The debate about agricultural biotechnology has been reflected to varying degrees in state legislatures across the country. In the last several years, state legislators have introduced an increasing number of bills and resolutions highlighting a number of issues related to the technology. Many states are attempting to balance a diverse set of interests. On the one hand, there is an interest in capturing the perceived economic value of agricultural biotechnology for their agricultural producers. On the other hand, states are also addressing some of the conflicts that often arise when a new technology is introduced, including impacts on other economic interests and public concerns. Outside of statehouses, local public officials and voters have also become more active on the topic.


State Legislative and Local Activities related to Agricultural Biotechnology Continue to Grow in 2003-2004

View the Legislation Tracker database.

Introduction

State legislators introduced a larger number of bills and resolutions pertaining to the topic of agricultural biotechnology in the 2003-2004 legislative session than in the previous 2001-2002 session. In total, 170 pieces of such legislation were introduced in 2003 and 2004. This represents a seven percent increase over the 2001-2002 legislative session and indicates that agricultural biotechnology issues continue to generate keen interest among state legislators and their constituents. As in 2001-2002, the issues addressed during the 2003-2004 session by state legislatures covered a wide range of topics associated with both the opportunities and challenges presented by agricultural biotechnology.

Compared to the prior state legislative session, more legislation was introduced in 2003-2004 that addressed issues raised by the "next generation" products of biotechnology such as genetically modified fish, pharmaceutical-producing food crops or animals, and new GM crops such as wheat and coffee. There was also an increase in the number of new bills aimed at stimulating regional economic growth through various technology incentives. The significant attention paid in the 2001-2002 session to the issue of increasing penalties for vandals who engage in crop destruction was virtually absent in 2003-2004, reflecting the completion of legislation on that topic by the interested states.

Not all states addressed all of the issues; instead, many issues appeared to be a product of regional concerns. For example, the potential commercialization of GM wheat was an issue that generated particular interest in the Northern Plains States. Other states, such as those in the Northeast, appeared most interested in mechanisms for differentiating local production in order to capture organic or other "non-GM" markets.

While the legislation introduced and discussed in this fact sheet may help gauge the level of public attention to agricultural biotechnology policy issues, only a few of the bills presented here were discussed in hearings or were afforded other additional legislative consideration, and fewer still passed the state legislatures and were signed into law. In the 2003-2004 session, 37 bills or resolutions passed; a decrease from the 45 pieces of legislation passed in 2001-2002. Of the 37 pieces of
legislation that passed in 2003-2004, a majority (21) fell into the category of "supporting biotechnology." The term "passed" is used in this fact sheet to describe both bills that were enacted into law and resolutions that were adopted by the relevant legislative bodies.

This fact sheet captures all legislation that addressed agricultural biotechnology issues introduced in state legislatures in 2003-2004. In a number of cases, cited legislation may include agricultural biotechnology as one of several high technology industries. Consistent with past surveys, this fact sheet has classified state legislation into seven categories: (1) penalties for crop destruction; (2) regulation of GM crops or animals; (3) labeling; (4) liability and agricultural contracts; (5) studies or task forces; (6) support of biotechnology; and (7) moratoria. Where possible, comparisons will be made to the 2001-2002 legislative session to indicate trends.

States

Activity is on the rise overall but varies widely among states

With the U.S. Congress continuing to see relatively little activity on biotechnology-focused legislation*, state legislatures continue to be the main venue for issues pertaining to agricultural biotechnology. In the 2003-2004 legislative session, 170 pieces of legislation (156 bills and 14 resolutions) were introduced in 35 different states (See Figure 1). This represents a seven percent increase over the amount of legislation introduced in 39 different state legislatures in 2001-2002.

* In the 108th Congress (2003-2004), 13 bills and 2 resolutions specifically addressing agricultural biotechnology were introduced. Of those, only two non-binding resolutions passed (H.Res 252 and S.Res. 154). Both expressed support for Administration efforts to bring a complaint against the European Union for its restrictions on GM crops. This fact sheet does not analyze Congressional activity, although specific bills and resolutions are included in the accompanying Legislative Tracker.

Due to the fact that many state legislatures meet only during odd numbered years or only consider budgetary issues in even number years, the majority (128) of these 170 bills and resolutions were introduced in 2003. In the second year of this legislative session, 42 new pieces of legislation were introduced.

Figure 1: Legislation Related to Agricultural Biotechnology introduced in 2003-2004

Note: The numbers inside each state indicate the number of pieces of legislation introduced during the 2003-2004 legislative session within that state.

Most active states
As it did in the 2001-2002 session (with 23 bills and resolutions totaling 19% of all legislation that year), Hawaii’s legislature introduced far more legislation in 2003-2004 (31 bills and 7 resolutions) than any other statehouse. The Iowa legislature was the source of the second most legislation (16 bills) introduced in any one statehouse, followed by Michigan (13 bills).

The numbers suggest that Hawaiian legislators are paying even more attention to agricultural biotechnology than they have in the past; these 38 bills and resolutions (24 in 2003 and 14 in 2004) represent a 65% increase over the amount of legislation introduced in that state in 2001-2002.

Hawaii’s fertile land and year-round growing season provide an attractive economic and geographic climate for companies engaged in the development, production, and commercialization of new crops. These advantages, in combination with its remote location, are in large part why more applications for field trials of GM crops include Hawaii as a site than any other state or territory in the nation. Three Hawaiian bills introduced in 2003-2004 (SB1436, SB1640, and SB2122) specifically address the issue of field trials and seek to make information regarding field trials of GM crops in the state available to the public.

Other legislation introduced in Hawaii includes bills and resolutions that protect Hawaiian rights to natural resources discovered through bioprospecting (SR35, SCR55, HCR196, HB2034 and SB642), create or fund research and education initiatives in support of biotechnology (HB154, HCR185, SB534, SB1433 and SB663), address liability for cross-pollinated crops (SB601, HB1033, and HB1281), or prohibit the introduction of GM Kona coffee (HB69).

The broad scope of issues addressed by Hawaiian legislation implies the state legislature is grappling with both the potential benefits and potential concerns about agricultural biotechnology. Even after the collapse of the state’s once thriving sugar industry, agriculture continues to contribute significantly to the state’s economic well-being, and a number of legislators believe that biotechnology will be a significant asset to the state’s agricultural economy. For example, a virus-resistant papaya has been developed through genetic modification techniques and has rescued Hawaii’s papaya production. However, some legislators are concerned about potential environmental impacts that could threaten native biodiversity and biological resources – particularly in light of the state’s ongoing struggle against an onslaught of non-native, invasive species that have caused severe economic and environmental damage.

As was the case in most states, few pieces of legislation passed in Hawaii. HCR185 (recommending school reform to promote disciplines such as biotechnology) and SB837 (establishing a task force to review the state’s workforce development plans in various sectors including biotechnology) are the only two such pieces of legislation.

Iowa’s legislators introduced the second largest number of bills in the 2003-2004 session. In total, 16 bills were introduced of which four passed. Seven bills (HF453, SF223, HF358, HF692, HF471, SF367, and HF611) sought to remove existing restrictions on life science companies from either owning land for agricultural production or obtaining funding from existing economic development funds. Five bills (HSB107, HSB286, HF677, HF681, and HF683) were introduced which sought to create tax incentives or new funds and loan programs for biotech companies pursuing the development of value-added agricultural products.

Other issues addressed by the Iowa legislature relate to agricultural contracts. Four bills (HF512, HF515, HF518, and HF521) were introduced which address a variety of components of seed contract law including assessing technology fees for GM seed, protecting farmers’ rights to save seed, prohibiting sale of seed modified to make second generation plants infertile, and requiring GM seed be labeled.

Legislation introduced in Michigan, the state with the third highest number of introduced bills, dealt primarily with transgenic fish and other aquatic species and their release into the environment. In all, Michigan legislators introduced 13 bills in the 2003-2004 session and all but two pertained to transgenic aquaculture specifically. One of the bills considered by the Michigan legislature makes the unauthorized release of transgenic aquaculture into the wild a criminal act (SB227). Finally, legislators introduced SB228 which makes such animals subject to all state quarantine laws.

A shift in the predominant issues
One trend in 2003-2004 was the increase in legislation addressing novel applications of agricultural biotechnology – applications of the technology beyond the corn, cotton, and soybeans modified for herbicide or insect resistance that have dominated the business in the U.S. The next generation of agricultural biotechnology products is likely to include new food or feed crops (possibly alfalfa, wheat, coffee, or rice); transgenic fish or other aquatic organisms; transgenic crops and livestock genetically modified to produce human therapeutics or industrial compounds; and other genetically modified animals. Each of these categories of next-generation products was the subject of some state legislative attention in 2003-2004.

New food crops

In the 2003-2004 session, 12 bills were introduced in state legislatures addressing future GM applications to food and feed crops. While still a small percent of the total legislation, it represents an increase over the 2001-2002 session during which only five bills addressing new food and feed crops were introduced.

Genetically modified wheat – a food crop under development that has not been commercialized – was the topic of 11 bills and resolutions introduced during the 2003-2004 session. Not surprisingly, these bills were introduced in wheat producing states including many of the Northern Plains States and Kansas. These 11 pieces of legislation represent an increase in legislative activity from the 2001-2002 legislative session, in which only two bills were introduced with specific reference to GM wheat.

Kona coffee is another GM food crop in development that was addressed in legislation. A bill (HB99) introduced in Hawaii would prohibit planting GM Kona coffee until an assessment is conducted on the implications its introduction could have on the environment and on conventional plantations, and until the state's department of agriculture develops a permitting process for the crop.

Transgenic fish

Some transgenic fish and aquaculture products are in reasonably advanced stages of research and development and one product (the GloFish) has been commercialized as a pet. It is interesting, therefore, to note that transgenic fish and aquaculture were subjects of a significant amount of legislation in the 2003-2004 session. In total, 16 bills on the topic were introduced in 2003-2004 compared with five such bills in 2001-2002. Michigan introduced 9 bills (SB226, SB227, SB229, SB1420, SB1421, SB1422, SB1423, SB1424, SB1425) which either limit the introduction of transgenic aquaculture species under the Natural Resources and Environmental Act or codify the unauthorized release as criminal.

California introduced two relevant bills (SB53 and SB245) in the past session. SB53 would have prohibited the importation of any live transgenic aquatic animals pending the FDA's authorization of such animals as safe for human consumption. California legislators passed SB245 which makes it illegal to spawn, cultivate, or incubate any transgenic fish in the waters of the Pacific over which the state has jurisdiction.

Also, Alaskan legislators introduced SB281 which requires GM fish, their progeny, and products derived from either to be labeled.

Pharma-plants and transgenic animals for pharma- or other uses

Thirteen bills introduced this session address the issue of using transgenic plants and animals for pharmaceutical production. One other bill addresses transgenic animals more generally. By comparison, during the 2001-2002 session, no bills that were introduced specifically addressed these topics.

Four bills (SF223, HF358, SF367, and HF453) introduced in the Iowa legislature seek to remove land use restrictions on life science corporations raising transgenic animals for non-food uses such as pharmaceutical production. The last of these (HF453) passed.

Eight bills were introduced on the subject of pharmaceutical production in crops and animals. Hawaiian legislators introduced two bills on the topic (HB2053 and HB2055); the first prohibits the modification of animals and plants commonly used for human food production from being used to produce pharmaceuticals while the second prohibits open air planting of crops modified to produce...
pharmaceuticals or industrial compounds. Texas legislators introduced HB3387 which prohibits animals or plants commonly used as food or feed from being modified to produce pharmaceuticals or industrial compounds. Massachusetts legislators introduced HB3012 which prohibits open air planning of any crops genetically modified to produce pharmaceuticals. Iowa's legislature considered three bills (HF611, HF692, and HF471) which makes business capital available to companies developing and producing therapeutics in plants or animals. Finally, one bill introduced in North Carolina (SB943) would create a biomanufacturing training center to encourage development of agricultural biotechnology industries involved in pharmaceutical production. Of these eight bills, only Iowa HF692 passed.

The Michigan legislature introduced and passed SB228 which amends the Animal Industry Act to explicitly include transgenic animal species under the quarantine provisions of that act.

Cross-cutting categories

For the purposes of comparing between sessions, all legislation introduced in both 2003-2004 and 2001-2002 is categorized into seven primary groups in this fact sheet: regulating biotech crops and animals, labeling, liability and agricultural contracts, studies or task forces, supporting the technology, implementing moratoria, or criminalizing crop destruction (See Figure 2).

![Figure 2: State Legislation Introduced in 2003-2004 Compared with 2001-2002 by Category](http://pewagbiotech.org/resources/factsheets/legislation/factsheet2004.php)

Note: 132 pieces of legislation were introduced in 35 states in 2003-2004; 158 were introduced in 39 states in 2001-2002. The numbers in brackets reflect the pieces of legislation introduced in a given categorical issue. Percentages reflect how that categorical issue relates to the total number of bills and resolutions introduced during each specified session. Click the pie section of interest for a description of the category and the associated trend.

**Legislation supporting research and the technology is on the rise**

Nationally, there was a large increase in the number of bills introduced that support biotechnology, particularly as a tool for economic development in 2003-2004. In 2003 46 bills and three resolutions were introduced in support of biotechnology; during 2004, the second year of this legislative session, another nine pieces of legislation were introduced. This brings the 2003-2004 total to 58 bills and resolutions originating in 20 state legislatures and contributing 34% of the total, a sizable increase over the eight pieces of legislation (five percent of the total) introduced in 2001-2002 (See Figure 1). Bills supporting biotechnology fall into the following categories:

- Implement research and education initiatives (13 pieces of legislation were introduced in seven states, seven passed)
- Facilitate economic and business development for the state by providing loans and other aid (22 pieces of legislation were introduced in ten states, six passed)
- Offer tax incentives to biotechnology corporations and businesses (23 pieces of legislation were introduced in ten states, eight passed)
Most bills or resolutions that offer tax incentives and facilitate economic and business development appear to represent a broad-based effort on the part of state legislators to increase local industry and jobs, and often these bills encompass four or five eligible industries, which in these instances also include agricultural biotechnology.

**Labeling legislation declines**

In 2003-2004, less than half as many bills on the subject of labeling were introduced (only 9 bills in 2003 and three in 2004 or seven percent of the total legislation introduced during the two year session) compared to the 2001-2002 legislative session (25 bills or 16 percent of the total legislation introduced). Despite this decline, three of the bills passed in 2003-2004 (24% of those introduced), compared to one in 2001-2002 (4% of those introduced.)

**Concerns about crop-destruction appear to be addressed**

The 2003-2004 session also saw a dramatic reduction in the number of bills introduced which address the intentional and criminal destruction of GM crops and research sites. Legislation addressing this issue comprised 28 percent (45 bills) of all bills in 2001-2002 and ultimately 24 different states passed 31 pieces of such legislation during that session. Conversely, no legislation was introduced on this topic in 2003-2004 (See Figure 2). This shift most likely reflects the fact that the states with the greatest concerns about such vandalism have already enacted laws addressing this issue in the last legislative session.

**Regional trends reflect economic interests**

Regional issues continue to dominate the kinds of legislation introduced by state lawmakers in 2003-2004.

**The Northern Plains**

Legislation introduced in the Northern Plains States during the 2003-2004 session illustrates the regional nature of many agricultural biotechnology bills and resolutions. When Monsanto announced that it was close to commercializing a Round-up Ready variety of Hard Red Spring wheat, state legislatures in key wheat growing states of the Northern Plains leapt into the debate. Some wheat growers and legislators in the region supported both the technology in general and the commercialization of this product specifically. However, other wheat growers and legislators in the region felt that market signals from key foreign and domestic buyers indicated that U.S. wheat, as a whole, could be rejected by the market and result in a collapse in the U.S. wheat market. The ensuing debate set off a flurry of activity in some state legislatures, which subsided only after Monsanto announced that it was shelving current plans to move Round-up Ready wheat to the market.

While the legislative activity related to the topic of wheat has declined in the Northern Plains States since Monsanto’s announcement, ten of the 12 biotech bills and resolutions that were introduced in the Montana, North Dakota, and South Dakota state legislatures during 2003-2004 made specific reference to wheat. The Montana legislature alone introduced six wheat bills and resolutions followed by North Dakota (3) and South Dakota (1). This represents an increase in legislative activity from the 2001-2002 legislative session, in which only two bills from these three states specifically addressed GM wheat.

Of the ten pieces of legislation on wheat introduced in this region, only one (Montana SJ18) passed. This joint resolution highlights the legislature’s sense of the state’s economic dependence on wheat and cautions against introducing modified varieties without ensuring they do not compromise access to existing domestic and international markets. Other wheat legislation includes three bills introduced in Montana (SB266 and HB522) and North Dakota (SB2304) which address liability for cross-pollination of conventional crops with GM varieties. Montana SB266 specifically requires technology providers to post a $10 million bond with the state prior to introducing biotech varieties of wheat to partially cover such damages. Legislators in Montana (SB30) and South Dakota (SB214) introduced legislation commissioning studies of the potential market impact of introducing GM wheat, and of the means of dealing with any unintended cross-pollination. Other 2003 legislation included bills in Montana (HB409 and SB440) and North Dakota (HB1026 and SB2408) which would create certification and registration programs for both seed sellers and grain producers who wish to distribute or grow genetically modified...
varieties of wheat.

The Northeast

Legislators in many Northeastern states have introduced agricultural biotechnology legislation in response to a different set of priorities than those of the Northern Plains States. Given the significance of organic agriculture to the Northeast as well as the relatively small volume of commodity crop production, the transgenic products commercially available to growers today appear to offer fewer advantages to farmers in the Northeast when compared to other parts of the country.

A number of bills which aim to distinguish northeastern states' agricultural producers from those using GM varieties were introduced in the 2003-2004 session. Legislators in Connecticut (SB1045), Maine (HP1149), New York (SB176 and SB1834), Rhode Island (SB264), and Vermont (SB163, HB351, and HB777) introduced a total of eight bills that encourage or require the labeling of GM food or seed, or that articulate criteria for labeling foods as "GM-free." These eight bills introduced in Northeastern state legislatures account for more than half of all state legislation introduced nationwide in 2003-2004 on the subject of labeling. Notably, two of these passed. Maine HP1149 criminalizes misbranding products as GM-free and Vermont HB777 made Vermont the first state in the U.S. to mandate that GM seed be labeled as such.

In Maine (HP893), Massachusetts (HB3012), New York (AB998 and SB1397), and Vermont (SB162), legislators introduced five bills imposing moratoria on GM crops or technologies (45 percent of the nationwide total in this category) – the bill in Maine (HP893) was amended during deliberations to include a study of the risks and benefits of GM technologies for Maine agriculture. None of the above proposed moratoria passed. New York (AB1911) and Vermont (SB164 and HB350) legislators introduced but failed to pass three bills ensuring a farmer the right to sue fellow producers or technology providers for market losses resulting from unintentional cross fertilization of their crops with GM varieties. The New York bill also protects farmers from suits filed by technology providers and seed companies for failing to pay technology fees if the GM varieties are unintentionally present.

Legislation introduced in the Northeast addressed other issues as well. Legislators in Connecticut, Maine, and Massachusetts also introduced various bills and resolutions supporting research and education initiatives, tax credits, or business development programs for life science companies involved in agricultural biotechnology. Three such bills passed (Connecticut HB6624, Maine HP1148, and Massachusetts HB4328). In addition, legislators in Massachusetts introduced a bill (HB4536) to establish a task force to study a variety of issues related to agricultural biotechnology including possible benefits the technology may provide to the state.

Biotech bills become law

The 2003-2004 legislative session saw 37 bills and resolutions (22% of the total introduced) on agricultural biotechnology pass. This was down slightly from the 2001-2002 legislative session during which 45 pieces of legislation passed (28% of the total introduced).

At least one piece of legislation from each issue category included in the 2003 database was passed (See Figure 3). Given the number of bills introduced in support of biotechnology, it is not surprising to find that this topic also had the largest proportion of legislation pass. In total, 21 bills supporting biotechnology passed in the 2003-2004 legislative session (19 in 2003 and 2 in 2004), accounting for 58% of the legislation which passed.

In addition, seven bills regulating biotech crops or animals (AR HB2615, MI SB226, MI SB227, MI SB228, MI SB229, PA HB2387, and SD HB1237) were passed, three bills addressing labeling (ME HP1149, MN SF2843, and VT HB777) were passed, one bill on the subject of liability and agricultural contracts (IL HB264) was passed, four pieces of legislation in the study/task force category (HI SB37, IL SR89, MT SJ8, and MN SMR62) were passed, and one bill imposing a moratorium (CA SB245) was passed.
It is especially interesting to note that 67% of the legislation passed in 2001-2002 addressed the intentional and criminal destruction of GM crops and research sites – a topic not addressed by any bill in 2003-2004. Consequently, while fewer pieces of legislation were passed in the 2003-2004 session than were passed in 2001-2002, more than two times as many pieces of legislation passed collectively in the other topic areas in 2003-2004 than in 2001-2002.

One example of a topic where the success of bills dropped dramatically was in liability legislation. While the volume of legislation introduced which related to liability and agricultural contracts remained nearly constant between the two sessions (28 pieces of legislation in 2001-2002 and 29 pieces of legislation in 2003-2004), the percent that passed fell dramatically from 32% in 2001-2002 to 3% in 2003-2004.

**Activity at the local level**

While not new, biotechnology-related activities at the local level received an increasing amount of attention in 2003-2004. Some of these activities involve policies adopted by local officials, although most appear to involve local voter initiatives.

One of the most well publicized efforts concerned a ballot initiative in Mendocino County. In March 2004, 53% of voting Mendocino county residents supported an initiative making Mendocino a "GM-free" county – the first time such a voter initiative passed in the U.S.

Subsequent ballot initiatives in four other California counties met mixed outcomes in November 2004. In Marin County, 62% of voting residents supported the ban on planting GM crops. In San Luis Obispo and Butte Counties, however, similar initiatives were rejected by 59% and 60% of the voters, respectively. In Humboldt County, where the advocates who originally introduced the initiative withdrew their support for it citing technical legal problems with its text, voters rejected the measure with 65% of the vote.

Other local edicts – both for and against the technology – have been issued by elected county boards. In August of 2004, California's Trinity County Board of Supervisors voted three to one to make the region's plant and animal agriculture GM free. Likewise, the city Board of Supervisors in Arcata voted four to zero to prohibit the sale, distribution, or cultivation of GMOs in November 2004. Conversely, in...
December of 2004 in Fresno County – located in one of California’s major agricultural regions – the Board of Supervisors passed a resolution explicitly supporting the use of biotech crops in the county.

These local efforts have not been limited to the west coast. For example, current estimates indicate that in recent years over 79 different towns in Vermont have supported non-binding town hall resolutions calling for moratoria on GM organisms.

In 2004, two states passed legislation that would assert state preeminence over agricultural biotechnology and prevent local initiatives from countering state authorities. South Dakota enacted HB1237 which authorizes the patent holder of any GM organism authorized for release by the federal government to use it in that state. Pennsylvania enacted HB2387 which establishes that no ordinance or local rule can prohibit or regulate the sale of seeds in a manner that contradicts state regulations.

**Preview of 2005-2006 state activities**

The 2005 legislative calendar has already ended in many states and activities to date suggest that agricultural biotechnology issues will continue to be of interest, particularly with respect to concerns about marketing, economics, and liability – issues that have historically fallen outside the scope of federal regulations.

Litigation in Hawaii challenging the confidentiality of information submitted by companies in permit applications, particularly the location of field trials, is likely to continue to stimulate interest in that state's legislature. Hawaii's state legislature is on track to remain one of the most active on the agricultural biotechnology issue. Already in early 2005, over 30 relevant pieces have been introduced in that state.

Next generation applications of agricultural biotechnology, such as new food and feed crops, fish, animals, or pharmaceutical production are likely to continue to receive significant attention from state legislatures. Already in 2005, a number of bills addressing next generation biotech products have been introduced including in Alaska (one bill on transgenic fish), California (one bill banning transgenic and cloned pet sales), Oregon (one bill on pharmacrops), and Hawaii (seven bills addressing pharmacrops).

Local ballot initiatives and policies, and state efforts to restrain them, are also likely to dominate the 2005-2006 legislative session. As in 2003-2004, some of these activities are likely to be supportive of the technology while others may attempt to restrict its use. In February, 2005, for example, the board of supervisors in California's King County passed a resolution explicitly affirming the right of farmers and ranchers to employ the widest range of technologies and referring to biotechnology as "a bright light in the future of agriculture." The boards of supervisors of four other neighboring counties (Solano, Sutter, Tulare, and Kern Counties) passed similarly supportive resolutions in 2005. On the other hand, ordinances as well as non-binding resolutions banning the technology are already on county and town ballots in Sonoma County, California; Brooklin, Maine; and Manchester, Vermont.

At the same time, some state legislatures, concerned about potential conflicts between local, state, and federal law, are moving to rein in local initiatives and policies on agricultural biotechnology. As noted above, two states enacted legislation in 2003-2004 to assert state preemption over local initiatives banning agricultural biotechnology. In 2005 to date, as many as nine other state legislatures have already introduced such legislation; six of these have been enacted into law (Georgia SB87, Idaho HB401, Indiana HB1302, Iowa HF642, Kansas HB2341, and North Dakota SB2277).

**Summary**

Agricultural biotechnology represents many things to many people. To some, the technology offers the promise of more efficient, and environmentally benign, agriculture and greater economic development. Others suggest it presents challenges in ensuring access to export markets for existing commodity crops, cultivating organic and non-GM crops, and raises questions about food safety, consumer information, and environmental stewardship. These and other issues are, not surprisingly, finding their way into the debates of state legislatures and onto the ballots through voter initiatives. Most of these concerns pertain to issues such as liability, economic development, market access and other areas.
related to agricultural biotechnology that are not generally the focus of federal regulatory efforts. But some state legislation has also addressed labeling and the safety of new products such as transgenic fish – areas much more commonly handled by federal agencies. Whether such state and local restrictions could create a patchwork of inconsistent regulatory requirements remains to be seen.