

# Biotech crops SOW debate



*More than half the U.S. soybean crop is genetically modified.*

**L**egislators in 15 states are grappling with bills that put them in the middle of a growing controversy over genetically modified crops. State legislators are weighing issues that affect farmers, markets, consumers and the environment. In doing so, they are sorting through a barrage of information on the crops' benefits and perceived risks.

The California Legislature, for example, this session considered measures involving consumer notices, food labeling, serving biotech foods in schools and vandalism of biotech facilities.

Across the nation, more than two dozen bills related to biotechnology were introduced in 15 states in 2000, and a ballot initiative was introduced in Colorado. The majority of the bills focused on mandatory food labeling for

products containing genetically modified ingredients. Other proposals promoted the restriction of usage of biotech foods in schools, required state seed registration or certification for biotech crops and sought to impose moratoriums on growing biotech crops pending more research. As of early April, bills in three out of 14 states addressing these issues had either failed or been withdrawn, and the others were still under debate, many resting in legislative agriculture committees.

Legislators are facing constituents who press them to react quickly, all the while struggling to reach a delicate balance between responding to farming constituencies, whose fields are planted with genetically modified crops, and consumers, who may be fearful of the perceived impact.

*States are getting in the middle of a debate among farmers, business, foreign nations, environmentalists and consumer advocates over the value and perceived risks of genetically modified crops.*

**BY LAURA WILLIAMS**

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Among the legislators dealing with the issue is California Sen. Jim Costa, chair of the Senate Committee on Agriculture and Water, who plans to propose legislation calling for a task force to examine biotech issues. The bill, Costa said, will be part of a strategy to bring California agencies together with nationally recognized scientists and

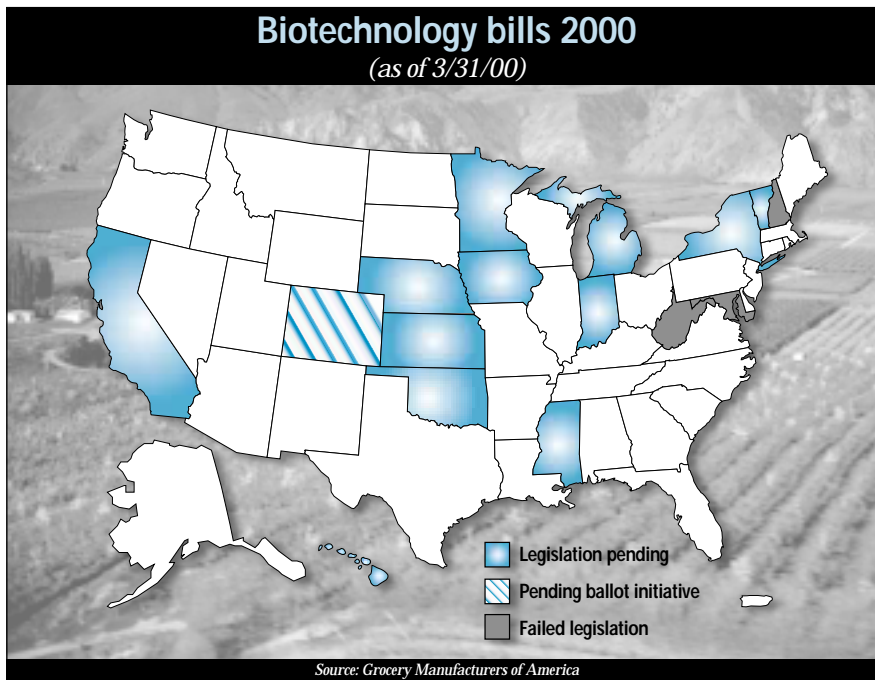
ing, and Nebraska has passed a resolution calling for a study.

Minnesota this session had seven bills on biotech issues. Minnesota Department of Agriculture Commissioner Gene Hugoson said that as of mid-April, none of the bills had received a formal hearing. The Senate held an informal hearing on biotech topics to

farmers have embraced the use of genetically modified crops as yet another tool to help them keep costs down and yields high.

As knowledge of genetics advances, scientists are developing crops with added nutritional value (vitamin-added or high-oil varieties) or enhanced medical properties (for example, built-in vaccines for hepatitis). These potential advancements have great promise for developing countries, where burgeoning populations and lack of arable land often create a tight food supply and widespread health problems.

Despite the apparent advantages of crop biotechnology, consumer and environmental groups have growing concerns. Prompted by alarm in Europe over the safety of biotech foods, U.S. consumers are taking a closer look at the products on their grocery shelves. Concerns range from the loss of plant biodiversity to the lack of any long-term testing of biotech foods — the effects of these new plants in the environment simply aren't known. Some worry that genetically modified plants could kill beneficial insects, leave toxins in the soil or transfer genes over to weeds to create "super weeds."



federal agencies. It also directs the state Department of Food and Agriculture to work with scientists, federal agencies such as the U.S. Environmental Protection Agency on these issues, and the California Trade and Commerce Agency to engage in discussions with the federal government and U.S. trading partners to address trade issues.

"As someone who was born and raised in an agricultural family, I am acutely aware that biotechnology offers enormous opportunities," Costa said. "It also raises questions to be answered. As state public policy-makers, we have a responsibility to take a serious look at the entire issue — both advantages and drawbacks — so that science determines where we go next."

Other states also are considering task forces or commissions to study the issue. Vermont has a study bill pend-

allow proponents and opponents a forum to lay out the issues.

Hugoson's department does not want to discourage biotechnology, he said, because it offers exciting possibilities, such as potential cures for a number of diseases. At the same time, he said the state must be sensitive to the concerns of consumers. An educational approach is needed, he said.

### Promises and concerns

While public concern over genetically modified crops is relatively recent, for years farmers have turned to science to help them improve the quality and quantity of crops. Selective breeding and hybridization enabled farmers to increase production and develop some defenses for crops against devastating pests and disease. Since 1994,

### Exports at risk?

Though the biotech industry has been regulated at the federal level since the early 1980s, critics worry that it's not enough. Responsibility is shared between the U.S. Food and



California Sen. Jim Costa

Drug Administration, the EPA and the Department of Agriculture. Nearly 60 crops enhanced through biotechnology have been approved by the U.S. government. The more than 76 million U.S. acres of biotech crops accounted for about 57 percent of the soybeans, 65 percent of the cotton and 38 percent of the corn grown in the nation in 1999.

Farmers wonder about the impact of the European Union's newly adopted labeling regulations for foods containing biotech ingredients, and a similar trend in other countries such as Japan and Australia. For the farmer who grows biotech and nonbiotech crops, the cost could be significant to segregate the crops — to harvest, store and transport them separately.

Currently, 18 percent of the U.S. corn market is exported — the rest is used domestically. Of the corn exported, 94 percent goes to Latin America, Japan, Africa and the Middle East. While a few of the biotech-corn varieties grown in the United States have been approved by the EU, there are still a number of varieties that have not. However, EU purchases of corn represent less than 1 percent of U.S. corn exports.

Forty-two percent of the U.S. soybean market is exported, 33 percent to the European Union. Though the EU buys the largest share of the U.S. crop, the biotech soybean commercially grown in the U.S. now is EU-approved, so the USDA contends it is unlikely EU countries will stop the soybean trade. The international soybean market is very competitive, however, and is carefully watched.

### Benefits of biotechnology

From the perspective of many farmers, genetically modified crops have been a saving grace, curbing the costs of production.

"(Genetically modified) crops have absolutely been a lifesaver to me," said Bill Blackford, a Kentucky farmer who raises genetically modified corn and soybeans. "Due to the reduction in the amount of pesticide used and applications necessary, my costs for raising

soybeans have gone from \$60 an acre to \$21 an acre."

Biotechnology companies and those with related businesses also play a sig-

costs of production. There are many benefits to agriculture and the growing world population from biotechnology."

Legislators across the nation might



*Genetic research holds promise for better crops.*

nificant part in the debate.

"Outreach to consumers, lawmakers and regulators on food biotechnology has been a top priority for GMA," said Chip Kunde, vice president of State Affairs for the Grocery Manufacturers of America. "That's why we worked with food, farm, retail, nutrition and scientific groups to create the Alliance for Better Foods, a coalition of more than 40 organizations dedicated to providing fact-based information to consumers about food biotechnology. Our goal is to facilitate a discussion surrounding food biotechnology that is based on sound science."

State agricultural experts also value biotechnology. Texas Agriculture Commissioner Susan Combs said, "Biotechnology offers tremendous opportunities for the agricultural industry. Genetic enhancement is helping to increase the nutritional quality of food, to improve the environment and to reduce the

expect more legislation dealing with biotechnology in future sessions. For now, states are tending toward studying the issue rather than passing legislation to halt the growth of the industry. ★

### CSG resources

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A CSG South regional resource, *Agriculture and Biotechnology* by Jonathan Watts Hull, Feb. 2000, is available from the CSG Southern office, (404) 266-1271.

More is on the Web sites of the U.S. Department of Agriculture, [www.aphis.usda.gov/biotechnology](http://www.aphis.usda.gov/biotechnology), and Economic Research Service, [www.econ.ag.gov](http://www.econ.ag.gov).