

July 12, 1999

DuPont

Ag Biotech: Thanks, But No Thanks?

Rating Remains

Market Perform

Price

USD 71 11/16

Exchange: Ticker

NYSE:DD

FY: (Dec.)	1Q	2Q	3Q	4Q	FY	CY	CY	Rev
					EPS	EPS	P/E	MM
EPS (USD):								
1998A	\$0.68	\$0.74	\$0.53	\$0.60	\$2.54	\$2.54	28.2	
1999E	0.66A	0.72	0.66	0.66	2.70	2.70	26.6	
2000E					3.00	3.00	23.9	

Source: Deutsche Banc Alex. Brown estimates and company information.

52-Week Range:	\$50-81	ROE:	13.1%
Shares Outstanding: (MM)	1,138	LT Debt: (MM)	\$4,566
Market Cap: (MM)	\$81,580	Net Debt/Total Cap:	56%
Avg. Daily Volume:	2,975	Div./Yield:	\$1.40/2.0%
S&P 500:	\$1,403	3-5 Yr. Grth. Rate:	9%
Current Book Value/Share	\$12.42	CY 99 P/E-to-Grth.:	2.8x

- Although we are willing to believe that GMO (genetically modified organisms) crops are safe and may provide a benefit for the environment, the perception wars are being lost by industry.
- Consumers may very well decide that biotechnology derived foods are not as appealing as all-organic or current offerings: "Thanks, but no thanks."
- European concerns are very real and not merely a political trade barrier.
- Deutsche Banc Alex. Brown's food and seed analyst Tim Ramey's recent call on the bifurcated market developing with a PREMIUM on non-GMO crops ought to be disturbing to the companies and investors looking at ag-biotech.
- Prudence dictates that a longer time horizon will be required for consumer acceptance of ag-biotechnology.
- We are maintaining our MARKET PERFORM rating on DuPont and believe that the growing negative sentiment toward GMOs creates problems for Pioneer Hi-Bred (NYSE-PHB-38 13/16-Market Underperform), Monsanto (NYSE-MTC-41 15/16), Delta & Pine Land, Novartis (OTC-NVTSY-72 1/8), and, to a lesser extent, Dow (NYSE-DOW-132 3/4-Market Perform).

Frank J. Mitsch(+1) 212 469 5384
frank.mitsch@db.com**Jennifer S. Mitchell**(+1) 212 469 5395
jennifer.mitchell@db.com

Table of Contents

Ag Biotech: Thanks, But No Thanks?	3
The GMO Debate.....	3
Europe versus the United States of America	4
Premiums for Non-GMOs.....	8
“Against the Grain”	9
The Ag-Biotechnology Revolution.....	11
Appendix 1: GMOs – What Are They Saying in Corn Country?..	14
Appendix 2: GMOs Are Dead	16

Table of Exhibits

Figure 1: Attitudes to Genetically Modified Foodstuffs	5
Figure 2: Premium for Non-GMO Soybeans	9
Figure 3: Unresolved Questions From <i>Against the Grain</i>	10
Figure 4: Biotech Market Opportunity	12

Ag Biotech: Thanks, But No Thanks?

Perception is key

Let's state up front that this is not an indictment against the safety of GMOs (genetically modified organisms). We are willing to believe that the GMO crops are safe and, in fact, may provide a benefit for the environment. What we are saying, however, is that the perception wars are being lost by industry, one battle after another, and there is little on the near-term horizon likely to replicate General Pickett's Charge in favor of industry. Perception is far more important than reality for this issue. With that said, let's look at the perceptions and how we believe this is likely to play out.

Industry fully believes that it has science on its side, but science may not be enough. We have long used the analogy of nuclear energy and confess we are pleased to see *The Economist* in a recent article pick up on the theme. We believe that the science of nuclear energy is safe and warranted, but the public reluctance following Three Mile Island and Chernobyl effectively killed it in this country, despite successes in France and elsewhere.

"Show me"

Consensus opinion on ag-biotechnology has been steadfastly bullish for quite some time now. We recall feeling very much in the minority when we participated in a Wall Street Transcript roundtable last fall with other sell-side major chemical analysts who felt optimistic with respect to ag-biotech. Nary a discouraging word was spoken with respect to ag-biotech. Although we were not born in St. Louis (Newark, NJ, actually), one can safely say that we are from Missouri on this issue – "Show me." The mere fact that an industry leader such as DuPont steadfastly refuses to publicly forecast when ag-biotech will yield a return on investment does trouble us.

It's snowballing

Although it has been nine months since we first printed our concerns about ag-biotech going the way of nuclear energy in this country, we count ourselves among those surprised at how rapidly this forecast appears to be playing out. Not a day goes by lately where concerns and/or rebuttals are not in the press somewhere in the world. Domestic concerns regarding ag-biotechnology are clearly on the rise, with the Monarch butterfly but one example of negative press causing a rethink of the future. For the most part, though, it has not yet gotten the attention of the ordinary U.S. citizen, but when it does – look out.

The GMO Debate

European and U.S. labeling laws in sharp contrast

In the United States, the GMO debate would have occurred earlier this decade had the FDA opened up the question for debate. Rather, in 1992, the FDA unilaterally decided (in its opinion) that as long as a GM food is no more toxic, allergenic, or any less "substantially equivalent" than its standard counterpart, it need not be labeled to show the process that created it. That decision is in sharp contrast to European labeling laws, introduced in 1997, which require that any food must be recorded as a GM one if it contains residues of engineered DNA or protein. While the science behind GMOs may say one thing, we believe the lack of public discourse back then should lead to more heightened scrutiny when it does come.

Disconnect between perception and reality

According to a recent IFIC poll, almost half of Americans think their foods are 100% free of biotechnology, when in reality, almost 60% of processed food already contains GM products, including virtually all candy, chocolate bars, ice cream, cookies, salad dressing, etc. This disconnect between perception and reality cannot be good for industry when the forum for debate reopens.

Inquiring minds want to know

We think that the U.S. public will ask to be heard before all is said and done. As many as 25% of all Americans have at one time or another paid more to get organically grown food rather than the status quo. What are they likely to say about GMOs when they know the whole story? As each day passes, we believe that more and more people will take another look at what they are eating. Reading the label on food products is *de rigueur*, but GMO products are not labeled as such. Anecdotally, we attended a Fourth of July picnic and observed a lovely homemade potato salad with a note attached saying, "This salad contains peanut oil." Surprisingly, although very few people have negative reactions to peanut oil, it appeared to us that this lovely potato salad was discriminated against when it came time to select a side dish to the beloved hot dog. We also know that it probably contained GMO products, but nothing was labeled as such. Do U.S. consumers have a right to know?

Possible downside for all scenarios

We found it interesting that DuPont, Monsanto, Novartis, and others, including opponents of ag-biotech, recently gathered to construct future scenarios on how it will all play out. In one particular game-playing session, each of three potential stories or outcomes led to possible downside from today's bull case being promulgated by the leading suppliers. One case suggested mass acceptance of ag-biotech leading to the commoditization of key biotechnology products, turning them into low-margin commodities. Admittedly, this story has the happiest interim period for producers and investors. A second scenario drags the chaos theory into the mix, with a seemingly minor factor serving to kick off a massive push for new regulations that would stifle biotechnology applications. A third story was characterized as "thanks but no thanks," as consumers decide that biotechnology derived foods are not as appealing as all-organic or current offerings. "Thanks, but no thanks" appears to be in the lead in Europe and could easily become the thought process in the United States as well.

Europe Versus the United States of America***And in the far corner...***

As we read press reports from U.S. Agriculture Secretary Dan Glickman equating European reluctance to ag-biotechnology to the trade disputes with beef and, more so, bananas, we are disheartened. Taking others' cultural backgrounds and concerns into account would seem to be a prerequisite for the job, given the vast amount of exporting done by the United States, but perhaps political considerations are all that matters. Also weighing in is Stuart Eizenstat, Under Secretary of State, saying "The Europeans have an absolute fear, unfounded by any scientific basis, in accepting these (GMO) products." U.S. trade representative Charlene Barshefsky suggested that the United States is considering launching a case against the EU in the World Trade Organization because of delays in its GM approval system, to which European Commission officials said any challenge would fail. We agree.

**Europeans crying wolf?
No!**

European consumers have recently been through the mad cow disease crisis, the French AIDS-tainted blood crisis, the Dutch pig plague crisis, the Belgian chicken dioxin crisis, the Belgian *Coca-Cola* crisis, etc. Therefore, hearing from unsophisticated Americans that their fears are unfounded may not be the best way of proceeding. (*Author's note: As patriotic Americans, the America bashing in this report is wholly unintentional.*) We point to the American Council of Science and Health commenting on the Belgian *Coca-Cola* scandal as follows, "The disease symptoms may be real, but their cause is psychological, not physical . . . no sign of a toxic agent was found." We're sure the Belgian school children are reassured.

The European concerns are very real. In the past month, a senior manager at a European-based chemical giant expressed serious reservations to us about the benignness of GMOs and said that given a choice, he would select non-GMOs any day. By the way, the company he works for *is* actively involved in ag-biotechnology. We also conducted a highly unscientific survey of Europeans we know to gauge their reaction to GMOs. Universally, it was thumbs down.

Europeans disapprove

One survey, conducted in 1995, found that 49% of Swedes, 70% of Germans and 78% of Austrians would not buy a bioengineered food product. In contrast, an average of 70% of Japanese, U.S. and Canadian consumers *would* buy such products. The survey highlighted below shows the European disapprovals in a more stark fashion. Consider that this survey was done well before the current hoopla surrounding GMOs reared its head in Europe.

Figure 1: Attitudes to Genetically Modified Foodstuffs

	Dänemark %	Frankreich %	Groß-britannien %	Italien %	Niederlande %	Schweden %	Durchschnitt %
(Number interviewed)	(580)	(1005)	(1003)	(1002)	(750)	(500)	(4840)
Support it to great extent	3	4	6	14	3	3	6
Support it slightly	13	11	25	23	16	9	16
Neither support nor oppose it	14	18	16	14	22	8	15
Oppose it slightly	20	33	24	11	25	16	22
(Oppose it to a great extent)	45	34	26	32	24	60	37
Don't know	6	2	2	6	11	4	5

Source: Mori/Greenpeace, Deutsche Banc Alex. Brown research.

No shirts, no shoes, no label – no service

But the dispute also revolves around the European desire to label the products as modified. The arguments against labeling seem self-serving at best. What about the time-honored tradition of the consumers right-to-know? On April 2, 1997, the E.C. voted 407 to two to ban the importation of unlabeled genetically engineered U.S. corn crops. The undisclosed transgenic origin of much of the soy lethicin in chocolate led the Swiss government to confiscate and destroy 500 tonnes of locally produced chocolate around Easter 1997.

"We are not ready for GMOs"

So, will broader education make the difference? We note that Monsanto has spent more than \$1.5 million to persuade English consumers of the rectitude of their position, but, alas, to no avail. Monsanto is little match for Prince

Charles, an anti-GMO advocate, when it comes to sensitivity for the English people's desires. More broadly speaking, it appears that the food companies, retailers, grain processors, and Governments are sending a signal to the seed producers that "we are not ready for GMOs." The situation in Europe is probably more advanced than people are aware. Even flavor ingredient suppliers are losing business when they choose to tell the truth that they do not know if their products contain some minor quantity of GMO in lethicin, for example, rather than to boldly say it is GMO free.

***The proof is in the
genetically modified
pudding***

Several European countries have said that the E.U. shouldn't authorize any GMOs "... until it is demonstrated that there is no adverse effect on the environment and human health." Is this reasonable to ask for? Yes, but whose definition of demonstration do we use? The producers will already argue that they have made their case. But the Governments and the public, on the other hand, are reluctant to agree just yet. The European Commission has also said, "We want the procedure to include more consultation with the public and our scientific committees." We believe that the Greek government will ask its E.U. partners to sign a declaration saying that they will reject any new applications until such time as the revised law is up and running, which could be as late as 2002.

Figure 2: European actions against genetically modified crops**February 1997**

Austria and Luxembourg ban sale, and France prohibits commercial growing of Novartis' maize genetically modified to be resistant to herbicide and European corn borer.

March 1997

Italy and Spain ban commercial growing of Novartis' modified maize.

April 1997

European Parliament calls on European Commission (EC) to suspend market consent for Novartis' modified maize.

September 1997

Italy withdraws its ban on cultivation of Novartis' genetically modified maize.

November 1997

France announces a moratorium on commercial cultivation of all genetically modified crops with the exception of Novartis' maize.

December 1997

France announces a moratorium on commercial use of all genetically modified crops containing antibiotic resistance marker genes with the exception of Novartis' maize.

July 1998

France declares a moratorium on growing of genetically modified crops (beet and rape) that have wild relatives in Europe.

September 1998

France's highest administrative court suspends authorization to grow Novartis' modified maize.

All of Austria's main supermarket chains take genetically modified products off their shelves.

October 1998

Greece bans import of genetically modified rapeseed.

The U.K. announces a *de facto* three-year moratorium on genetically engineered insect-resistant plants.

November 1998

France bans import and sale of two varieties of genetically modified rapeseed.

February 1999

European Parliament calls for labeling of genetically modified crops and foods. It also calls for a ban on antibiotic resistance marker genes in modified crops.

March 1999

U.K. retailer Sainsbury's forms a consortium of major European retailers – including Marks & Spencer (U.K.), Carrefour (France), and Superquinn (Ireland) – that will jointly buy products that are not genetically modified.

Greece announces that all applications for experimental plantings of genetically modified crops presently pending will be rejected.

April 1999

Nestlé UK and Unilever UK, national subsidiaries of the two largest food producers in the world, announce that they will phase out use of genetically modified ingredients in their products.

Tesco, the biggest retailer in the U.K., announces its own brands will be free of genetically modified ingredients.

May 1999

EC suspends approval processes for all new genetically modified crops.

Source: C&EN, Deutsche Banc Alex. Brown research.

One argument for the differences in attitudes between the United States and Europe is the trust Americans put in their regulatory agencies such as the FDA. Forgive us for snickering, but perhaps we have seen one too many exposés on lax FDA supervision of the food chain. No, we ascribe part of the difference in the litigious, or even media-obsessed, society Americans live in, where one false step by a food producer is likely to land them on the front page and in bankruptcy, do not pass go, do not collect \$200. The food companies must be proactive stewards of the public trust.

Asia warming up?

To date, the concerns have been raised mostly in Europe with Asians reportedly less concerned. It was recently reported by Charles Martin, a vice president at Monsanto, that "... Asia is warming up to genetically modified organisms in agriculture and will step up usage of such technology over the next few years." We would hope that Monsanto is bullish on prospects in Asia. Furthermore, Martin is quoted as saying, "...Monsanto is in favor of labeling. The most practical way of labeling is to label those foods that are free of GMOs." Tim Ramey recently said that once testing for GMOs becomes standard, the market for U.S. GMO-free soybeans and corn will explode.

Latin America a mixed bag

Latin America has been more of a mixed bag. Argentina has been a producer of GMO crops, while Brazil has been holding back. However, the Brazilian Agriculture Ministry recently approved GMO soybeans, only to have a Federal Court block it pending an environmental impact study. Given the premiums for non-GMOs (discussed below), this may turn out to be a blessing in disguise.

Premiums for Non-GMOs

Deutsche Banc Alex. Brown's food and seed analyst, Tim Ramey, was among those to identify a bifurcated market developing with a PREMIUM being placed on non-GMO crops rather than the hoped for premium on GMO crops. In the fall of 1998, Consolidated Grain & Barge offered a 2 cents/bu. premium for non-GMO corn, while others offered a 5 cents/bu. premium. Archer Daniels Midland (NYSE-ADM-15 1/16) is paying an 18 cents/bu. premium for non-GMO soybeans this year, with DuPont's STS the prime beneficiary (and it is widely believed that DuPont is the payer of that premium). Martin Andreas, senior vice president for ADM, feels the program offers farmers a way to avoid the recent problems revolving around genetically modified crops, saying, "He's got a home for his product, he's got a good premium price and he's taken out of the political difficulties surrounding the GMO issue. I think it's a pretty decent program for the farmer." But what about for the ag-biotech industry? The *U.K. Farmer's Weekly* recently had an estimate from seed dealers suggesting that up to 20% of GM corn seed was returned to distributors by farmers this year.

DuPont offers premium for non-GMO soybeans

DuPont's program of offering growers a 25 cents/bu. premium for conventionally bred STS soybeans for its wholly owned PTI subsidiary suggests a growing realization that non-GMO is the product of choice. While 130,000 acres were said to be in the program in 1998, many more acres are in the program this year.

According to AGStock USA:

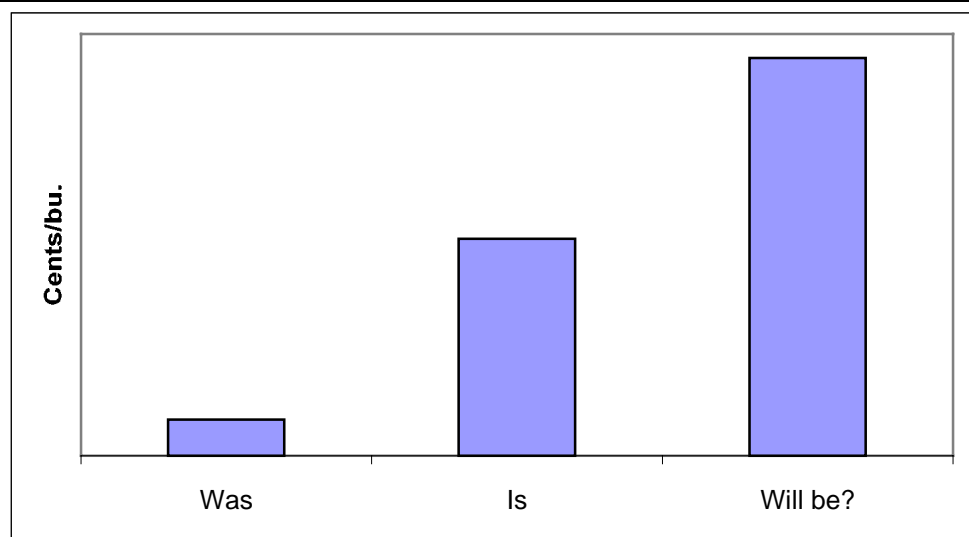
"DuPont recognized an opportunity. Its STS soybeans were bred without GMO technologies to resist Synchrony herbicide. And the use of Synchrony on the field would kill any GMO rogue beans. 'We felt we could safely assure there were no GMOs in the beans,' says Mike Ricciuto, spokesperson for DuPont Ag Enterprise. 'This year, we'll expand our program to other soybean processors besides PTI.'

He acknowledges that the program puts the company in an awkward position. DuPont is a proponent of biotechnology. It markets a genetically modified high oleic soybean produced through biotechnology and plans to offer many more biotechnology products. "We support GMOs and believe their safety for consumers is assured. However, if the market offers a premium for a non-GMO product, why not satisfy that customer?" asks Ricciuto.

While we understand the need to satisfy customer demand, could that customer demand be telling you something?

DuPont appears to be having its life sciences cake and eating it too (no pun intended.) With DuPont actively promoting that STS soybeans are non-GMO, with tacit acknowledgement that this is a good thing, it appears somewhat self-defeating for the longer-term prospects. It does play right into Nestle (OTC-NSRGY-92 3/16), Unilever (NYSE-UN-74) and others (see appendix) who have already banned the use of GMO products in their food formulations. This, of course, is helping to create a premium for non-GM products (or, if you'd like, a discount for GM products). Is DuPont a proponent of ag-biotechnology? The answer is yes, but you need to look beyond the surface of the STS soybean marketing.

Figure 2: Premium for Non-GMO soybeans



Source: Deutsche Banc Alex. Brown research.

“Against the Grain”

Corporate profits take the lead

We recently read the 1998 book *Against the Grain; Biotechnology and the Corporate Takeover of Your Food*. We confess that our predisposition was that this book would be anti-capitalist and a slipshod defense for the radical position against GMO foods. We were amused by various mistakes, including referencing Bob Shapiro as the *ex-CEO* of Monsanto, and the two references of *American-based AgrEvo*. But, as a whole, the facts were more often right than wrong. While capitalism is taken to task on occasion, the book did in fact strive to be balanced in many aspects and merely sought to present a countering argument for the rapid and widespread introduction of biotechnology foods. The authors, Dr. Marc Lappe and Britt Bailey, contend that the quest for corporate profits has ridden roughshod over questions of public health, freedom of choice and ecological stability.

Bt toxin overuse

The overuse of the Bt toxin is suggested to lead in short order to the development of resistant strains, thereby making it useless to organic farmers. A 1997 study in the *Proceedings of the National Academy of Sciences* reported that 1.5 out of 1,000 moth larvae now carry the gene to overcome Bt toxin, which is 1,000 times more than had been predicated. Mycogen scientists are said to have estimated that the effective shelf life of their Bt technologies is no more than about ten years.

Little public input

Another complaint is that the radical transformation of the ag economy has been planned and is being executed behind closed academic and corporate doors with very little public input. "Any mistake made early in the genetic engineering game may reverberate for decades . . . Damage and disease may become evident only after several generations when such gene insertions create subtle plant morphological or biochemical changes that put the plant in harm's way for injury by a novel pathogen or environmental stressor."

Chronic ingestion of GM foods hazardous to your health?

With the rush to market and little assessments done on the health effects, the authors are also concerned about the possible health hazards from ingesting genetically modified food crops. They claim that no studies have been performed to measure the impact of chronic ingestion of finished products that contain increasing amounts of transgenic crops. And what about infants drinking soy formula?

Figure 3: Unresolved Questions From *Against the Grain*

- Are there hidden risks in moving genes across species in plants?
- Have we missed possible secondary effects of gene transfer across whole crop lineages in assessing the safety of genetically engineered crops?
- Is there a loss of opportunity for genuine progress in choosing certain genes for crop development and not others?
- Are novel ecological risks created from developing monocultures of genetically engineered crops?
- Are special problems of disease resistance and vulnerability posed by transgenic crop types?
- Will new patterns of pesticide use create health risks to farm workers or consumers?

Source: Against the Grain; Biotechnology and the Corporate Takeover of Your Food, Deutsche Banc Alex. Brown research.

Even no-till is called into question with the increase in level of herbicide usage that might result in a "situation analogous to the antibiotic debacle now facing modern science: overuse leads to resistant pests." Roundup Ready crops were even cited for providing a lower yield with respect to conventional soybeans according to a 1996 Arkansas study (Source: L.O.

Ashlock *et al.*, Cooperative Extension Service, Soybean Update, University of Arkansas, February 1997.)

GMOs have been around, but with disappointing results

GMO crops have been around since at least the early 1970s, with strawberries targeted to resist frost, but the results were said to be disappointing and the attempt abandoned. Later, a methionine-rich gene from a Brazilian nut was introduced into soybeans to increase protein, but was found to contain the allergenic properties of the Brazilian nut. While this has often been cited as an example of the failure of science, we actually think that it is an example of science working to identify the problem, by Pioneer Hi-Bred in this case, before bringing it onto the market.

In 1994, Calgene's attempt to market the Flavr-Savr tomato and the DNAP Endless Summer tomato failed when both products were removed from the market after less-than-enthusiastic consumer acceptance. In 1997, Monsanto, the new owner of Calgene, re-introduced the Flavr-Savr under a different name, McGregor, without reference to the genetically engineered origin. This, of course, is counter to the previous claim of inviting labeling for GMO products. Sticking within the tomato family, Seminis introduced a reduced solids tomato that did not fare well in the marketplace.

The authors contend that the conventional wisdom of the necessity of GMO to feed the world 20 years from now could be turned aside through high precision agriculture. They state that 40% of the world's current food production comes from just 17% of the land that is irrigated. They further object to the U.S. EPA decision to increase the glyphosate residue tolerances from six ppm to 20 ppm for raw soybeans and from 100 ppm to 200 ppm for soybean hay. We confess that while we are not experts, we are hard-pressed to think of many instances when the EPA actually raised tolerance levels for herbicides. A further bug-a-boo for them is that the initial biotechnology crops are those selected for greater earnings power and herbicide resistance rather than in making greater nutritional value.

Ready for Roundup Ready?

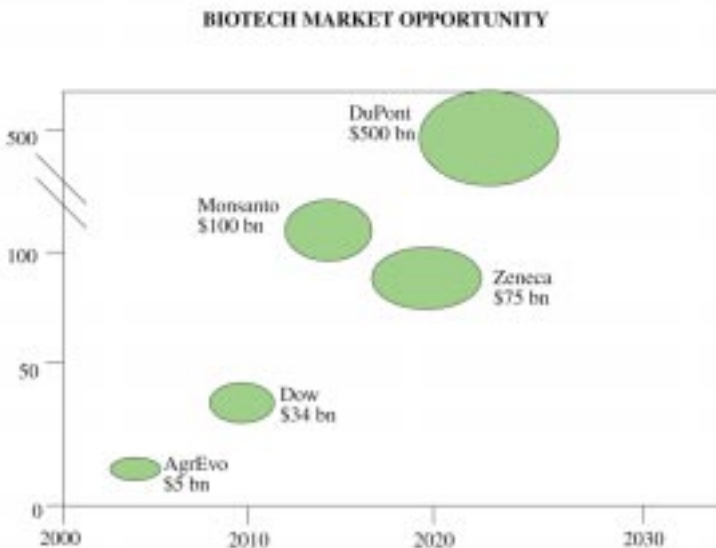
The chapter titled, "Are we ready for Roundup Ready Foods?" starts with a quote from Hendrik Verfaillie, senior vice president of Monsanto, "...The biggest mistake that anyone can make is moving slowly, because the game is going to be over before you start." This gets back to their contention that the quest for corporate profits has ridden roughshod over questions of public health, freedom of choice and ecological stability. However, the book appeared to be even handed in its discussions with farmers as to their opinions on Roundup Ready, with a Mr. Zanone singing its praises and another, a Mr. Taylor, being dead set against.

The Ag-Biotechnology Revolution

There is little doubt that the prospects for an ag-biotechnology revolution flooding the corporate coffers for the companies of interest to us are real. We believe that Zeneca has done the best public analysis of what this potential is by company as shown in the exhibit below. The vast discrepancies in the order of magnitude in the market sizes where the major players can participate is due mainly to the expertise segmented by input traits and output traits. We believe the near-term gains are flowing more so to input traits, but the long-term home runs will be focused on output traits (or

functional foods), where DuPont maintains a commanding presence. Our position, however, is that right now the likelihood of functional foods becoming dysfunctional is higher than ever before.

Figure 4: **Biotech Market Opportunity**



Source: Zeneca, Deutsche Banc Alex. Brown research.

The need for speed

The Life Sciences banner has been associated with speed. The speed to market and the speed of acquisition have been critical. Unfortunately, the food companies, retailers, etc. are not willing or able to move at the Life Science speed and have no incentive to do so.

Biotech used for more than just food

Within DuPont and others there is more to biotechnology than just ag-biotechnology used for crops to feed humans and/or animals. We suspect that GMO cotton and other fiber crops, which will not enter the food chain, will not draw the attention or focus that corn, soybeans, etc. have. There is also the "dream" to produce chemicals and plastics from plants (e.g., use fermentable corn sugar to make biotech chemicals to make a new type of polyester). We believe little of what was mentioned previously in this report ought to impact the progress made on this front. We doubt that Greenpeace or others will actively object to this part of the biotech future. We, on the other hand, will actively track the progress made and the potential economic benefits to be derived from this part of the science platform.

Will more normal multiples be the new norm?

When all of the above is taken into consideration, we believe the prudent observer will come away with a longer time horizon for consumer acceptance of ag-biotechnology. Experience has also shown, in the Flavr-Savr tomato story, that fantastic profits may not be realized. This lengthens the payback period for the massive investments already made and decreases the ROI. The huge prices paid for seed companies depend on the value added and rapid rate of technology development that GMOs promise. It also strips out some of the former hype (no, hype is too strong a word) – the former

enthusiasm for investing in ag-biotech today that led to very impressive multiples being paid.

We believe reason will prevail in the end and more normal multiples will be the new norm. For these and other reasons, we are maintaining our Market Perform rating on DuPont, and continue to believe that the growing negative sentiment toward GMOs creates problems for Pioneer, Monsanto, Delta & Pine Land, Novartis and, to a smaller extent, Dow.

This Page Intentionally Left Blank

APPENDIX 1

GMOs – What are they saying in corn country?

Subject: [Industry Update](#)

Analyst: [TIMOTHY RAMEY, 212/469-5221](#)

Associate: [Marla J. Wimmer, 212/469-5077](#) / [Rachel M Rocker, 212/469-5799](#)

Industry: [Food, Wine & Agribusiness](#)

Date: [June 3, 1999](#)

Since we published our “GMOs Are Dead” report, we have been getting a lot of questions about the alleged two-tiered market in which traditional hybrids sell at a premium to genetically modified ones. Is the food industry actually paying a premium for GMO-free corn and soybeans or is it all just hearsay?

In search on the answer, we pull out our little black book and hit the phones. We talked to quite a few Midwest grain merchandisers and myriad other corn and soybean industry experts. Here is what we learned:

A specialty market for non-GMO soybeans has existed since at least 1997. Demand for this product is coming mainly out of the EU and, to a lesser extent, from Japan and the U.S.. Right now, premiums on contract-grown non-GMO beans are hovering around \$0.20/bu. In the 1998 crop season, premiums averaged slightly higher. European processors tended to source most of their “GMO-free” soybeans out of Brazil in 1997, when labeling of GMO products first became mandatory in the EU. However, as illegally imported Roundup Ready beans have tainted the Brazilian crop, the U.S. market for GMO-free product has grown.

The premium market for non-GMO corn is comparatively unproven. The only evidence of premium priced non-GMO corn we were able to locate was a February article in “AGStock USA,” that reported Consolidated Grain & Barge had paid premiums of up to \$0.05 per bushel for GMO-free corn this past fall, and anecdotal evidence from the USDA that another specialty grain elevator had paid premiums of up to \$0.08 per bushel. Still, there is clearly much talk among Midwest grain elevators of a larger premium market in the future. Many grain merchandisers today are offering GMO-free corn as a specialty product, whereas very few defined it as a specialty category one year ago. Major processors such as ADM and Staley have refused to buy GMO corn varieties that are not approved in Europe – which account for an estimated 7% of U.S. acreage this year. Genetically modified corn, in aggregate, accounts for 30%-40% of 1999 U.S. plantings.

ADM has partnered with DuPont and will supply DuPont’s Synchrony Treated Soybeans (STS) to customers seeking identity preserved GMO-free beans. ADM is contracting to purchase farmers’ STS beans at a \$0.18-\$0.20/bu. Premium (DuPont may be footing the bill). DuPont’s Protein Technologies International will also contract for identity preserved STS beans. Last year DuPont ran a similar STS program with Continental Grain as its partner and paid growers a \$0.25/bu. premium.

The EU is our largest export market for whole soybeans. Half of our soybean crop is exported each year, with 15% of exports going to Europe. 50% to 60% of processed food in the United States and Europe contains soya.

A \$0.20/bu. premium makes growing non-GMO soybeans about as profitable as growing *Roundup Ready*, in prime corn-belt territory. We estimate *Roundup Ready* soybeans save farmers in Iowa and Illinois about \$10/acre in growing costs. A \$0.20/bu. premium in prime Iowa and Illinois territory –

where soybeans yield about 50 bu./acre – also translates into \$10/acre. Suppose the premium for GMO-free soybeans were to rise to \$0.25/bu.? Farmers who planted *Roundup Ready* could end up regretting it.

We have gotten mixed messages from grain merchandisers as to their ability to charge sufficient premium to end-users of non-GMO product to absorb all the added costs of premiums to farmers and special handling for non-GMO product. Some claim to be passing on all of their added costs. Others were hesitant to say that they could make as much profit on GMO-free soybeans as they could on generic product. We suspect that the underlying issue is price competition from Brazil, where merchandisers don't have to segregate product and, therefore, have less overhead. However, *Roundup Ready* soybeans should receive regulatory approval in Brazil any day now, which would eliminate Brazil's competitive advantage and make the GMO-free market more attractive for U.S. grain merchandisers.

According to the American Soybean Association (ASA), the EU has not established testing guidelines or a tolerance level for GMO crops. The *de facto* threshold figure is therefore zero, a standard no U.S. product can live up to. Even though tests for GMOs exist, the ASA would argue that they can't be used without some kind of accepted standards. This makes it difficult for U.S. whole soybeans to be accepted in the EU as GMO-free.

If this situation does, in fact, exist, we cannot see it continuing for much longer. Negative consumer sentiment toward GMO's is mounting in the EU (and beyond), and major EU food manufacturers have promised consumers GMO-free product. If EU soybean imports are not being GMO tested – though such tests do exist – it would seem that the only way EU food processors can "prove" untested soya products are 100% non-GMO is to buy Brazilian soybeans, which are free from GMOs in theory though not in practice. This option will cease to exist when *Roundup Ready* soybeans receive final regulatory approval in Brazil – an event that is expected to occur any day now.

We can't accept that conscientious opponents of GMOs would prefer untested non-GMO product over product which has been subjected to tests with a very low tolerance for GMOs. We believe that once testing for GMOs becomes food industry standard, the market for U.S. GMO-free soybeans and corn will explode.

Companies mentioned:

DuPont (NYSE-DD-\$66 15/16-Market Perform)

Monsanto (NYSE-MTC-\$41 3/8)

Pioneer Hi-Bred Int'l, Inc. (NYSE-PHB-\$37 3/8-Market Underperform)

Stocks priced as of June 3, 1999.

APPENDIX 2

May 21, 1999

GMOs Are Dead

- We see a two-tier grain market developing with GMO (genetically modified organisms) corn and soybeans at a discount to non-GMO. Very bad news for farmers.
- If a two-tier market takes hold, we see price premiums for high-value-added GMO seeds collapsing. Very bad news for seed companies.
- If GMO seeds become a liability rather than a driver of growth, we see growth rates and valuations coming down. Very bad news for seed stocks.
- Despite the fact that the science and logic in support of GMOs is very strong, GMOs are being demonized by their opponents. What food manufacturer will “take a bullet” for GMO corn in the face of such controversy?
- We are reducing our rating on Pioneer Hi-Bred to SELL from HOLD. And we’re calling into question the valuations of the other seed-related companies. Is this a sector one should be invested in?

Timothy S. Ramey, CFA
212.469.5221
tim.ramey@db.com

Marla J. Wimmer
212.469.5077
marla.wimmer@db.com

Rachel M. Rocker
212.469.5799
rachel.rocker@db.com

A MAJOR CHANGE IN THE MARKET'S VIEW OF GMOs

Perhaps we don't yet fully realize it, but genetically modified organisms (GMOs) have just crossed the line. Thirty days ago, the investment community accorded only positive attributes, such as innovation, productivity and progress, to GMO corn and soybeans. The success of GMOs was, to a great degree, the basis for the strong growth rates and the huge public and private market valuations accorded this sector. Today, the term GMO has become a liability. We predict that GMOs, once perceived as the driver of the bull case for this sector, will now be perceived as a pariah. We are reducing our rating on Pioneer Hi-Bred to SELL from HOLD, and we would broadly recommend a sale of the seed sector.

Biotech crops are ubiquitous, yet few consumers realize it. Here are a few examples of where you can find GMO products: soft drinks (GMO corn to make corn syrup), salad (GMO tomato, soy oil in dressing), hamburgers (engineered yeast in bun, rennet, soy isolates in cheese, delayed-softening tomato in ketchup, soybeans in mayonnaise, genetically altered tomato).

The perception has been getting worse...

What happened? On May 6, 1999, we published a warning piece entitled "The Trouble with GMOs." We spelled out the positive case for transgenic seed and outlined what we believed to be the illogical, but persistent, arguments advanced by GMOs' opponents.

We recently returned from an important industry conference (Deutsche Bank was the only *Street* presence), where we heard from representatives of the major seed companies (Monsanto, Stauffer Biotech, Demegen, and Seminis), major food processors such as Campbell Soup and Nestle, the corn growers' associations, and representatives of the biotech community.

What to do when GMO's trade at a discount?

The message is a scary one — increasingly, GMOs are, or in our opinion, becoming a liability to farmers. A two-tier market for grain may develop, where the GMO "improved" grains will trade at a discount to non-GMO product. This is, in fact, already happening with European processors paying premiums of up to \$1 per bushel for "non-GMO" product. Archer Daniels Midland recently announced that it would pay an \$0.18-per-bushel premium for DuPont's STS soybeans — a non-GMO variety.

Regarding the move, ADM said: *"Our goal is to contract acreage reasonably near our Decatur processing plants. Under this program, the farmer has a definite home for his high-yielding bean crop; he's locked in a premium of 18 cents per bushel over the Decatur price, and he stays out of the political fray that surrounds the genetically modified issue."*

For ADM, the program assures the company a supply of non-genetic beans. When it buys beans on the open market, it can't be sure they'll all be unmodified.

Dozens of Biotech Products have been Approved Around the World

United States	34+ USDA, EPA, FDA
Japan	20+ MAFF, MHW
Canada	30+ AG Canada, Health Canada
EU	9
Argentina	3
Australia	1
Mexico	3
Brazil	1
South Africa	1

Who has the liability if GMO pollen corrupts a non-GMO crop?

Take that to the next logical step. If you plant GMO corn, and your neighbor plants non-GMO hybrids and pollen from your GMO crop drifts into his field, making his grain test positive for GMOs (even though he planted non-GMO hybrids), will your neighbor sue you? Will you be suing the seed company? Imagine the legal mess that could ensue if GMO = value destruction.

Don't expect the food manufacturers and retailers to "take a bullet for GMOs."

"Don't expect *us* to take a bullet for *your* GMO products." So said a representative of Nestle, the world's largest food company at the aforementioned conference. We predict the food processors will line up quickly in the "No-GMO" camp. The message is clear: GMO foodstuffs such as tomatoes, tomato paste, cooking oil, fructose-based sweeteners, etc. are just ingredients. They have costs and benefits. GMOs just became too costly.

In order for GMO crops to be viable they must be sold at a price that is as good, or better than, non-GMO options. While the dollar cost is the same (as long as the market views these products as "substantially equivalent"), it cannot be argued that there is not a real PR cost. Already, Unilever and Nestle have tried to duck the controversy by publicly insisting that their products will be made without GMOs. Expect virtually all others to follow, because the anti-GMO crowd will threaten to stigmatize, demonize and boycott those that don't fall into line.

Archer Daniels Midland has taken a different approach. It has said it won't buy any GMOs that are not approved by the EU. That has caused customers of Pioneer Hi-Bred to worry over its *Liberty-Link* corn and customers of Monsanto to reject *Roundup Ready* corn, two newer, thus unapproved, GMO classes. Monsanto's response to farmers? Keep the *Roundup Ready* seed and the company will provide free *Roundup* as an inducement to stay.

What is the logical outcome?

What if "value-added" is really value detracted?

In the past five years, we — and virtually all analysts of the sector — have focused intently on the value-added that biotech would provide. Bt corn was introduced in the 1996 crop and was a smashing success. *Roundup Ready* soybeans hit the market at about the same time and the estimates are that close to 50% of the soybean acreage, and 40% of the corn acreage, will be planted to these two GMO innovations. The best Bt-corn hybrids sell for \$120 per bag, while the non-Bt analog might sell for \$75. Similarly, *Roundup Ready* soybeans sell at a \$5-\$7-per-unit premium to the non-transformed varieties. The pickup in yield, primarily, and the cost savings on inputs drove these advanced products to premium prices and wide acceptance.

**The value chain
topples...**

The way that we learned to visualize the value chain for biotech traits may be turned upside down. In theory (and in practice for the past several years), the seed companies can sell their genetically modified seed at a premium to the growers who can sell their crops at a premium to the market, because there is a premium value to the end user. The resistance by food companies and grain processors alike has nullified the idea that end users will pay a premium for genetically modified crops. This lack of value will have to work itself back down the value chain in the form of reduced-to-zero premiums.

Roundup Ready soybeans were adopted much faster than envisioned in the original time frame. But with the negative psychology surrounding it, the market may be in for a negative surprise. Expectations for total GMO acreage for 1999 is about 84 million acres, up from just 14 million acres in 1997. If our concerns about GMOs are valid, the expectation of more than 140 million acres in 2001 is clearly at risk.

Percent of Acreage Planted with Biotech Crops*United States*

	1996	1997	1998
Corn	13%	26%	50%
Cotton	9%	16%	39%
Soybeans	7%	23%	48%

Canada

	1996	1997	1998
Canola	5%	35%	47%
Corn	0%	3%	38%
Soybeans	0%	0%	6%

Argentina

	1996	1997	1998
RR Soybeans	2%	23%	50%

**An earnings hit from
the GMO-seed-
premium collapsing**

But all of those positive attributes are meaningless if the crops produced with GMO seeds are discounted in price. The best Bt hybrids would show a 5% improvement in yield versus non-Bt hybrids. On the current price of corn that would be negated by a \$0.10-per-bushel discount. If GMOs trade to a discount, the price premium for the seed may collapse, and they could actually trade at a discount to traditional varieties and hybrids. That would be an earnings nightmare for Pioneer Hi-Bred and, we would guess, for Monsanto as well.

**Two hits: earnings
and valuation**

We likely would see an earnings hit in the two companies mentioned above, but we foresee a valuation hit for virtually all companies connected with GMOs. The huge prices paid for seed companies in both the private market and the public arena depend on the value-added and rapid rate of technology development that GMOs promise. Would DuPont complete the acquisition of Pioneer for \$40 per share (five times sales) if GMOs were a liability? We have strong concerns. Why hasn't Monsanto's purchase of Delta & Pine Land closed? Will it? Monsanto trades at more than 45 times the \$0.96 calendar 1999 EPS estimate carried by *First Call*. Can that be sustained? How much of the 35% earnings growth that the Street envisions for Monsanto's Y2K earnings are dependent on GMOs remaining viable?

Seed Company Valuations

	Rating		Price 5/20/99	EPS 1999E	1999 P/E	EPS 2000E	2000 P/E	Price/ Sales
AgriBiotech, Inc	BUY	ABTX	\$6.63	(\$0.07)	NM	NA	NA	0.6x
Delta & Pine Land*	NR	DLP	\$33.50	\$0.69	48.6x	\$1.07	31.3x	6.8x
DuPont	HOLD	DD	\$69.06	\$2.62	26.4x	\$2.96	23.3x	3.0x
Monsanto*	NR	MTC	\$44.50	\$0.96	46.4x	\$1.29	34.5x	3.1x
Pioneer Hi-Bred	SELL	PHB	\$37.19	\$1.15	32.3x	\$1.25	29.8x	4.7x

* EPS estimates are *First Call*

Other concerns that came out of the conference

The real focus of the conference was "output traits," those genetic traits that are engineered to make crops more valuable. Output traits focus on adding more of something good or suppressing something bad. Very few output genes are in the marketplace yet, but output traits are thought to be the next big wave of product development. Key traits under development are improving the starch content of corn, raising oil content (which is in the market) of corn, improving the amino-acid content, etc.

Will anyone pay for product improvements?

By definition, output traits create value, not on the farm but to the end-user. Thus, for output traits to be financially successful, the food manufacturer, swine feeder, poultry feeder, or grain processor must be willing to pay a premium price for the enhanced value of the grain. There was significant concern raised over this mechanism. Some participants reported that their customers expected product improvement to occur with no increase in prices paid. The example of Wendy's \$0.99 hamburger was raised. The company has been at that price point for more than a decade, and can stay there only through tight control on supplier costs and further improvements in productivity.

We noted earlier that DuPont won some new business selling STS soybeans because of their "non-GMO" status. But before one ascribes a positive for DuPont's good fortune due to the demand for STS product, consider the negative outlook for output traits. Frank Mitsch, Deutsche Bank's Major Chemicals analyst is concerned about the uncertainty of when and if ag-biotech will pay off for DuPont.

Production Estimates, Planted Acres

	1997	1998	1999	Growth Projection	Premiums per Bushel
White	550	725	775	6%-7%	\$0.35-\$0.60
Waxy	420	500	525		\$0.20-\$0.45
hard endo./ food grade	600- 1,000	800- 1,200	800- 1,200	Very Low	\$0.02-\$0.25
high oil	700	900	1250	High >25%	\$0.15-\$0.30
nutrient dense	140	140	240	High >50%	\$0.10-\$0.20
high amylose	30-40	30-40	40-50	Potentially High >10%	\$1.20-\$1.90

1999 Value Enhanced Corn Projections

	Open Market	Contract	On Farm
White	50%	50%	0%
Waxy	25%	65%	10%
hard endo./food grade	70%	30%	0%
high oil	10%	40%	50%
nutrient dense	0%	25%	75%
high amylose	0%	100%	0%

Quick and cheap tests for GMOs are on the way.

Strategic Diagnostics, Inc. presented its technology for quick and easy testing of grains for GMO content. Test tools are now available for farmers, grain buyers and regulators to quickly analyze the GMO status of grain. The company noted that no standards exist in the various regulatory areas, so the possibility exists that a load of corn could leave port in the United States as non-GMO, only to be turned away by a grain buyer in Europe who is using a different threshold to determine GMO content. These test kits will take away the argument that it is impossible to know the GMO status of grain.

We were disturbed by a presentation made by the Executive director of the U.S. Grains Council, an export-oriented industry advocate. He, too, focused on "value-enhanced" product, and one of his definitions of "value-enhanced" was non-GMO. What more evidence of a two-tier market do we need? GMOs are good science but bad politics...

GMOs are good science but bad politics...

Are GMOs safe, good for the environment, and necessary to support the inevitable growth in the world's population? Yes, but the same arguments can be made for advancing nuclear power. Despite the support of the scientific community, it is unlikely that we will add any new nuclear power plants any time soon.

From a 25-year perspective, the world will be hard-pressed to feed itself without GMOs. The supply of arable land will continue to shrink and the only way to keep up with growing food demands will be by increasing productivity. Without GMOs, it won't be possible. Without GMOs, it's clear that we will use a lot more agricultural chemicals.

However, from a three-year perspective, GMOs are a policy liability. GMOs increase productivity in a world that is currently drowning in too much grain. As we discussed in great detail in our above-mentioned May 6 warning piece, a fair bit of the European resistance to GMOs stems from Europeans' desire to keep their agriculture as people-intensive as it currently is. They view GMOs as a threat to their agrarian lifestyle.

In the United States, low crop prices have farmers asking Congress for \$6 billion-\$8 billion in aid, just a day after the House of Representatives approved a \$574-million farm bailout. We believe that GMOs, with their better yields, will only further depress prices this year. Thus, from a government perspective, one needs to take a very long view to see the positives.

ADDENDUM – WHY A SELL ON PHB AND A BUY ON ABTX?

We believe the downside to Pioneer is limited, but is it worth holding the stock given the risk?

We have downgraded Pioneer to SELL from HOLD. The GMO problem is not going away anytime soon, which calls into question the future earnings potential of Pioneer. Our SELL rating on Pioneer does not imply that we believe there is major downside to the stock — DuPont has announced its intention to acquire Pioneer at \$40 per share. We are not saying that the deal will not close — DuPont may already be locked into the deal. But the GMO problem does add an additional element of risk. Remember that the Monsanto/Delta & Pineland acquisition has yet to close and it was announced on May 11, 1998. A news story that coincidentally hit the wires just after we downgraded Pioneer informed that the closing of the Delta & Pineland deal has been pushed back to December 31, 1999, from June 30, 1999. If the deal closes then, it will be 19 months after it was originally announced. Is it worth keeping your money tied up in a stock for the extra 7% return when there is this much risk involved? We don't think so. Hence, our SELL rating on PHB.

ABTX has little GMO risk

AgroBiotech produces forage and turfgrass seed. By definition, turfgrass seed, whether it's GMO or not, will face less scrutiny than row crops. Unlike row crops, turfgrass is neither used directly or indirectly in human food. The concerns, if any, about turfgrass will relate to environmental issues rather than health and safety issues. In the end, we think it likely that consumers will still prefer to have grass varieties that can grow with fewer chemicals; thus, GMO turfgrass should face little resistance.

The other half of ABTX's sales is forage seed. Forage is typically grown and used within the same vicinity and is not a product that the United States exports. Forage is also not directly consumed by humans. So, again, most of the concerns about GMOs should not impact forage sales.

We are getting more bearish on the seed sector in general as a result of the looming problems with GMOs. This is less a problem for AgriBioTech than for the other seed companies. Seed-company valuations have been pushed higher, based on expectations for sales of higher-priced, higher-margin, value-added seed (mainly GMOs). There is a built-in assumption in many seed-company valuations that the seed companies will be able to sell increasing numbers of GMOs at significant premiums. We are calling that assumption into question.

Among the major seed companies, AgriBioTech is the furthest from commercialization of GMO products, and clearly no premium for valued-added seed is built into its current valuation. GMOs are four-to-five years out for ABTX. Since most of the trouble with GMOs is political, and near-term in nature, the clouds may have cleared on the GMO story by the time ABTX has introduced genetically modified seeds.

So, while we have turned more bearish on the row-crop-seed sector, we are not changing our investment opinion, or our \$15 price target, on AgriBioTech.

Companies mentioned:

AgriBioTech (OTC-ABTX-\$6 5/8-Buy)

Archer Daniels Midland (NYSE-ADM-\$15 3/4-Hold)

ConAgra (NYSE-CAG-\$26 5/8-Buy)

Corn Products International (NYSE-CPO-\$29 7/8-Buy)

Delta & Pine Land (NYSE-DLP-\$33 ½)
DuPont (NYSE-DD-\$69 1/16-Hold)
Monsanto (NYSE-MTC-\$44 1/2)
Pioneer Hi-Bred (NYSE-PHB-\$37 3/16-SELL)
Wendy's International (NYSE-WEN-\$26 9/16)

Stocks priced May 20, 1999.

ABTC, ADM, CAG, DOW, DD, PHB, and WEN stocks are optionable.

WEN has a convertible issue outstanding.

Deutsche Bank Securities Inc. maintains a net primary market in the common stock of ABTC.

The author of Appendix 2 has a long position in the common shares of ABTX and CAG.

Deutsche Bank Securities Inc. U.S. Equity Sales Offices, North America

Deutsche Bank Securities
950 East Paces Ferry Road
Suite 3320
Atlanta, GA 30326
(404) 812-6800

BT Alex. Brown Inc.
1 South Street
Baltimore, MD 21202
(410) 727-1700

Deutsche Bank Securities
1 Federal Street, 21st Floor
Boston, MA 02110
(617) 988-8600

Deutsche Bank Securities
130 Liberty Street
New York, NY 10006
(212) 250-2500

Deutsche Bank Securities
31 West 52nd Street
New York, NY 10019
(212) 469-5000

Deutsche Bank Securities
101 California Street, 46th Floor
San Francisco, CA 94111
(415) 544-2800

Deutsche Bank Securities
222 Bay Street, Suite 1100
P.O. Box 64
Toronto-Dominion Centre
Toronto, Ontario M5K 1E1
(416) 682-800

Deutsche Bank Securities Inc U.S. Equity Sales Offices, International

Deutsche Bank Securities
Taususanlage 12
3rd Floor
Frankfurt, Germany 60325
(49) 69 9103 7597

Deutsche Bank Securities
7, Rue Du Rhone, 1st Floor
Geneva, Switzerland, 1204
011-41-22-319-4000

Deutsche Bank Securities
6 Bishopsgate
London EC2N 4DA
United Kingdom
(44171) 545-4900

Deutsche Bank Securities
3, Avenue de Friedland
75008 Paris, France
(331)5375-2446

Deutsche Bank Securities
Level 19, Grosvenor Place
225 George Street
Sydney, NSW 2000 Australia
(612) 9 258-1232

Deutsche Bank Securities
21-1 Toranomom 3-Chome
Minato-ku, Tokyo 105
(813) 5401-6990

Deutsche Bank Securities
Bahnhofquai 9- 11
CH-8023 Zurich, Switzerland
(411) 224-7979



Information herein is believed to be reliable and has been obtained from sources believed to be reliable, but its accuracy and completeness cannot be guaranteed. Opinions, estimates, and projections constitute our judgement and are subject to change without notice. This publication is provided to you for information purposes only and is not intended as an offer or solicitation for the sale of any financial instrument. Deutsche Bank Securities Inc., BT Alex. Brown Inc., and their affiliates worldwide, may hold a position or act as market maker in the financial instruments of any issuer discussed herein or act as advisor or lender to such issuer. Transaction should be executed through a Deutsche Bank entity in the client's home jurisdiction unless otherwise permitted by law. Deutsche Bank Securities Inc., and BT Alex. Brown Inc., are members of [NYSE and NASD]. Copyright 1999 Deutsche Bank Securities Inc., and BT Alex. Brown Inc. In the U.S. this report may be distributed either by Deutsche Bank Securities Inc., or BT Alex. Brown Inc. Interested parties are advised to contact the U.S. entity they currently deal with, or the U.S. entity that has distributed this report to them.
