafton has been a plant breeder for 23 years at NDSU. Back in the 30's when hybrid corn was introduced, there was some concern.

Dave Lokken, manager of the AGP elevator at Valley City, testified in a neutral position on the bill. (meter # 1487) AGP operates 10 elevators in eastern North Dakota and western Minnesota and has an export facility in Duluth. He said country elevators have a vital interest in this issue. AGP handles 50 million bushels of wheat each year, spring wheat and non GMO soybeans. 20 million bushels go through their export facility to their European customers. It has taken 10 years to build their European business. They have been able to guarantee their customers non GMO soybeans by testing every load dumped in the elevator with 2 segregational pits at the elevator in Valley City. Now the soybean seed stock is so contaminated, they can't supply this customer any longer. Not one customer will accept GM wheat at this time because their consumers don't want it. The technology has potential but not until the delivery channels are in place.

North Dakota farmers, North Dakota grain dealers and North Dakota experts are the ones who should be talking about this. We only have one chance to do this and the world is watching.

Chairman Flakoll closed the hearing on SB 2408. (meter # 1926)

Senator Nichols said the grain dealers have a lot of reservations. He may want to do some amendments. (meter # 2799)

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Senator Klein said once again, in the last days, they do it again. Where is their bill? They knew these bills were in place. We work with other agencies and other groups.

Senator Nichols asked if we are going to act on this tomorrow?

Senator Flakoll said yes.

Senator Klein wanted Senator Nichols to know where he stands on this.

Senator Nichols said they have two sides off the end of the spectrum. Senator Nichols is concerned about the markets. He knows what happens to elevators when they have a couple of bad trains and when it happens to elevators, it happens to farmers.

Chairman Flakoll adjourned the meeting of the Senate Agriculture Committee.

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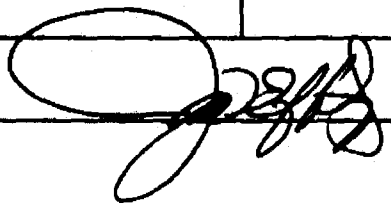
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BILL/RESOLUTION NO. SB 2408

Senate Agriculture Committee

☐ Conference Committee

Hearing Date 02/17/03

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Minutes:

Chairman Flakoll opened the discussion on SB 2408. All members were present.

Senator Nichols distributed an amendment to the bill. He said there seemed to be some support for some type of control over the release of transgenic wheat seed for commercial use. The grain dealers had some concerns.

It was moved by Senator Nichols and seconded by Senator Seymour to pass the amendment .0203.

Senator Klein said we are moving in the wrong direction by thinking the Industrial Commission can be the regulatory body on this issue. He heard the grain dealers, too, and was upset they came in at the last minute thinking they have an idea. This amendment doesn't make the bill a whole lot better.

Senator Erbele asked what a stop sale order is and what would it do?

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Senator Nichols said it would stop the sale and would be called for by the Industrial Commission. This would be in lieu of the penalty in the original bill.

Senator Urlacher asked why wouldn't university scientific analysis be used by the Industrial Commission?

Senator Nichols said the Industrial Commission would still need to consult with NDSU and the wheat industry institutions.

Senator Flakoll said the amendment incorporates NDSU and wheat industry organizations. Are there other cases where the Industrial Commission works with NDSU to do things like this?

Senator Nichols said probably not directly regulated by code.

The motion to pass the amendment .0203 failed. Voting yes were Senator Nichols and Senator Seymour. Voting no were Senator Flakoll, Senator Klein, Senator Urlacher and Senator Erbele.

Senator Flakoll distributed a hog house amendment to the bill and a resolution passed by the Montana Senate that was referred to in testimony last Friday. Senator Flakoll's amendment mirrors the Montana resolution.

Senator Urlacher said we could build in strength and uniformity by mirroring Montana. There are three issues of concern: marketing, co-mingling and cross pollination. These are the issues Montana addressed and these are the issues addressed by the amendment.

Senator Klein said some of these issues, segregation protocols, minimizing out crossing and market development are in the language and represent some of the concerns.

Senator Nichols said the amendment indicates NDSU will serve as a resource. What state agency would they report to?

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Senator Flakoll said they would report to the Agriculture Commission and the legislature and interested related parties. Based on testimony we have a lot of questions and this would allow true scientific data to be used in making decisions. We don't want to get ahead of ourselves until we have some answers.

Senator Urlacher said he thought the information would go to the Agriculture Commission and on to the legislative committees like it always does.

Senator Urlacher said this answers a lot of concerns from both sides.

It was moved by Senator Erbele, seconded by Senator Urlacher to adopt amendment .0201.

Senator Nichols asked if this means we would proceed cautiously, getting answers?

Senator Flakoll said that would be the intent, lets get some answers from a source with a good record of providing accurate data.

Senator Urlacher said if we feel they haven't satisfied us, we can go back again.

Senator Nichols said that is what he would like to see. Doesn't know if this would do the job.

Senator Erbele asked if we haven't been moving cautiously. We've been at this for three years, there are no more than 34 acres of research ground planted. That seems cautious.

Senator Nichols said he agrees. If railroad cars from elevators get rejected, that is a big problem. This has happened in his area with diseased wheat and it has caused big problems for a large elevator in his area.

Senator Urlacher said we must be cautious, we have too much at stake.

Senator Nichols asked if there will be an ongoing legislative visit to this during the interim?

Will we be receiving information on what is being done? Will there be a formal structure to receive this information?

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Senator Flakoll said the last sentence encompasses these wishes.

Senator Seymour asked if NDSU will get any money to do this research?

Senator Flakoll said there is ongoing public/private research.

Senator Klein said he just heard Egypt has decided to take our wheat once transgenic wheat has received all necessary approvals. Are we just throwing up road blocks, hindering the business community's ability to do business? If we are leaning on federal agencies to prove to us that this technology is acceptable, what is NDSU going to do?

Senator Seymour asked if doing nothing would be better?

Senator Klein said nothing would do as much as this will. He has full faith in our government agencies providing us the information we need on safety and health issues. Granted we will come back to the export issue, who is regulating that? For North Dakota, does this restrict us? I'm not sure yet.

Senator Klein said what we would be doing here would be asking NDSU to do the research and be the watchdog.

Senator Flakoll said yes and also following along the same lines as Montana.

The amendment .0201 passed on a roll call vote. Voting yes were Senator Flakoll, Senator Erbele, Senator Urlacher and Senator Seymour. Voting no were Senator Klein and Senator Nichols.

It was moved by Senator Urlacher, seconded by Senator Nichols and passed on a roll call vote that the Senate Agriculture Committee take a Do Pass as Amended action on SB 2408. Voting yes were Senator Flakoll, Senator Urlacher, Senator Nichols and Senator Seymour. Voting no were Senator Erbele and Senator Klein. Senator Flakoll will carry the bill to the floor.

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Hearing Date 02/17/03

Chairman Flakoll adjourned the meeting of the Senate Agriculture Committee.

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10/23/03
Date

30333.0203
Title.

Prepared by the Legislative Council staff for
Senator Nichols
February 14, 2003

PROPOSED AMENDMENTS TO SENATE BILL NO. 2408

Page 1, line 2, remove "; and to"

Page 1, line 3, remove "provide a penalty"

Page 3, line 12, after "commission" insert ", in consultation with the North Dakota state university and wheat industry institutions and organizations,"

Page 4, line 1, replace "Penalty" with "'Stop-sale order'"

Page 4, line 3, replace "guilty of a class B felony" with "subject to a "stop-sale" order. The commission or the commission's agent may issue a written "stop-sale" order to the owner or custodian of any lot of wheat seed which has not received a conditional or a nonconditional approval from the commission. The order may prohibit the sale, the conditioning of, and the movement of the wheat seed."

Renumber accordingly

Page No. 1

30333.0203

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Date: 2/17/03
Roll Call Vote #: 1

2003 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2408

Senate Agriculture Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken make amendment . 2003

Motion Made By Sen. Nichols Seconded By Sen. Seymour

Senators	Yes	No	Senators	Yes	No
Senator Tim Flakoll, Chair		✓	Senator Ronald Nichols	✓	
Senator Robert S. Erbele, V. Chair		✓	Senator Tom Seymour	✓	
Senator Jerry Klein		✓			
Senator Herb Urlacher		✓			

Total (Yes) 2 No 4

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Fail -

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10/23/03
Date

30333.0201
Title.0300

Prepared by the Legislative Council staff for
Senator Flakoll
February 14, 2003

JB
2-18-03

PROPOSED AMENDMENTS TO SENATE BILL NO. 2408

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act relating to North Dakota state university conducting activities pertaining to transgenic wheat."

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. NORTH DAKOTA STATE UNIVERSITY - ACTIVITIES PERTAINING TO TRANSGENIC WHEAT. North Dakota state university shall conduct research pertaining to transgenic wheat. The research must include varietal development and testing, segregation protocols, domestic and international market development, producer and consumer preferences, and methods to minimize outcrossing with nontransgenic wheat and weeds. North Dakota state university shall consult with and serve as a resource to state and federal agencies regarding the commercialization of transgenic wheat after the receipt of all requisite regulatory approvals and may consult with and serve as a resource to public and private agencies in the pursuit of international market maintenance and development."

Renumber accordingly

Deanna Hall
Operator's Signature

10/23/03
Date

Date: 2/17/03
Roll Call Vote #: 2

2003 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2408

Senate Agriculture Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken amendment . 0201

Motion Made By E Seconded By U

Senators	Yes	No	Senators	Yes	No
Senator Tim Flakoll, Chair	✓		Senator Ronald Nichols		✓
Senator Robert S. Erbele, V. Chair	✓		Senator Tom Seymour	✓	
Senator Jerry Klein		✓			
Senator Herb Urlacher	✓				

Total (Yes) 4 No 2

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

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10/23/03
Date

Date: 2/17/03
Roll Call Vote #: 3

2003 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2408

Senate Agriculture Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken

Do Pass As Amended

Motion Made By

U

Seconded By

N

Senators	Yes	No	Senators	Yes	No
Senator Tim Flakoll, Chair	✓		Senator Ronald Nichols	✓	
Senator Robert S. Erbele, V. Chair		✓	Senator Tom Seymour	✓	
Senator Jerry Klein		✓			
Senator Herb Urlacher	✓				

Total (Yes) 4 No 2

Absent 0

Floor Assignment Flakoll

If the vote is on an amendment, briefly indicate intent:

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REPORT OF STANDING COMMITTEE (410)
February 18, 2003 9:42 a.m.

Module No: SR-31-3051
Carrier: Flakoll
Insert LC: 30333.0201 Title: .0300

REPORT OF STANDING COMMITTEE

SB 2408: Agriculture Committee (Sen. Flakoll, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends **DO PASS** (4 YEAS, 2 NAYS, 0 ABSENT AND NOT VOTING). SB 2408 was placed on the Sixth order on the calendar.

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act relating to North Dakota state university conducting activities pertaining to transgenic wheat.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. NORTH DAKOTA STATE UNIVERSITY - ACTIVITIES PERTAINING TO TRANSGENIC WHEAT. North Dakota state university shall conduct research pertaining to transgenic wheat. The research must include varietal development and testing, segregation protocols, domestic and international market development, producer and consumer preferences, and methods to minimize outcrossing with nontransgenic wheat and weeds. North Dakota state university shall consult with and serve as a resource to state and federal agencies regarding the commercialization of transgenic wheat after the receipt of all requisite regulatory approvals and may consult with and serve as a resource to public and private agencies in the pursuit of international market maintenance and development."

Renumber accordingly

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2003 TESTIMONY

SB 2408

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Date

**SENATE AGRICULTURE COMMITTEE
TESTIMONY REGARDING SB 2408
SENATOR APRIL FAIRFIELD
February 13, 2003**

Mr. Chairman, members of the Committee, for the record my name is April Fairfield and I am the Senator from District 29. I am the prime sponsor of SB 2408.

Normally I would start my testimony by discussing the purpose and specific provisions of the bill. However, I feel it is necessary to begin the discussion of SB 2408 by talking about what the bill does NOT do.

SB 2408 is not about research. SB 2408 puts no constraints whatsoever on biotechnology research. Neither public research at North Dakota State University and other public institutions nor private research anywhere in North Dakota would come under any authority created by SB 2408. Anyone who claims that SB 2408 curtails research either has not read the bill or is trying to lead you astray.

SB 2408 is not a moratorium on genetically modified wheat. SB 2408 provides a process by which transgenic wheat varieties would be certified for commercial production. That certification could occur at any time after the enactment of this legislation. Discussion about moratoria is irrelevant to SB 2408 because the bill does not implement a moratorium on genetically modified wheat. Calling SB 2408 a moratorium is disingenuous, at best, and nothing more than a distraction from the issues at hand.

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SB 2408 does not make North Dakota an island. We will not be isolated by passing this legislation. Other states will follow our lead, if we have the courage to provide leadership. North Dakota grows half of the hard red spring wheat in the entire nation. Wheat farmers in North Dakota, and for that matter throughout the region, are looking to the North Dakota legislature for leadership on this issue.

SB 2408 does one thing, provides that the state of North Dakota is prepared to accept genetically modified wheat before genetically modified varieties are commercially released in the state.

Why is SB 2408 needed? Once again, North Dakota farmers raise roughly half of the nation's hard red spring wheat, along with a lion's share of durum and lesser amounts of other wheat varieties. Agriculture is the largest sector in our economy and wheat is the most significant commodity in agriculture, our largest crop and most important export.

Our export partners have repeatedly and vociferously told us that they do not want genetically modified wheat and that they will not buy genetically modified wheat. Eight of our largest 11 export partners have clearly communicated, in public statements, in regulation and in trade negotiations, that they will not buy genetically modified wheat. Some of these countries have said that there may be a time for genetically modified wheat, but all of them have clearly said that now is NOT the time.

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Furthermore - even if a country has a government policy that allows the importation of genetically modified wheat or establishes tolerance levels for it, that does not mean private industry will accept it.

No one here today, no Legislator, no farmer, no farm organization, no researcher and no wheat industry representative will tell you that we are ready to release genetically modified wheat. Even the biotechnology companies have said that there are benchmarks to be met before genetically modified wheat should be commercialized. On this we all agree, there is much work to be done before North Dakota is ready for the commercial release of genetically modified wheat.

With that in mind, North Dakota State University worked with biotechnology companies to develop this brochure. In the brochure NDSU and the companies identify a number of benchmarks relating to genetically modified wheat that must be met before commercialization. This is an important acknowledgment of what many farmers and farm organizations have said over the last 4 years, that genetically modified wheat should be accepted in the marketplace before it is released for commercial production.

After years of listening to debate in the Legislature and in the Interim Agriculture Committee, one thing has become perfectly clear to me, both sides of the issue are saying the same thing. Genetically modified wheat is coming. The question is, will we be prepared for it?

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SB 2408 is the compromise position. The bill provides the best of both worlds. It is not a moratorium but neither does it allow an uncontrolled, premature release of genetically modified wheat.

The bill empowers the Industrial Commission to accept a petition for certification of genetically modified wheat; to receive research, market information and testimony regarding commercialization; and to determine whether the petition should be approved and the variety certified based on whether market acceptance and other criteria have been adequately addressed.

The Industrial Commission is uniquely situated to oversee the process by which biotechnology companies prove that genetically modified wheat can live up to the promises they have made.

The Governor, Attorney General and Commissioner of Agriculture, as elected representatives of the farmers and every citizen of North Dakota, would be charged with determining if the evidence about marketability, ability to segregate and value to producers is sufficient to merit approval for commercial production in North Dakota.

The Industrial Commission is the most appropriate body to make these determinations. The commission is empowered by statute to "conduct and manage, on behalf of the state of North Dakota, certain utilities, industries, enterprises and business projects." The Century Code also provides that, "In the creation of the industrial commission, it is the intention of the legislative assembly that all acts of the industrial commission are the acts of the state of North Dakota functioning in its sovereign capacity."

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No one here today will say that farmers have not embraced biotechnology nor that they will not, at some point in the future embrace biotechnology applications in wheat production. You may hear testimony today about genetically modified, scab-resistant wheat on the horizon. I hope that is the case. SB 2408 was designed to provide flexibility and take into account that market realities today may change and that other factors, such as disease resistance, may be viewed differently when they are brought forward. SB 2408 would allow these varieties, when they become available in the future, to be judged on their merits.

The commercial release of genetically modified wheat is the most important issue facing North Dakota agriculture. The heated debate in the Legislature and in the countryside demonstrates just how important this issue is to farmers and everyone with a vested interest in North Dakota agriculture.

Each year, North Dakota farmers grow between 40% and 60% of the hard red spring wheat in the United States. Of the hard red spring wheat grown in the United States between 50% and 70% is exported.

The message from our export partners could not be clearer – they will not buy genetically modified wheat. The economic devastation that will be visited upon North Dakota by the untimely commercialization of genetically modified wheat cannot be overstated.

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This legislation would simply provide for the "go slow approach" that so many have advocated for. And, just as importantly, SB 2408 would give North Dakota farmers a real voice in when genetically modified wheat hits the marketplace.

It is only fitting and right that biotechnology companies demonstrate that the claims they make about genetically modified wheat hold water. President Ronald Reagan used to say, "Trust, but verify." Biotechnology promoters have asked for our trust. It is time that we established a process by which their promises can be verified.

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10/23/03
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02/06/03

Two to Six-Year Export Market and Price Risk from U.S. Introduction of GMO Hard Red Spring Wheat

By Dr. Robert Wisner*
University Professor of Economics
Iowa State University

GMO crop technology offers possible large benefits to consumers in the future, if plant-breeding concepts currently in the development stage materialize. However, at this point, GMO crops are "input trait" crops. The gene from an unrelated organism such as bacteria or fungus is inserted into the plant and is substituted for an alternative type of input such as an insecticide or alternative weed control technology. Most foreign consumers see nothing to be gained from purchasing food produced from these types of crops, and many are uneasy about their long-term safety. *Several major indicators show a high risk that many foreign wheat customers would stop buying U.S. hard red spring wheat (and very likely durum wheat also) if GMO wheat is brought into commercial production at this time.*

Foreign customer concerns reflect worries about food and environmental safety, perceived inadequacy in U.S. government regulatory systems, highly concentrated ownership of GMO seed patents for the world's major food crops, and inadequate legal systems for dealing with GMO issues. Irreversibility of GMO production systems once they are introduced is also a concern. **Regardless of the scientific validity of their food and environmental safety concerns, consumer attitudes determine buying patterns.** Even if their governments approve imports of GMO food ingredients, consumers and foreign food industries may still reject such crops.

This report examines probable short run (two to six year) impacts on export markets and prices from the commercialization of GMO hard red spring wheat. Potential export-market impacts from U.S. commercialization of Round-Up Ready® hard red spring wheat (HRS) are extremely important to Northern Plains farmers and ranchers, exporters, millers, other agribusiness firms, and rural communities. There is a high probability that GMO wheat would be rejected in the short run by a substantial segment of the international market, and would depress HRS and probably durum wheat prices to feed wheat levels. That would be about one-third lower than average prices of recent years. Increased government program payments from the Farm Security and Rural Investment Act of 2002 would only partially offset a drop in spring wheat prices to this level. In the short-run, increased wheat feeding also would have a slight negative impact on markets for feed grains including corn, sorghum, and feed barley.

Some have suggested that the risk in foreign buyer rejection of GMO wheat is low, based on continued U.S. exports of GMO corn and soybeans. While corn and soybeans have been

*Views presented here are those of the author and not necessarily those of Iowa State University.

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widely adopted by U.S. farmers and continue to move into export markets, these sectors have experienced some export acceptance problems. Also, it is important to note several differences between these crops and wheat. First, there are many more alternative suppliers of wheat in world markets than for corn and soybeans. The U.S. accounts for only about eight percent of world wheat production, compared with 40 to 43 percent for corn and soybeans. Thus, alternative supplies of wheat are more readily available than for corn and soybeans. Secondly, many corn and soybean products so far have avoided GMO labeling in foreign markets, thus avoiding consumer identification. Vegetable oils and corn sweeteners have not been labeled because the GMO protein is removed in processing. Soybean protein is fed largely to livestock and poultry, as is corn. By being processed through meat or milk animals, large percentages of these two crops have avoided GMO labeling. *GMO wheat products, in contrast to corn and soybeans, would almost all be labeled as containing GMOs in the foreign countries that have GMO labeling programs.*

Even though many products of corn and soybeans have avoided GMO labels, the U.S. has lost the EU corn export market in the last three years due to commercialization of GMO corn, and has lost most of the EU Soybean meal market. EU is by far the world's largest importer of soybean meal and in the past frequently has been one of the largest U.S. markets for soybean meal. The U.S. corn industry also has lost most of the South Korean corn market to non-GMO Chinese corn. Three or four years ago, South Korea was the second largest U.S. corn export market. The National Corn Growers Association has estimated that just the loss of the EU corn market has created a loss of one billion dollars in lost revenue for the corn industry in the last four years.

There is much evidence that many foreign consumers would stop purchasing food products made from Round-Up® Ready wheat, if it is introduced in the next few years. At least 36 nations currently label food that contains GMO ingredients above a prescribed threshold level. Another 10 to 12 countries are expected to implement labeling in the next few years. These threshold levels range from zero to five percent of a food's total ingredients. Labeling does not prevent the U.S. from exporting GMO products to these nations, but it does provide a mechanism by which consumers can communicate their desires through the market. EU surveys of consumers, a 2002 U.S. Wheat Associates, Inc. survey of oriental buyer and consumer attitudes toward GMOs, a Canadian Wheat Board survey, recent developments in EU GMO policies, and problems with U.S. GMO corn all are potential indicators of a probable very poor consumer response to GMO wheat in export markets.

The Canadian Wheat Board indicates more than 80% of its customers have said they will refuse to buy genetically modified wheat. It also indicates that assurances from the Canadian government are extremely unlikely to change consumer attitudes toward such wheat (Canadian Press, 01/13/03). Further evidence of potential serious consumer acceptance problems in the short run comes from a survey of foreign buyers by the US Wheat Associates in August 2002 (U.S. Wheat Associates, September 30, 2002). US Wheat Associates stresses that this survey was not structured to give estimates of volumes of exports that might be affected by the introduction of GMO wheat. Also, it represents consumer and buyer reactions at a point in time. *The report indicated that all representatives of Chinese, Korean and Japanese wheat buyers surveyed said they would not buy or use Roundup Ready wheat.*

The survey indicated 82% of the Taiwanese buyers and 78% of the South Asian buyers would not buy GMO wheat. The Japanese users were unanimous in indicating they would not buy GMO wheat, regardless of U.S. and Japanese government regulations.

A Community-wide 2001 survey of EU consumers by the EU Eurobarometer, for the National Consumer Council, indicated 94% of European consumers want the right to choose whether to eat GMO food, and 70.9% ***do not want to eat this type of food at all.*** ((Eurobarometer – 55.2- European's Science and Technology – December 2001 RGSB Omnibus Survey for NCC August 2001 http://cgi.www.ncc.org.uk/cgi-bin/www.ncc.org.uk/kmdb10.cgi/-load75977_viewarchived.htm). In the same survey, 79% of EU consumers indicated they believe meat and other animal products produced with GMO feed should be labeled. survey indicated that between 1996 and 1999, attitudes of EU citizens toward GMO food became more negative (INRA (Europe)-ECOSA). ***The survey indicated that the most trusted sources of information on GMO food are consumer organizations and the Medical profession.*** As another example of EU attitudes toward GMO food, the ***British Medical Association*** recently indicated that "There has not yet been a robust and thorough search into the potentially harmful effects of GM foodstuffs on human health. On the basis of the precautionary principle, farm-scale [GMO] trials should not be allowed to continue." (*The Scotsman* Tuesday 19 November, 2002)

These indicators strongly suggest there is high risk that U.S. wheat exports would be seriously and negatively impacted by introduction of GMO wheat. Concerns of foreign consumers center around food and environmental safety questions, and perceived inadequacy of U.S. GMO testing and approval processes. There also is concern about the concentrated ownership of GMO patents on life forms among a very small and declining number of global firms. Existing and prospective patents cover major components of the world's food supply, namely corn, soybeans, wheat, and rice. It is not the purpose of this report to determine whether these concerns are warranted. ***However, it is essential to recognize that consumer attitudes are the driving force in markets, regardless of whether or not they are scientifically valid.***

It is also important to note that the Cartagena Global Protocol on Biosafety is rapidly approaching final ratification. For implementation, 50 nations are required to ratify it. Through the end of January, 43 countries had ratified it (including five in the last two months). This agreement spells out a number of procedures to be applied in the introduction and international regulation of the hundreds of biotech foods that are expected to be developed in the next few years. It provides for countries to use the precautionary principle in deciding whether to accept imports and production of GMO crops, and likely will further encourage widespread labeling of GMO crops and food moving in international markets (<http://www.biodiv.org/biosafety/>).

Other critical U.S. and international issues related to commercialization of GMO wheat involve legal liability questions related to cross pollination, accidental contamination of seed, co-mingling in grain or food marketing channels, and at processing plants. Organic wheat producers also are very concerned about market loss and liability issues involved if their crops are contaminated from neighboring GMO fields and cause loss of markets.

Our analysis of two to six-year export and price impacts on other hard red spring wheat and durum wheat are shown in Tables 1 and 2 below, for three alternative scenarios. These estimates assume that Canada will not adopt GMO wheat during this time period. Current indicators suggest that is a reasonable assumption. U.S. adoption of GMO wheat at a time when foreign customers are not ready to buy it would create large risks of reversing the decades-long U.S. international wheat market development work. It also would create high risk of accelerated foreign investment in the agriculture of former Soviet republics and Eastern Europe, in a pattern resembling the foreign investment in Brazilian agriculture after the U.S. grain embargo of the early 1970s. Former Soviet republics and Eastern Europe have become major grain exporters, with an estimated exportable supply of about 1.5 billion bushels in the current marketing year.

Table 1. Estimated Hard Red Spring Wheat Short-Run Export and Price Impacts from Commercialization of GMO Spring Wheat in the U.S.

	Mil. Bu. Export Loss	Percent of 2001- 02 U.S. HRS Exports Lost	Percent of 2001-02 U.S. HRS Total Demand Lost	Estimated Farm Price Impact on HRS Wheat *
Scenario I	88	43%	16.5%	-33%
Scenario II	67	33%	12.6%	-32%
Scenario III	110	52%	20.7%	-35%

Depending on U.S. consumer acceptance, negative price impact might be tempered slightly by substitution for Hard Red Winter wheat in domestic milling markets

Table 2. Estimated Durum Wheat Short-Run Export and Price Impacts from Commercialization of GMO Spring Wheat in the U.S.

	Mil. Bu. Export Loss	Percent of 2001- 02 U.S. Exports	Percent of 2001-02 U.S. Total Demand	Estimated Farm Price Impact, Durum Wheat
Scenario I	32	82%	26%	32%
Scenario II	28	71%	23%	32%
Scenario III	34	87%	28%	32%

To estimate potential export and price impacts from commercializing GMO wheat, we use the following three types of short-run export market responses to a U.S. commercialization of RoundUp®-Ready hard red spring wheat:

- **Scenario I:** Loss of the entire EU spring wheat and durum wheat export markets plus 40% of the other GMO labeling and prospective labeling markets shown in Figures 1 and 2 below, with no loss of non-labeling markets.

- **Scenario II:** Loss of the entire EU spring wheat and durum wheat export markets plus 25% of the other GMO labeling and prospective labeling markets with no loss of non-labeling markets.
- **Scenario III:** The U.S. provides a certified non-GMO marketing system to provide guaranteed non-GMO wheat to all GMO-labeling and prospective labeling export markets, at an added cost of \$0.45 per bushel. The entire EU market is lost, along with 50% of the non-EU labeling and prospective labeling markets, and 20% of these non-EU markets utilize the non-GMO certification system. The remaining 30% of the labeling and prospective labeling markets and 100% of the non-labeling export markets buy GMO wheat. All of the certification costs are paid by final users of the grain, and farmers receive an \$0.18 per bushel premium for non-GMO wheat.

Figure 4 below shows the declining long-term trend in the U.S. share of global wheat exports. For the U.S. to maintain or enhance its share of world wheat exports, it will be important to provide consumers with the quality of wheat they desire at competitive prices. If the U.S. attempts to supply world markets with both GMO and non-GMO wheat from the same producing regions as in Scenario III, foreign consumers will be faced with the following question. *"Should I buy certified non-GMO U.S. wheat at a premium price that includes the costs of segregation and certification, or can I get similar wheat from other suppliers without paying segregation costs?"*

Our market-loss scenarios are based on the assumption that in the short-run (2 to 6 years), alternative non-GMO supplies will be readily available in other countries, without the need for segregation expenses. At this writing, that appears to be a valid assumption, although it may not be valid in a longer-run time frame. Table 1 above shows the estimated millions of bushels of negative impacts on U.S. hard red spring wheat exports, total demand for this class of wheat, and price impacts for the three scenarios. In each case, loss of export markets forces excess wheat supplies into the domestic feed market in competition with corn and other feed grains. However, large feedlots are not present in most of the northern Great Plains of the U.S. Accordingly, feed wheat prices likely would also be depressed by the cost of shipping to intensive livestock feeding areas further south. These costs could be partially offset by the higher feeding value of wheat than corn, although the Northern Plains region would be likely to face intense competition from emerging innovations in very large, low-cost shuttle-trains. Table 2 shows similar impacts for durum wheat, due to very low GMO tolerance levels in major durum export markets and consumer concerns about GMO contamination in U.S. production and marketing systems.

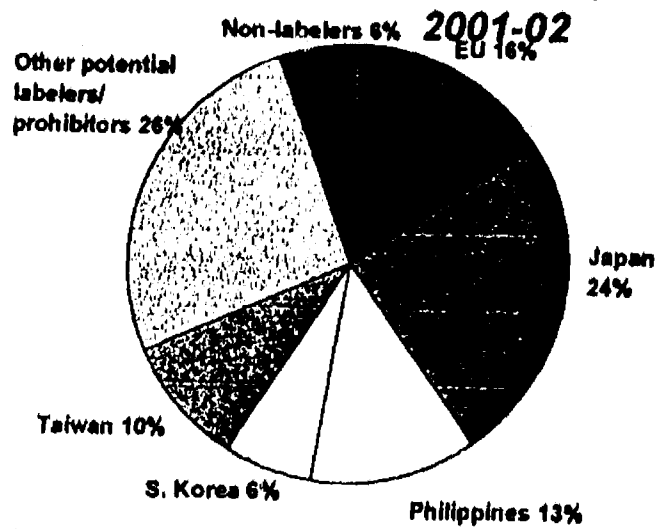
The figures below show the importance of various markets for U.S. hard red spring wheat and

Countries requiring GMO labeling 01/03

U.K.	Greece	Italy
Belgium	Portugal	S. Korea
France	Spain	Japan
Netherlands	Sweden	Czech Rep.
Germany	Finland	Hungary
Luxembourg	Austria	Saudi Arabia
Switzerland	Poland*	Japan
Denmark	Australia	Mexico
Ireland	New Zealand	Russia
Paraguay	China	Ethiopia
Slovenia	Thailand	South Africa
Sri Lanka	Taiwan	Malaysia

*Not enforced, but will be with EU entry

Figure 1. Shares of U.S. Hard Red Spring Wheat Exports by Destination,



durum wheat.

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**Figure 2. Shares of U.S. Durum Wheat Exports
by Destination, 2001-02**

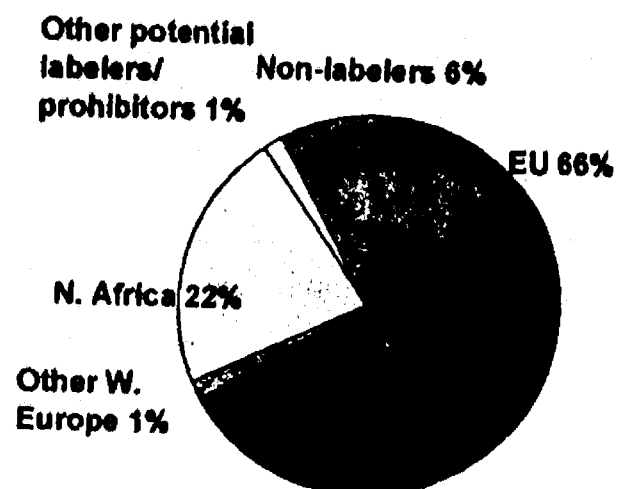
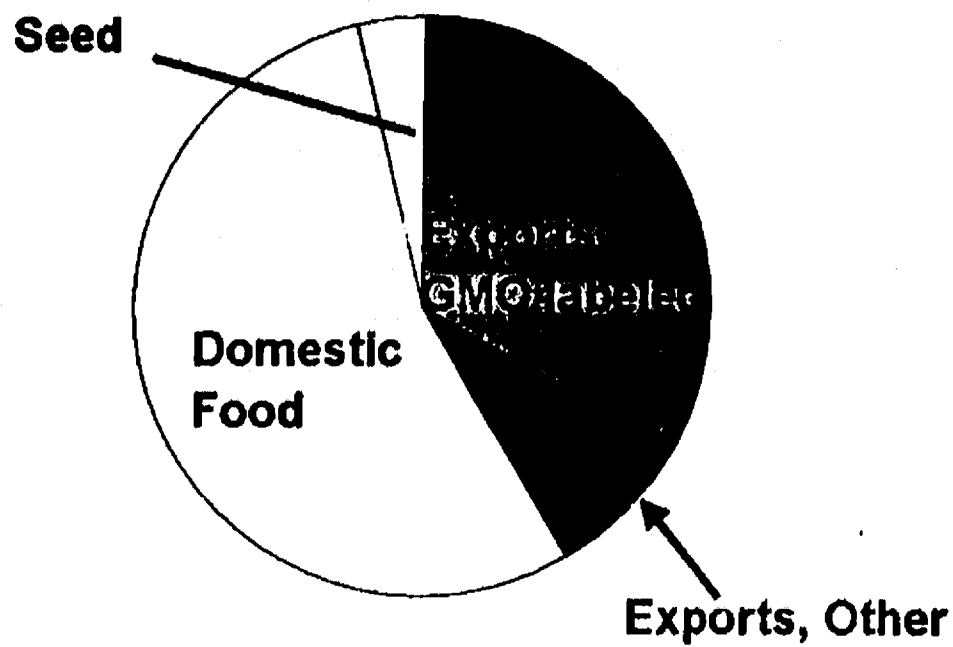
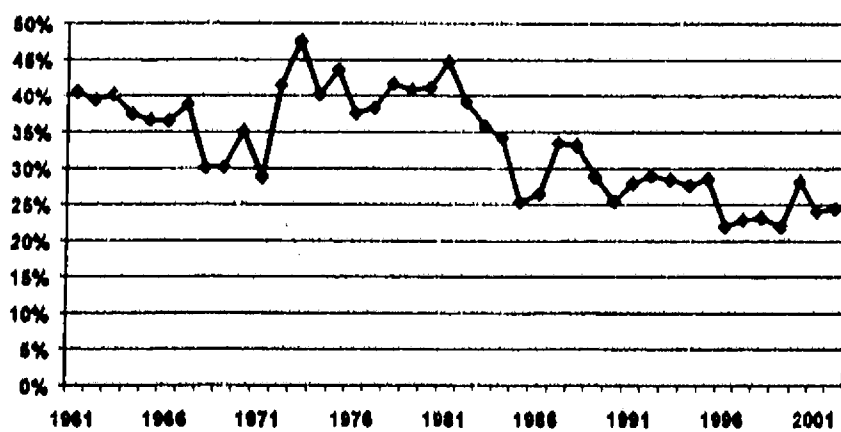


Figure 3

**U.S. Hard Red Spring Wheat Use By
Type, 2001-02 Marketing Year**



**Figure 4. U.S. Share of World Wheat
Exports, 1961-2002**



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Dear Chairman Flakoll and Ag Committee members.

Dan Erbele

I would like to thank you for this opportunity to speak in favor of Senate Bill 2408.

I would like to talk to you from under the three hats that I wear of which I call my profession as they pertain to issues of contamination and segregation in the GM wheat controversy.

In 1992, I started cleaning grain in a small country elevator in Temvik, ND. As I was cleaning, I noticed a small amount of barley in the clean wheat in a farmers' truck. The wheat was clean when it came off the cleaner. The barley came from the leg elevator. A small amount of barley, approximately 5 gallons, had stayed in the bottom of the leg, and as the leg was used to take the clean wheat to the truck, it became contaminated as it moved back to the truck. There is literally no efficient way to clean out the bottom of these leg elevators which are in use in almost every grain handling facility today. To solve that problem, I removed the cleaner from the elevator and mounted it on a trailer which I move around to farmers in my area. Even now, with cleanouts on my augers, thorough cleaning after job completion, and flushing the cleaner with grain at startup, I can see many areas where contamination could occur. Kernels of grain get stuck in cracks and crevices and on ledges inside the cleaner, in the bottom of augers, in screens, and in weighing equipment. Even with careful and meticulous cleaning, it would be impossible to guarantee that every kernel of grain is removed from my cleaning equipment. I have no idea how every single kernel of grain could be removed from the grain handling and cleaning equipment in grain handling facilities today. Therefore, guaranteeing segregation of GM wheat from non GM wheat is an impossibility if the grains are handled in the same facility.

As an independent trucker of small grains for the past 6 years, I have seen another aspect of the segregation problem. Along with the ledges, cracks and crevices in the truck where grain can get hung up on, the human factor comes into play. Under pressure to get a job done, humans become careless and small things get overlooked. The trucker may overlook the cleanout of the trailer before reloading it. The farmer may overlook the need to keep grain varieties separate in an attempt to make a full load. The grain elevator may overlook switching bins when grain is dumped, or needed repairs in switching equipment is postponed until a more convenient time. When the grain is cleaned in elevators, they don't

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So what I've seen as a trucker is that with the combination of human error and the handling equipment problems, there is no way to guarantee that GM wheat can be segregated without separate handling equipment and facilities and transportation equipment. Who is going to pay for the mammoth cost of this scenario????

As an organic farmer, I have invested time and money to do the planning, field work and paperwork necessary to attain these higher standards. I choose to be an organic farmer because I do not believe that all of the chemicals and fertilizers used in conventional farming are beneficial to human health and the health of our soils. FDA with it's approved tolerance levels for chemical residues on or in our foods, says it's alright but in my way of thinking, any residue is too great a risk. Others must agree with my thoughts as the organic industry has enjoyed tremendous growth in the past years and is projected to grow at a rate of 20% per year for the next 5 years. I see a greater display of organic products even in Bismarck's grocery stores with more and more people shopping in those aisles. I have to wonder what will become of this growing, consumer-driven businesses if continued contamination of our crops through the processes already mentioned should continue. Already the contaminations which have occurred in Canola, Soybeans, and Corn threaten the existence of pure, organic crops. The inclusion of another GM product, namely wheat, will further erode and destroy this growing business of which ND is a leader. Whereas, GM wheat has no established market and causes many great concerns to the growing organic industry, ND only stands to lose economically by allowing GM wheat into our state.

Along with these issues of contamination and segregation are issues of Seed saving rights, marketability, environmental protection, and liability. All of these issues need to be addressed for the protection of family farmers who are the backbone of the farming industry in the great state of North Dakota.

Senate Bill 2408 would set up a committee to oversee the above mentioned issues and would have the power to regulate the introduction of GM Wheat if and when that becomes necessary. For the protection of our farmers, our elevators, our small and large towns, and for our state, I urge and implore you to put this safety net in place. This legislation is only to insure that all the issues are looked at and answered before the authorization to introduce GM Wheat is approved in North Dakota.

Thank you
Robert Bornemann.

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Todd Leake,

Testimony before Senate Agriculture Committee

SB 2408

Feb. 13, 2003

I am Todd Leake, speaking for the Dakota Resource Council, a community organizing group with seven chapters around the state. We support SB 2408 because, no federal regulations address the critical issues of protecting North Dakota's wheat export markets, assure an effective system for segregating genetically modified from non-genetically modified wheat, or address liability issues. Federal regulations do not historically allow for Farmer and Wheat Industry input into a product release that will have huge impacts on their livelihoods. SB 2408 would allow North Dakota to rectify that absurd oversight in the federal process, granting farmers and elevators at the very least, some chance to be heard.

Roundup Ready HRS wheat varieties, genetically engineered versions of commonly planted HRS wheat varieties, are being developed by Monsanto corporation. Monsanto has been testing Roundup Ready wheat in North Dakota, and, on December 19, 2002, Monsanto corporation applied to USDA APHIS, for a "Petition for determination of nonregulated status" under 7 CFR 340.6. This deregulation process will take approximately 12-16 months. If approved, this will result in Roundup Ready, GMO wheat being available for commercial production, at the discretion of Monsanto Corporation and their partners, possibly as early as 2004, likely in 2005.

In the case of Roundup Ready wheat, the Environmental Protection Agency (EPA) must approve a tolerance level for the amount of glyphosate (or Roundup) residues on wheat, but has no other regulatory authority.

The Food and Drug Administration (FDA) will review any submissions that Monsanto may make concerning food safety, but submissions are voluntary on Monsanto's part, and again there is no opportunity for public comment. Monsanto may have submitted research to FDA voluntarily, but North Dakota farmers and wheat utilizers would not know until FDA announces that it has reviewed the material in the Federal Register.

Neither EPA, FDA or APHIS has authority to require information about, much less regulate, the costs of segregating genetically modified wheat from conventional wheat, the impacts of introduction on foreign or domestic markets. They have not other authority to protect North Dakota farmers from economic losses that may be caused by the release of genetically modified wheat.

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During the Interim Ag Committee hearings we heard expert testimony from the University of Manitoba on the mechanisms of cross pollination, the increase of Roundup Ready wheat through volunteer grain and the use of the selective agent, glyphosate herbicides, and the spread of these genes through the plant populations. We also heard expert testimony on the difficulties of segregating GMO wheat from the farm to the mill. We believe there is no reasonable question that gmo wheat will spread through the wheat crop just as it has through soybeans, canola and corn.

Many major export markets for North Dakota Hard Red Spring wheat are currently restricting the importation of genetically engineered commodities. This will include any genetically modified wheat, such as Roundup Ready or any other GMO wheat. Japan, the European Union, and several Middle East and Asian countries, including Algeria, Egypt, Korea, Taiwan and India, restrict or ban the importation of genetically engineered crops and products. In the case of the European Union, the "Novel Foods Directive", the Deliberate Release Directive, and their pending replacement regulations dictate the strict if not onerous manner in which genetically engineered crops and products may be imported and used within EU member countries. Japan imposes regulation and restrictive protocols on importation of genetically engineered commodities. These markets alone account for the historic majority of U.S. Hard Red Spring wheat exports and our growing Far East and Middle East market countries have determined or are in the process of determining their import restrictions..

It has been suggested that these laws and restrictions are "non tariff trade barriers", and perhaps they are. But last week, the US trade representatives office indefinitely postponed any trade action concerning the EU's GMO import restrictions. With the impending release of genetically engineered wheat and it's potential to become pervasive in the North American export wheat supply, and the regulatory and market barriers in major market countries in place showing no significant sign of being relaxed, U.S. wheat exports could realize a disadvantage when competing with other wheat exporting countries.

We may be suffering a trade disadvantage simply from the anticipation of GM wheat production in the US, as market countries and companies explore alternative suppliers. Much has been said around the world about genetically engineered commodities. Markets, millers, manufacturers, grocery chains, notably in the EU and Japan have are concerned about or rejected GM ingredients. Recently much has been said about the "New Wheats", wheat varieties that promise to yield pharmaceuticals and industrial chemicals. In fact much of the gain to be got from GMO wheat is supposed on the introduction of these second generation GMO's. The National Food Processors Association has issued a position statement against these second generation GMO's. "In view of the food industry's commitment to the safety and quality of the food supply, NFPA finds there is an unacceptable risk to the integrity of the food supply associated with use of food and feed crops as "factories" for the production of pharmaceuticals or industrial chemicals." We as wheat producers have small confidence in the future market acceptance of roundup ready or the "new wheats". We need to make a positive statement

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to our customers both domestic and export that we will continue to supply them with the conventional, non GM wheat they demand.

This commission, if created, would have the regulatory power to determine the sale of GMO wheat in North Dakota, and give ND farmers and the ND wheat industry a fair say on whether it should be introduced. These are serious matters being imposed upon us from outside. The Federal government does not have authority or the will to protect North Dakota wheat farmers. It is up to us to provide that protection here in North Dakota

Thank-you for the opportunity to testify.

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DATE: Thursday, 13 February 2003

TO: Members of the N.D. Senate Agriculture Committee
Sen. Tim Flakoll, Chairman
Sen. Robert S. Erbele, Vice Chairman
Sen. Jerry Klein
Sen. Herb Urlacher
Sen. Ronald Nichols
Sen. Tom Seymour

*Erbele
Dan*

FROM: Dean Hulse*
1437 East Gateway Circle
Fargo
701-232-7997

*a member of both the Dakota Resource Council and the Northern Plains Sustainable Agriculture Society, but today representing myself as a resident, a landowner, and a consumer who prefers organic foods and who believes I have a right to such preferences

RE: Testimony in support of Senate Bill No. ²⁴⁰⁸2408

Senate Bill No. ²⁴⁰⁸2408 provides the last, best hope during the current legislative session of establishing regulatory safeguards for protecting a state and national treasure: foundation seedstocks of non-transgenic hard red spring wheat and durum. Therefore, I urge members of the Senate Agriculture Committee to attach a "do pass" recommendation to this legislation.

One of government's key roles is to ensure public safety, a duty that often involves protecting public property. North Dakota's foundation seedstocks of hard red spring wheat and durum *are* public property, but a premature release of transgenic wheat could result in contamination of PUBLICLY OWNED non-transgenic seedstocks. I define as premature any release of transgenic wheat occurring BEFORE issues relating to segregation, market acceptance, and liability have been resolved. Timing the release of transgenic wheat is a states' rights issue, and legislators who favor pushing the burden of protecting their citizenry up to the federal level – where no safeguards against transgenic wheat contamination currently are in place – are simply shirking their responsibility as elected officials.

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HOME

From Dean Hulse Monsanto's gene-altered crops in India

(Monday, Feb. 10, 2003 -- CropChoice news) -- S. SRINIVASAN, AP: BENAKENAKONDA, India - Here, under a blazing sun in a southern Indian cotton field 9,000 miles from U.S. biotechnology giant Monsanto Co.'s headquarters, Chikkappa Nilakanti has literally sown seeds of discontent.

Nilakanti is one of 55,000 farmers in India who recently planted cotton genetically engineered by Monsanto to fight pests without pesticides.

India permitted the crop into the country last year after a raucous four-year battle and that decision is still being hotly contested in a country that has always been skeptical of biotechnology.

Even now, no edible biotechnology crops are legally grown for consumption in India, the world's second-most populous country.

Nilakanti's small plot of land and thousands like it throughout India have become yet another front line in the global battle over biotechnology, which is demonized as the near-exclusive domain of the United States.

Still, slumping U.S. biotechnology companies are aggressively pressing to sell their wares in new places overseas, including pressuring the Bush administration to force open European markets.

St. Louis-based Monsanto is looking to shake off a year-long profit slide sparked by patent expirations, increased worldwide concern over biotechnology and a drought at home. The company forced its longtime chief executive to step down last month and promised angry stockholders it would do better this year. And so it is pinning some of its turnaround hopes on emerging international markets, including India.

India's cotton industry is notoriously inefficient. It has the most land under cotton cultivation but is only the third-largest producer of cotton. Consequently, Monsanto's promise of improving yields by as much as 60 percent resonated with the government.

Monsanto's cotton seed is spliced with genetic material taken from bacterium called bacillus thuringiensis and commonly referred to as BT. The bacterium harms bollworms but not people.

The biotech seed costs three times as much as the natural stuff, but Monsanto and its Indian partner, Maharashtra Hybrid Seeds Co., promise that the cotton crop, brand name Bollgard, will increase farmers' yields and cut costs because fewer chemical pesticides are needed.

But Nilakanti and pockets of other Indian cotton farmers who planted the biotech cotton seed complained that the pricey technology was a bad investment because their yields have not improved. The ruinous boll weevils have not disappeared.

Nilakanti paid about \$33 for a 450-gram packet of BT seeds, nearly four times the cost of traditional seeds.

Standing in his field, Nilakanti watched boll weevils pop up their heads as if in a greeting and then resume their business of eating away his cotton crop.

"BT bedaappa," Nilakanti said in his native tongue, Kannada. "I do not want BT."

Meanwhile, the same anti-biotechnology activists who fought to keep biotech cotton out of India have continued with their vocal campaign.

A survey conducted by an anti-biotechnology advocacy group, Research Foundation for Science, Technology and Ecology, called Monsanto's technology a failure, saying it has left "farmers in a great economic and livelihood crisis," and led to the emergence of "new pests and diseases."

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&
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Carrot

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Government and company officials dispute those findings and argue that the complaining farmers are in the minority. Even more gene-altered cotton is expected to be planted this year.

"BT cotton has done very well in all the five states where it was planted," said Ranjana Smatecek, Monsanto India's public affairs director.

Smatecek said Monsanto's genetically engineered cotton doesn't repel all bollworms but does reduce the amount of pesticide needed to control the pest. He said it's not surprising that farmers are finding bollworms on some of their engineered crops, because it takes up to three days for the insects to die.

Environment minister T.R. Baalu told Indian Parliament that Monsanto's cotton had performed "satisfactorily."

In the Feb. 7 issue of the journal Science, two Western professors published a paper supporting the government's position. David Zilberman of the University of California, Berkeley and Martin Qaim of the University of Bonn said they found that BT dramatically increased yields and significantly reduced pesticide use.

The study's authors argue that BT cotton and similar technologies involving genetically modified organisms, or GMOs, hold particular promise for poor farmers in developing nations.

"It would be a shame," Zilberman said, "if anti-GMO fears kept important technology away from those who stand to benefit the most from it."

http://story.news.yahoo.com/news?tmpl=story&u=/ap/20030210/ap_on_hi_te/monsanto_india_4

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unable to attend

Members of the Senate Agriculture Committee:

Our Commission on the Future of Agriculture developed a vision statement for North Dakota agriculture. That vision is to become "The trusted provider of the highest quality food in the world." You don't do that by thumbing your nose at your customers. You don't build a trust relationship by dragging your customers to the 'World Court'.

If trust and quality are the standards then any new technology that brings with it the potential to compromise either trust or quality needs to be scrutinized closely. Our customers have emphatically told us they will no longer buy our premium hard red spring wheat if we grow Round-up Ready wheat. Rule number one in marketing is to know your customer; they will tell you what they want. And our customers are telling us they do NOT want Round-up Ready wheat.

We have had a lot of conversations with NDSU researchers and officials asking, "Where is the research on how far a genetically modified [GM] wheat needs to be from non-GM wheat to prevent cross-contamination?" We were told that research has not been done. NDSU applied for funding to do this research in the fall of 2001 but the proposal was not funded. We are being told that we will be able to keep Round-up Ready wheat segregated; we just need to develop a good handling system and that we can do this cost effectively if we develop 'reasonable tolerance levels' for contamination of GM wheat in non-GM wheat.

Pierre Hucl at the University of Saskatoon and University of Manitoba researchers Rene Van Acker and Anita Brule' Babel do have funding for the scientific research. The conclusions they have come to are stark. Here are the kickers:

- For herbicide tolerant traits, such as Round-up Ready wheat, even small amounts of gene flow can lead to high levels of GM volunteers when the herbicide is applied.
- Application of highly effective selection pressures (e.g. herbicides [such as Round-up]) that favor a GM trait (e.g. herbicide tolerance [such as Round-up Ready]) will lead to a rapid increase in the frequency of the GM trait, even with very low gene flow rates.
- GM traits that confer tolerance to herbicides that are highly effective and applied frequently in the production system represent a "worst-case scenario" for maintenance of non-GM standards.

Round-up Ready wheat is a 'worst case scenario'... The researchers stated that if released with no restrictions as soybeans, corn and canola were, contamination will occur very quickly. As a result 'reasonable tolerances' will not be able to be maintained and costs of trying to maintain those tolerances will sky rocket. Never mind the segregation in the handling system. It will already be contaminated in the field and the issues within the grain handling system will be an insurmountable problem.

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The bottom line is all farmers will end up dealing with Round-up Ready wheat, whether they choose to sign Monsanto's technology agreement or not. All of North Dakota's farmers will be put at risk if a single multinational corporation's proprietary property is given free reign. In today's climate, market rejection is a given. There will be heavy losses. Someone will pay. Someone will be responsible. And the consumers, who are our fellow taxpayers, will be asked to pay the bill for yet another disaster in farm country. Will they pay? This is not an issue with which to play political football. We have the responsibility to America's taxpaying consumers, to the economic stability of our state, to ND's tax base, and to ND's farmers to steward the economy of our state and the resources for our daily bread. We have a responsibility to pass this bill, giving us the tools to do so. You are our elected; the responsibility lies within you

Theresa Podoll
9824 79th ST SE
Fullerton, ND 58441
Phone 701-883-4304
Email tpnpsas@drtel.net

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Potential Effects of Gene Flow and Selection on Genetically Modified Traits in Wheat

A.L. Brule-Babel, R.C. Van Acker, and L.F. Friess, Department of Plant Science, University of Manitoba, Winnipeg, MB, R3T 2N2

Introduction

- Release of genetically modified (GM) wheat will require segregation of GM and non-GM wheat to satisfy international markets.
- Gene escape from GM wheat to non-GM wheat will affect volunteer wheat populations and the ability to produce non-GM wheat.
- It is important to understand the fate of a GM trait within the agronomic production system, before release of a GM wheat.

Objective

- To assess the effect of gene flow and selection pressure on frequency of GM traits in non-GM wheat and volunteers using basic population genetic principles.

Methods

- Population genetic models were modified to represent the reproductive biology of wheat.
- Out-crossing rates reported for Ocho and Kataura by Hall and Matus-Cadiz (2001) were used (Fig. 1). Additional gene flow estimates assumed that gene flow occurs within the first 10m of the field, but the frequency of the GM trait is reduced by 10, 50, and 100 times through harvest of a larger field area (Fig. 2).
- A selection pressure of 90% was used to represent a typical herbicide efficacy rate.
- Time represents the number of generations in which the selection pressure is applied.
- Estimates of contamination rates caused by GM wheat volunteers are based on a seedling rate of non-GM wheat of 200 seed/m².

Results and Discussion

Gene Flow in Wheat

- Gene flow can occur either through pollen or seed movement.
- Most out-crossing events occur within 3 m of live pollen sources, but out-crossing has been documented within 27m of source (Fig. 1).

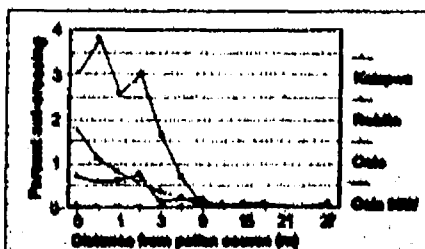


Figure 1. Mean out-crossing rates of Ocho, Kataura, and Ocho 90% for pollen and seed movement. Ocho 90% is a two year study conducted by Hall and Matus-Cadiz (2001).

Fate of a One-Time Gene Escape Event

- In absence of differential selection, GM traits will persist in non-GM populations at a frequency determined by the initial gene flow rate.
- Small population size can lead to random increases or losses in frequency of GM trait.

Fate of Repeated Gene Escape Events

- Repeated gene flow from a GM to a non-GM population will gradually increase the frequency of the GM trait in the non-GM population (Table 1).
- High gene flow rates may limit ability to meet minimum tolerances of GM traits in "zero-tolerance" seed of non-GM wheat.

Table 1. Percent GM plants in non-GM wheat resulting from various out-crossing rates.

Years	Out-crossing rate			
	1.0%	0.1%	0.01%	0.001%
1	1.00	0.1	0.01	0.001
2	1.00	0.100	0.01	0.001
3	2.07	0.200	0.01	0.001
4	3.04	0.300	0.01	0.001
5	4.00	0.400	0.01	0.001
Years to >0.50% GM plants	1	3	20	>100

Fate of a GM Trait with a Selective Advantage

- GM traits that have a selective advantage in the crop production system will increase in frequency.
- The fastest rate of increase occurs when a highly effective selective agent that favors the GM trait is applied frequently (e.g. herbicide).

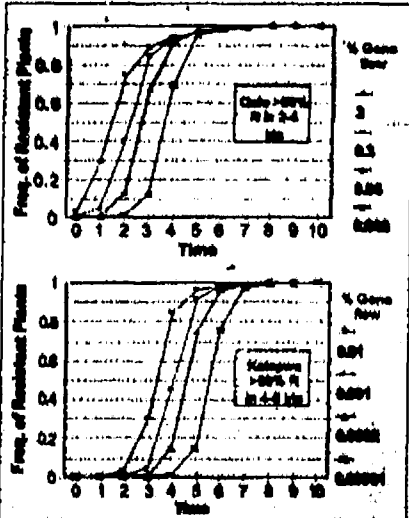
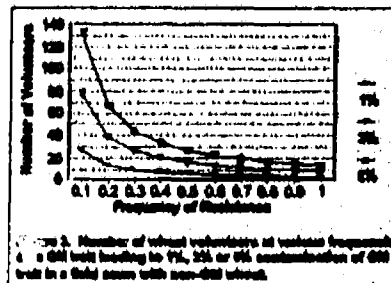


Figure 2. Effect of herbicide application (90%) on frequency of herbicide resistant GM wheat volunteers using initial gene flow estimates for Ocho and Kataura followed by 10, 50 or 100 times through harvest.

- For Herbicide Tolerant (HT) traits, even small amounts of gene flow can lead to high levels of HT volunteers when the herbicide is applied (Figs. 2).

Impact on Maintaining Non-GM Standards

- Density of pre-treatment wheat volunteers in the field range from 1-171/m², and are typically 20-40/m² (Margalit, 2001).
- Herbicide tolerant GM wheat volunteers may be present in fields due to gene flow followed by selection through herbicide application.
- Relatively low numbers of GM volunteer wheat can lead to problems in meeting minimum standards for GM trait in non-GM wheat (Fig. 3). When the GM trait is at a frequency of 50%, as few as 5 volunteers per m² could lead to a GM contamination rate of 1%.



Conclusions

- Once GM wheat is released it will not be possible to guarantee production of 0% GM wheat.
- GM traits that do not confer a selective advantage in a production system will increase slowly in non-GM wheat through gene flow.
- Application of highly effective selection pressures (e.g. herbicide) that favor a GM trait (e.g. herbicide tolerance) will lead to a rapid increase in frequency of the GM trait, even with very low gene flow rates.
- GM traits that confer tolerance to herbicides that are highly effective and applied frequently in the production system represent a "worst-case scenario" for maintenance of non-GM standards.

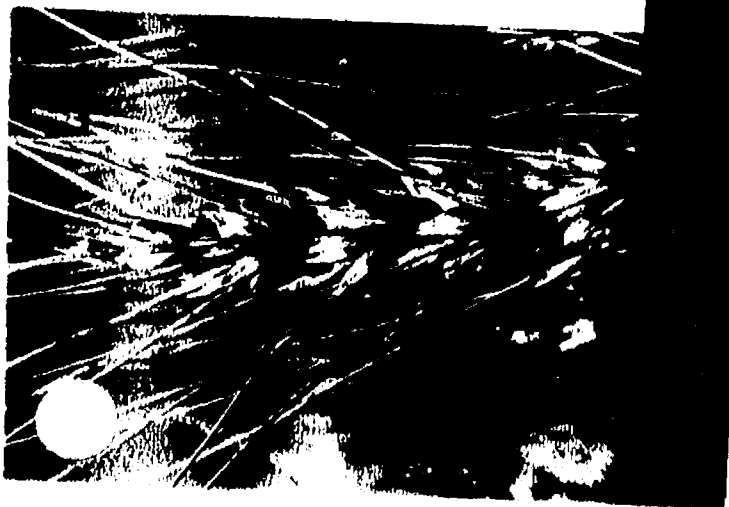
References

- Hall, P. and Matus-Cadiz M. 2001. Isolation distances for minimizing out-crossing in spring wheat. *Crop Sci.* 41:1046-1051.
- Margalit, A.M. 2001. Effect of tillage system and on-farm regional field location cluster on the emergence periodicity of wild oat and green foxtail. M.Sc. Thesis. University of Manitoba, pp. 120.

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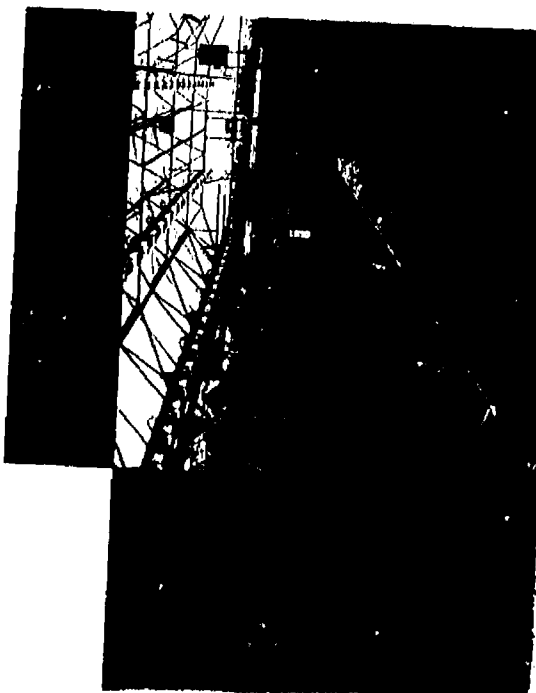
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Bringing New Technologies to Wheat

Information on
the Development of
Roundup Ready® Wheat



Biotechnology is providing new, highly effective ways to treat human disease, to manufacture chemical products, to eliminate waste, and to ensure abundant, healthful and affordable food for our world's growing population.

Several public and private breeding programs have entered collaborative agreements with Monsanto to develop Roundup Ready wheat varieties. The purpose of this brochure is to provide answers to common questions regarding the technology and the approach to market.

When will Roundup Ready wheat varieties be available to farmers?

Roundup Ready wheat will be introduced when the following milestones have been achieved:



The food, feed and environmental safety of Roundup Ready wheat is demonstrated, resulting in regulatory approvals in the United States, Canada and Japan. The intent is to commercialize in the United States and Canada simultaneously. Regulatory approvals alone will not determine when Roundup Ready wheat will be commercialized. The following milestones also will be met.



Appropriate regulatory trade approvals, thresholds or marketing agreements are in place in major export markets. This allows wheat to be traded based on buyer preferences and specifications.



Appropriate grain handling protocols and standardized sampling and detection methods are developed and implemented. This approach will provide meaningful choice for customers who prefer conventional or biotech grain. Grain handling protocols also will facilitate variety-specific marketing opportunities - creating potential added value for buyers.



Comprehensive agronomic stewardship programs and best management practices are developed. This includes an effective solution for managing wheat volunteers that contain the Roundup Ready trait.



Varieties meet or exceed industry standards for grain end-use quality. Varieties will be screened for unique quality attributes prior to introduction.



Buyers are identified who will procure and use wheat ingredients with biotech traits. Consumer acceptance for the technology is demonstrated by buyer and processor acceptance.

Aren't hundreds of acres planted to Roundup Ready wheat today?

In Spring 2002, there were approximately 35 acres of Roundup Ready wheat breeding and research trials planted in the United States - representing 0.00006 percent of the total U.S. wheat plantings.

Does this research place non biotech wheat feeds and seed stocks at risk?

No. We conduct all laboratory, greenhouse and field research with extreme care, adhering to or exceeding strict federal (USDA-APHIS) and state regulatory guidelines, which are designed to prevent the unintended introduction of biotech grain into commerce.

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Why are private and public breeding programs working with Monsanto?

The Roundup Ready system in other crops is a proven, highly effective weed control tool that saves growers time and money. Incorporating the technology into wheat could increase the competitiveness of wheat growers in the Northern Plains and provide a much-needed additional tool in weed-control options and improved profitability for growers. This collaboration provides opportunities for thorough and careful evaluations of the technology as it moves toward commercialization.

Will Roundup Ready wheat bring value to wheat growers?

The concept behind Roundup Ready wheat is to meet growers' weed control needs by providing complete, dependable, cost-effective control. Applications of labeled Roundup[®] herbicides may be made up to the five-leaf stage at rates designed to provide control of nearly all broadleaf and grassy weeds.

Years of field-trial data suggests the Roundup Ready system can offer North American wheat growers a compelling set of technical benefits including:

- Broad-spectrum weed control
- Increased crop safety
- Increased yield
- Cleaner grain
- A different in-crop mode of action
- Simplified weed management
- Conservation-tillage enhancement
- A reduced-risk environmental profile

Will Roundup Ready wheat become a weed that can't be controlled?

Growers will be able to use a broad range of herbicides and cultural practices currently available to control volunteer wheat. Monsanto and land-grant universities are conducting research to find the most effective method for control of volunteer Roundup Ready wheat. Identifying an effective solution to manage Roundup Ready wheat volunteers and to minimize risk is a primary objective for Monsanto.

Will adoption of Roundup Ready wheat cause us to lose markets?

We acknowledge and respect the complexities of today's trade and export environment, which represents approximately 45 percent of the market for U.S. spring wheat growers. As expected, some export markets have expressed a preference for conventional sources of wheat.

Monsanto is consulting the wheat industry - including export customers - to develop a commercial approach for Roundup Ready wheat that facilitates choice for wheat buyers. Monsanto will play an appropriate role within the wheat industry to consistently and confidentially meet those market preferences.

The wheat industry has an opportunity to inform customers about the safety and benefits of biotechnology prior to the time varieties will be ready for sale to growers.

Cooperative Programs in the Eastern Spring Wheat Region

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- South Dakota State University
Kevin Kephart
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- University of Minnesota
Beverly Durgan
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10/23/03
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North Dakota Farm Bureau

www.ndfb.org

**Testimony of North Dakota Farm Bureau
On Senate Bill 2408
Presented by Eric Aasmundstad, President**

Good morning Mr. Chairman, my name is Eric Aasmundstad I am a farmer from the Devils Lake area and president of North Dakota Farm Bureau. I am here this morning representing the 26,000 member families of North Dakota Farm Bureau in opposition to Senate Bill 2408.

North Dakota Farm Bureau supports moving ahead with the development of transgenic wheat varieties suited for our region. We also see the need to work on segregation protocols and market acceptance. We view this legislation as a thinly veiled attempt to place a moratorium on the production of transgenic wheat in North Dakota.

Why would North Dakota need to put in place another level of bureaucracy to cope with the release of transgenic wheat varieties when we already are subject to numerous federal safeguards? Before any biotech wheat could be grown commercially anywhere in the United States, much less North Dakota, it must be approved by a number of federal agencies including the Environmental Protection Agency, the Food & Drug Administration and the U.S. Department of Agriculture. We do not believe the North Dakota Industrial Commission or any other agency of state government would be an appropriate body to determine release timing. The agencies of the federal government I mentioned are well equipped with scientific data to make that decision, not the North Dakota Industrial Commission.

We are extremely concerned that this piece of legislation would violate intellectual property rights, patent rights, the interstate commerce clause in the constitution, and the

One future. One voice.

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rights of producers to apply any practice approved by federal agencies with purview over public health and safety regulations.

North Dakota Farm bureau believes it is time to stop the arguing and posturing and move agriculture in North Dakota out of the nineteen fifties and into the twenty-first century. If our producers are to maintain a competitive advantage with the rest of the world, we must rely on the growth of technology. Mr. Chairman and members of the Senate Agriculture Committee, North Dakota Farm Bureau respectfully requests a "Do Not Pass" recommendation on SB 2408.

Thank you for your attention and I would be pleased to answer any questions you may have.

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TESTIMONY

BY
CALVIN N. ROLFSON
IN OPPOSITION TO
SENATE BILL NO. 2408

Mr. Chairman and members of the Committee, my name is Cal Rolfson. I am an attorney in Bismarck. I represent CropLife America (CLA). CLA is the national trade organization representing the manufacturers, formulators and distributors of virtually all of the crop protection chemicals and agricultural biotechnology products sold in North America today.

I am here to urge this Committee to reject Senate Bill 2408, a Bill very similar to another one that was defeated earlier in this session in the House (House Bill 1026). That Bill proposed to create a transgenic wheat board, which received a DNP committee recommendation (10-3) and a "No" vote on the floor (27-65). Senate Bill 2408 actually goes further than its soundly defeated predecessor and attempts a more structured approval scheme and penalties for non-adherence.

The processes proposed in Senate Bill 2408 would have results that would be similar to a biotech wheat ban in North Dakota. Just how many ways can you spell "MORITORIUM".

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This Bill has too many hoops and not much accountability. Recall that a biotech wheat ban Bill was rejected by the legislature last session as well.

Biotech crops have to undergo rigorous testing and related processes through no less than three separate federal agencies: 1. USDA to ensure the crop is safe to grow; 2. EPA to ensure the crop is safe for the environment, and 3. FDA to ensure that the crop is safe to eat. Any additional regulatory attention to this at the state level would be costly, duplicative, and unnecessary.

Why differentiate between a biotech crop which is not even available now in the market (biotech wheat) and other existing biotech crops which have been on the market for years and are increasingly popular to the North Dakota farmer? Why not add biotech soybeans or biotech canola, or biotech corn to this Bill? Why try and establish onerous restrictions for a new technology which likely will greatly benefit the vast majority of this state's farming communities?

All this Bill will do is send a message to the world that North Dakota is an island state with a ag-research fence surrounding it - a state that wishes to avoid biotechnology and scientific research for our state farmers.

None our neighboring states, which also grow large quantities of wheat, have any such statutory authority to prohibit future biotech crops. We have seen several anti-biotechnology Bills introduced this session in North Dakota, along with similar

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measures in Montana, South Dakota and Kansas. We do not believe that the proposals in the other states have much support.

We should not try to make North Dakota an isolated island that is against modern tools for our agricultural communities.

I urge this Committee to adopt a "DO NOT PASS" recommendation on this Bill.



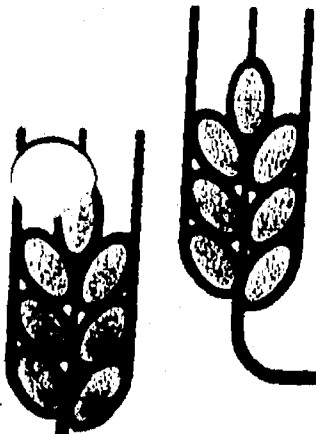
Calvin N. Rolfson
Legislative Counsel
CropLife America
(Lobbyist No. 144)

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NORTH DAKOTA GRAIN DEALERS ASSOCIATION

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TESTIMONY ON GM WHEAT SB 2408 Senate Ag hearing -- February 13, 2003

The North Dakota Grain Dealers Association is here to testify in favor of CONCEPT within this bill, while not commenting pro or con on the bill itself. The concept we support, and that we urge this committee and the entire legislature to adopt, is having more stakeholders than only the seed companies controlling the release of genetically modified spring wheat seed. Farmers, grain handlers such as country elevators, grain processors and grain exporters all have a vital interest.

Grain elevator managers deal everyday with the major milling companies buying spring wheat from North Dakota. Those companies are not seeking GM spring wheat. Even regulatory approval of GM wheat matters none if the buyers don't want it. This is a customer-driven market. Until the customer sees value, he has much to lose and little if anything to gain with GM spring wheat.

The economic drivers for the seed companies are not the same as for those of us in the grain handling, processing and exporting industries. Who is in a better position to know when there is sufficient market acceptance, the seed company or the grain handlers who deal with markets everyday? We think the answer is quite obviously the grain handlers.

We are not anti-GMO. In fact we have testified in the past to its great potential. Starlink corn was a debacle for the Corn Belt, and even into a few counties of North Dakota. Some of that just showed up in a shipload of corn in Japan, two years after it was to have been gotten out of the system. Some North Dakota seed stocks were jeopardized by some contamination in Chili. The genie can get out of the bottle quickly, and with very serious consequences.

We've heard legislators say that the grain elevators are able to segregate out most anything. Thanks for the confidence, but I hope everyone understands that segregating to zero tolerance is impossible. Keeping 14-protein wheat separate from 15-protein, where some of one leaked into the other is of little or no consequence, is quite different with something the market will react too much more vigorously. Some of us remember when vomitoxin was first found in our small grains in the early 90s. The Minneapolis market essentially shut down for a couple of days. When Karnal bunt was first found in the southwestern United States in 1996 all shipments from there were cut off. The same thing happened from four counties in Texas two years ago. It wasn't a matter of discounts, it was flat-out we don't want it.

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We are comparing MARKET REACTIONS. We aren't saying that food from genetically modified crops is dangerous. But in the market, perception is reality. Right now the perception, whether that be wrong or right, is not in our favor on GM wheat.

One indication of the seriousness with which this is considered in the market is that trading of the July 2004 hard red spring wheat futures contract on the Minneapolis Grain Exchange has been postponed while a committee formulates a recommendation to the Exchange board as to whether genetically modified wheat will be acceptable as delivery against futures contracts.

Foreign buyers representing nearly 50 percent of U.S. wheat exports request a declaration from the Federal Grain Inspection Service saying "There are no transgenic wheat varieties for sale or in commercial production in the United States at this time." Among the countries requesting the statement are the largest importers of U.S. wheat, including Japan, Mexico, the Philippines, South Korea, Taiwan, and Italy. What happens when FGIS can no longer issue such a declaration is not known. Many more stakeholders than seed companies have a vital interest in that. This entire state has a vital interest in that.

We've heard it said that North Dakota can't be an island. Please be aware that on January 27 the Montana State Senate passed SJR8 by a vote of 50-0 which says that the introduction of GM wheat and barley "must be carefully timed so that it occurs only when there is acceptance of these crops by Montana's major customers."

Our Association has never lobbied for a legislative statutory moratorium that could only be lifted by another session of the legislature. What we have supported and still support is a mixture of people who have a stake and knowledge of the situation to control release. Attached to this testimony is what was considered in the last session. We urge you to consider something like it again, with more marketing people on it.

I'll try to answer any questions you might have.

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2001 HB 1338 with Grain Dealers amendments added

SECTION 1. Genetically modified wheat seed committee. The genetically modified wheat seed committee consists of the agriculture commissioner, the president of the North Dakota farm bureau, the president of the North Dakota farmers union, the chairman of the wheat commission, the president of the North Dakota crop improvement association, the director of the North Dakota state university extension service, the director of the North Dakota agricultural experiment station, the president of the North Dakota grain growers association, and the president of the North Dakota grain dealers association, or their designees. The chairman of the wheat commission shall chair the genetically modified wheat seed committee. A meeting of the committee may be called by the chair or by any two or more members giving written notice to the chair.

SECTION 2. Genetically modified wheat seed - Restriction.

1. As used in this section, "genetically modified wheat seed" means wheat seed derived from the direct insertion of a gene construct, typically from a sexually incompatible species, using recombinant DNA techniques and genetic transportation technology.
2. A person may not sell, distribute, or plant any genetically modified wheat seed until the genetically modified wheat seed committee makes a determination by two-thirds or more of the committee members that the production of the genetically modified wheat is warranted by consumer acceptance and demand and by competitive market factors.
3. This section does not apply to any research-related efforts conducted under the auspices of public or private entities.

SECTION 3. EXPIRATION DATE. This Act is effective through July 31, 2003, and after that date is ineffective.

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Montana SJ SJ0008

2003 Montana Legislature

About Bill -- Links

SENATE JOINT RESOLUTION NO. 8

INTRODUCED BY J. TESTER

*Link
page 50-0*

A JOINT RESOLUTION OF THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA RECOMMENDING THAT IN RECOGNITION OF THE IMPORTANCE OF RESPONDING TO THE DESIRES AND NEEDS OF A MAJORITY OF MONTANA'S FOREIGN GRAIN CUSTOMERS, GENETICALLY ENGINEERED WHEAT OR BARLEY BE GROWN IN MONTANA ONLY WHEN THERE IS ACCEPTANCE OF THESE GENETICALLY ENGINEERED CROPS BY A MAJORITY OF MONTANA'S FOREIGN MARKETS; RECOMMENDING THAT RESEARCH OF GENETICALLY ENGINEERED CROPS SHOULD CONTINUE; AND ENCOURAGING REGULATORY AGENCIES TO RECOGNIZE THEIR RESPONSIBILITY AS GENETICALLY ENGINEERED CROPS ARE INTRODUCED.

WHEREAS, Montana's wheat and barley industry is a central and vital component of our state's economy; and

WHEREAS, Montana's export markets have recognized Montana wheat and barley to be among the finest in the world; and

WHEREAS, Montana has come to rely on these export customers to market a majority of Montana's grain to Pacific Rim countries; and

WHEREAS, a majority of these customers have not yet accepted genetically engineered grains; and

WHEREAS, the Legislature recognizes the importance of maintaining these foreign markets.

NOW, THEREFORE, BE IT RESOLVED BY THE SENATE AND THE HOUSE OF REPRESENTATIVES OF THE STATE OF MONTANA:

(1) That the introduction of genetically engineered wheat and barley for commercial production must be carefully timed so that it occurs only when there is acceptance of these crops by Montana's major customers.

(2) That research should continue in:

(a) development of crops and crop characteristics that appeal to the needs of the customer;

(b) development of crops and crop characteristics that are economically beneficial to the producer;

(c) development of safeguards to reduce outcrossing of genetically engineered crops with nongenetically engineered crops and weeds; and

(d) development of systems to reduce potential mixing of genetically engineered crops with nongenetically

<http://data.opi.state.mt.us/bills/2003/billhtml/SJ0008.htm>

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engineered crops.

(3) That regulatory agencies are strongly encouraged to recognize the magnitude of the responsibility that they have in the proper release of genetically engineered crops and do everything in their power to safeguard Montana's ability to meet the needs of their grain customers.

BE IT FURTHER RESOLVED, that the Secretary of State send a copy of this resolution to the United States Department of Agriculture, the United States Animal and Plant Health Inspection Service, the United States Federal Drug Administration, the United States Environmental Protection Agency, the Montana Department of Agriculture, and the Montana Congressional Delegation.

- END -

Latest Version of SJ 8 (SJ0008.01)

Processed for the Web on January 14, 2003 (1:31pm)

New language in a bill appears underlined, deleted material appears stricken.

Sponsor names are handwritten on introduced bills, hence do not appear on the bill until it is reprinted.

See the status of this bill for the bill's primary sponsor.

Status of this Bill | 2003 Legislature | Leg. Branch Home

This bill in WP 5.1 | All versions of all bills in WP 5.1

Authorized print version w/line numbers (PDF format)

Prepared by Montana Legislative Services

(406) 444-3064

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