

STEPHEN STAFKI
5 8 6 2 4 4^{T H} S T S H A M P T O N M N 5 6 3 3 9
P H O N E : (2 1 9) 4 3 3 - 4 0 8 1

May 25, 2004

Professor Dale Sullivan
NDSU

Dear Professor Sullivan:

Enclosed you will find the report that was requested concerning the public issues paper.

This report was completed with information gathered by reading many newspaper articles, a book by Bill Lambrecht, several research articles produced by professors at NDSU, and interviewing individuals that had opposing viewpoints on the issue..

It was my intent with this report to try and spell out some of the major communication problems that seem to surround the technological disagreements and hopefully give some insight into ways to correct these problems..

Sincerely,

Stephen H. Stafki
Inventory Control Supervisor
Junior-NDSU

Enclosure

Common Ground

Stephen Stafki
Junior- North Dakota State University

May 13, 2004

TABLE OF CONTENTS

	PAGE
ABSTRACT	IV
INFORMATION GAP	4
<i>Background</i>	
MARKET CONSEQUENCES	7
LEGISLATIVE AVENUES	8
CONCLUSION	10
REFERENCES	11

Abstract

In taking on this task of mediating such a volatile issue it became quite apparent to me that the biggest problem was the total lack of communication between the sides. Both opponents and proponents carry “big sticks” in this disagreement. Corporations come in with their money and perceived political clout while environmentalists, organic farmers, and other opponents use the public forums that are available to sway opinion against GMO products.

In this report I tried to give a history of different issues and what perceptions may surround them. I realize that not all these, if any, recommendations may be followed but the key here is starting the discussion. Without the two sides talking proper regulation will not be put into place which would have possible detrimental effects on not only those within the industry but also outside. Places that have fought it tooth and nail are finding out the hard way. Such as in Brazil, a soybean breeder from Monsanto says that Brazil is officially non-GMO. Yet between 60-70% of all the soybeans grown in Brazil this year are in fact Round-up Ready soybeans. This unregulated mess does not make many friends for Monsanto, and does little to help the credibility of those who are opposing GMO beans in Brazil.

So to sum this up, the thing that is in the best interests of all involved is to find the common ground and build on that.

Introduction

According to Chris Goblirsch, Station Manager in Fargo, ND for Monsanto, “in 1996 there were approximately 600,000 acres of GMO soybeans that were grown in the state of North Dakota. Jump ahead to 2003 and there was approximately 3.1 million acres planted with GMO beans.” This amounts to an 80% increase in genetically modified beans. Consequently new GMO products have arrived in North Dakota that are trying to conquer the same ground that soybeans have already mastered. Specifically wheat is trying to be introduced to the growing public and it is being met with resistance that threatens to derail any advancement that may be made.

There are many groups that are potentially affected by GMO implementation. However, within the scope of this mediation I will focus only on the two “primary” groups that have consulted me. They are seed companies such as Monsanto Company and the “Go Slow with GMO Committee”. Within the seed companies the group consists of the company proper, but also farmers and researchers that are focusing their efforts at GMO implementation. The GSGMO (Go Slow with GMO) group is made up of organic farmers and conventional farmers who are concerned implementation would destroy the already fragile wheat market in North Dakota.

Within the argument there is one point that both proponents and opponents feel fairly confident in supporting. The research currently going on at North Dakota State University should be allowed to continue, allowing for research dollars to flow into the state. Unfortunately that appears to be the only point that can be currently called, “common ground”.

The three main issues that surround the current wheat debate in North Dakota that were raised with me are:

1. What can be done about the information void that exists between the two sides?
 - a. Seed Companies offering biotech products need to alter the perceptions of a money hungry, corporate conglomerate and try to build consensus. This has to be done not only within the industry but to lawmakers and consumers.
 - b. GSGMO - need to offer ideas to help build the farming industry not just offering negativity on current practices.
2. What are the market consequences of North Dakota implementation of GMO wheat?
 - a. Seed companies and GSGMO- Dual marketing based upon the receiving entity's comfort level with GMO products would be necessary without the risks having been mitigated to the buyers (Wilson, Dahl, 2002). This is shown by the statement by the largest wheat miller in Italy, where if the United States allows commercialization of GMO wheat varieties, they will be forced to avoid importing wheat from any wheat region in the U.S. (Taylor, DeVuyst, Koo, 2003). Both sides of the issue would be greatly affected by an ill-timed implementation.
3. What Legislative avenues are possible that would benefit both sides of the issue?

- a. What are the acceptable risks involved? Does the U.S. plow down this row and drag the rest of the world or is the correct approach a variation on the go-slow approach?

These three items appear to be just the beginning in navigating the rough waters of GMO wheat. Since millions world wide are affected by the decisions that are made on North Dakota farms it is imperative that the right decisions are made. From Presidents to paupers the populations of many countries consumes wheat in some fashion. Those making those decisions are also weighing the potential risks and benefits of the product that they are growing, or might be growing and make decisions that not only put food on their tables but money in their pockets.

So moving through this report I hope that I am able to present both sides of these issues, how it may affect individuals and what steps that I propose should be made.

Methods

In researching these subjects I tried to focus my efforts using different mediums. Not only did I review opinions and reports found on websites, TV, and in newspapers but I also weighed information available from centers of higher learning, specifically North Dakota State University, to try and give me an unbiased look into the debate.

In my research I looked for pertinent articles that would bring to light for me not only the basics but what specifically about the issue is so polarizing. In my efforts to delve into the polarization of the issue I felt it necessary to get personal viewpoints of the

opposite ends of the biotech spectrum. I succeeded in obtaining an interview with an employee of the Monsanto Seed Company, Chris Goblirsch, a Station Manager/Soybean Breeder. My efforts to secure an interview with a member of the Sierra Club of North Dakota resulted in being directed to a couple of websites. Thus I was not able to fully take in the opposite view. However, moderate non-GMO viewpoints were discernable in newspaper articles and unfortunately must suffice for this exercise.

I then summarized information that I was given, worked at understanding the reasoning behind either support or negativity for GMO wheat, and came to some conclusions that will try to fill the gaps presented by the two interested parties.

On a side note, just the fact that both sides feel that there is agreement somewhere on this issue bodes well for the progress that is necessary in order to be able to feed the ever expanding world population.

Results and Discussion

Information Gap

This is by far the most troubling of the issue. In reviewing documents found in the news media, it is quite apparent that the two sides definitely have contrasting views. The problem is there appears to only be compromise on one side of the issue. Monsanto appears to be making some concessions in introducing new products as stated in *Dinner at the New Gene Café*, (P. 17, Lambrecht, 2001), a Monsanto employee Gene Grabowski states, “The longer time we have before a rush to judgment, the better off we are.”

Monsanto has offered slight concessions while still pushing their products vigorously. Mr. Lambrecht theorizes, “Had the ringleaders of biotechnology figured out how to better communicate the promise of their technology, they might have conquered first Europe and then the world,” (P. 63, Lambrecht, 2001). This appears to be a reoccurring problem in the early years of biotechnology. Biotech companies were so wrapped up in the potential benefits of biotech crops that they appeared to assume that the public would see the benefits and accept these new crops readily. This has not been the case at all.

Relate this to the current battle concerning biotech wheat that is raging in North Dakota. While threatening that any legal action brought against their new product would discourage investment in biotechnology (P. A7, The Forum, March 26, 2004), they appear to realize that unless they satisfy the concerns of the farmers who would not only grow it, but of all the farmers in the state, Monsanto will not have a profitable product. In the various articles related to this new type of wheat a recurring theme appeared, Monsanto was not making itself available for public criticism in face-to-face dealings. The opposition groups were coordinating their efforts and putting out quotes to the news media, while Monsanto seemed to only sit on the sidelines and hope their product would pass regulators and proceed to the field without answering opposition groups concerns. This lack of recognition appeared to generate a great deal of distrust. That is evident by statements such as Karl Limvere’s statement to The Forum in March of 2004 where he says, “Right now, the decision essentially is made by the biotech companies.” This relates to regulating and making future decisions concerning wheat in North Dakota.

On the other side of the issue, environmental groups appear to be firmly entrenched in their distrust, and I dare say hatred of “big companies” and the role that

they are playing in today's farming world. The current version of compromise for them is allowing the employees to lose their jobs and continue to breathe. This seems like an extreme assessment of the stance of environmentalists, and that is my point. No one always gets their way in everything that they do. Environmentalists are no exception. Groups such as Go Slow with GMO are not currently offering much in the effort to work with the biotech companies. It is definitely in the best interests of GSWGMO to find a way to compromise with biotechs to help advance farming science. Extremist views and sabotage of test plots (P. 38, Lambrecht, 2004) do not further cooperation and mutually beneficial advancement. To an organic farmer the possibilities of contamination of their crop and the possible financial ruin associated with it, should spur them to action. Monsanto has been around since the early 1900's they along with other biotech companies will continue to push their new products. Barring any outright ban of their genetically engineered products they will continue to develop and eventually receive approval for new types of GMO's.

Going forward in the realm of communication, one thing is clear, both sides have adopted a policy of ignorance to the issues and how they affect the other. Possible tremendous benefits may be lost if a total ban is placed on GMO products. Likewise, without participation and cooperation from the "little guy", mighty Monsanto will continue to fight uphill battles on their new products. Both sides have the potential to benefit them by listening to the other, and when that realization sinks in useful technology has a fighting chance.

Market Consequences

By going ahead with biotech wheat unilaterally seed companies face a public relations nightmare. In the March 2, 2004 Forum, “Foreign consumers have resisted the technology because they don’t have confidence in their food regulators”, said Al Schneider, chairman of NDSU’s plant sciences department. Reading between the lines in this statement it appears that Mr. Schneider believes that there are many foreign customers of North Dakota wheat who will simply not purchase United States wheat altogether because of the risk of contamination with GMO product. Farmers who do not take the risk of planting GMO wheat will possibly be penalized because their neighbor did. This spells potential financial disaster for North Dakota wheat growers if unapproved wheat is grown in North Dakota.

The grain handling infrastructure that currently exists in the state is definitely not prepared for dual marketing of the GMO and regular wheat that would potentially be grown side by side. The system envisioned would possibly consist of individual elevators that segregate their own facilities and grain handling from the field to the rail car would have to be done in transportation vehicles that are specific to a brand of wheat.(Wilson, Dahl, 2002)

Now I have mentioned the seed companies concern on this issue, but the organic farmer also shares this issue nearly in the same scope, as the biotech companies. With premature implementation of the product, the possibility of a substantial hit to the wheat market is highly likely. Fred Kirschenmann, an agricultural economist at Iowa State

University, stated in an article in *The Forum* on February 7, 2004, that the selling price of all North Dakota wheat would drop 32-35% if GMO wheat is introduced. Notice no distinction of what type of wheat is made by Mr. Kirschenmann, thus reducing the income of not only GMO farmers but all wheat farmers.

Introduction before market acceptance would be catastrophic to not only the farmers but all the small towns that dot the state. Many jobs within the towns depend on the money that farmers receive for the wheat crop each year and eliminating 32-35% of a person's income will have widespread "trickle down" effects.

Legislative Avenues

What direction is the future of GMO wheat heading in the near future in North Dakota? This is a question that most likely the state legislature will undoubtedly have a say in one way or another. As farming is one of the largest industries, if not the largest in North Dakota, the legislature is going to, at the very least, keep a close eye on this volatile issue. Going forward both sides need to make a determination as to what paths they will take individually. Will the corporations work with and listen to the farmers? Will the farmers accept new technology or fight it tooth and nail and have it approved without their input? These are issues that the state government may step in and take control of whether or not there are objections from either side. What should be done?

First of all, the seed corporations need to present a front that incorporates farmers as part of the discussion group. Seed companies, not only farmers that have agreed with

them from the beginning, but also some that they have won over during this discussion.

This is already developing somewhat based upon two things:

1. Both GMO opponents and proponents agree that NDSU needs to pursue research in this area along with the federal research dollars that are available to study this issue. (Forum, P. C1, March 2, 2004)
2. In an interview with Chris Goblirsch, seed breeder for Monsanto, he stated that he knows that without public input and acceptance it is not profitable or worthwhile to invest the 7 years that it takes to manipulate new variations of GMO products.

Now this does not appear as a large step, but any progress is good. Just changing the mindset of the players in this issue is $\frac{3}{4}$ of the battle. The next steps are that which is going to be most beneficial.

Secondly, the opponents of GMO products need to realize that their livelihoods are somewhat dependent on what these corporations do, even if they do not spend one dime with them. It is truly incumbent upon these individuals to look for avenues of agreement and nurture these to fruition. Then the next steps for the sides, the ones that will be more difficult, will come easier. Opponents of GMO products will find that working with seed companies should benefit them exponentially in the long run, as opposed to any short term gains that they may achieve by keeping an entirely closed mind on this issue.

Conclusion

This is not an issue that will die easily. Without some cooperation between the sides large defensive walls will be built. When these walls are smashed down, it will do much more harm than if the problems were analyzed more carefully now. Farmers who think that they never have to change their ways are quickly becoming a blip in history. Without change the profit margin in farming is swinging to the negative side. On the other side, corporations who's only interest is the bottom line and not also what is good for society and the environment, will face financial difficulties in this competitive age, and possible bankruptcy.

Both sides have made strides since the early debates and with continued effort both will find that being each other's friend will profit them more than continually making enemies.

Common Ground, What can be done to build consensus concerning GMO wheat and soybeans in North Dakota.

by Stephen Stafki

Background

Writings mentioned here will inform the reader of some literature that is available to allow for more background on GMO products.

Bill Lambrecht. *Dinner at the New Genre Café*. New York, N.Y. St. Martin's Press, 2001

A book that is a culmination of years of reporting on GMO issues for the St. Louis Post Dispatch. Mr. Lambrecht conducted many interviews and did much investigative reporting from the Midwest to Foreign countries on the varying viewpoints in the world concerning GMO crops.

Current Issues

Items listed in this section look at the current situation and opinion of GMO crops not only in North Dakota but worldwide.

Janell Cole, (2004, February 7). Group seeks GMO ballot. *Fargo Forum*, P. A1, A18.

This article explains the efforts of a group of North Dakotans who want a “go slow” approach put into North Dakota law concerning GMO wheat.

Jeff Zent, (2004, March 2). Biotech wheat release debated. *Fargo Forum*, P. C1, C3.

This article discusses the issue of Monsanto's proposed release of GMO wheat in North Dakota and the partnership between Monsanto and North Dakota State University.

Dale Wetzel, (2004, March 26). Restrictions urged on modified wheat. *Fargo Forum*, P. A1, A7.

The emphasis of this article converses about the proposed ballot measure and the petitions that are going to be circulated to collect signatures to have voters decide whether the Agriculture Commissioner should have the authority to decide if GMO wheat could be grown in the state.

Tamara VanWechel, Cheryl J. Wachenheim, Eric Schuck, David K. Lambert. (2003) *Consumer Valuation of Genetically Modified Foods and the Effect of Information Bias*, Fargo, N.D. North Dakota State University

This report details an experiment that was conducted evaluating the effect on Midwest consumers with or without knowledge of GMO products in their food and the resulting buying habits. The researchers also conducted an experimental auction measure the influence of information bias concerning GMO ingredients.

Richard D. Taylor, Eric A. DeVuyst, Won W. Koo, (2003) *Potential Impacts of GM Wheat on United States and Northern Plains Wheat Trade*. Fargo, N.D., North Dakota State University

This report measured the potential effects concerning the economic effects on our region using different scenarios of varying levels of GM wheat production.

Dr. William W. Wilson, Bruce L. Dahl, (2002) *Costs and Risks of Testing and Segregating GM Wheat*. Fargo, N.D. North Dakota State University

This leaflet summarized an earlier report from these researchers labeled Agribusiness and Applied Economics Report No. 501. This leaflet discusses the elements of a dual marketing system for wheat, the costs for testing GMO wheat, and the effects on pricing and truth telling from the wheat grower on importer rejection rates.

Editorial, (2004, March 6) Get more control on GMOs. *Fargo Forum* (reprint of editorial from *The Washington Post*) P. A17

This editorial speaks to the commingling that was discussed in a report from the Union of Concerned Scientists.

Associated Press, (2004, February 19). EU Leaves biotech food ban in place. *Fargo Forum*, P. C1, C3.

This article looks at the European Union's decision to leave a ban on biotech crops and the difficulties that countries continue to have with GMO products.

Associated Press, (2004, March 10) Britain OK's genetically modified commercial crop. *Fargo Forum*, P. C1

This article discusses some of the worldwide progress that has been made to implement GMO crops. It specifically talks about GMO corn that will be grown for the first time in Britain.

