



**ENVIRONMENTAL REGULATION: U.S. Courts Say
Transgenic Crops Need Tighter Scrutiny**

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livestock grazing. The tone ranged from matter-of-fact to unabashedly techno-optimistic. In a fast-paced pep talk in the run-up to the Wedge Game, for example, long-time alternative-energy advocate Amory Lovins of the Rocky Mountain Institute in Snowmass, Colorado, hymned the virtues of greener living through engineering. Ultralight low-drag cars, better-

insulated houses, and decentralized low-carbon “micropower” energy sources, he predicted, would stabilize Earth’s climate while reaping huge profits for businesses that seize the opportunities they present. “The low-hanging fruit is mashing up around our ankles,” Lovins said.

Perhaps influenced by Lovins, the Wedge Gamers voted for a deep-green mix of two parts

increased efficiency and one part each solar electricity, wind power, driving less, switching from petroleum to natural gas, and “biostorage” (planting forests to absorb CO₂). It’s far from current U.S. energy policy, but it reflects much of the thinking on display at many other sessions at this meeting. **—ROBERT COONTZ**

With reporting by David Grimm, Eli Kintisch, Greg Miller, and Erik Stokstad.

ENVIRONMENTAL REGULATION

U.S. Courts Say Transgenic Crops Need Tighter Scrutiny

Citing a broad range of risks, U.S. federal judges in three separate cases have asked the U.S. Department of Agriculture (USDA) to examine genetically engineered crops more closely. The courts said the department had violated the National Environmental Protection Act (NEPA) in approving commercial sales of transgenic alfalfa and field trials of turf grass and plants engineered to produce pharmaceuticals.

Critics of genetically engineered crops say the decisions, two issued this month and one last August, will compel tighter regulation of transgenic crops. Will Rostov, an attorney for the Center for Food Safety in Washington, D.C., which filed all three lawsuits, called the alfalfa decision, rendered 12 February by U.S. District Judge Charles Breyer in San Francisco, California, “another nail in the coffin for USDA’s hands-off approach to regulation.” But Stanley Abramson, a lawyer who represents several biotech companies, pointed out that the courts raised questions about USDA’s procedures, not its substantive decisions. He predicted that USDA’s final judgments would hold up in court.

The alfalfa verdict could have the most significant impact. In 2005, USDA approved the sale of Roundup Ready alfalfa, jointly developed by Monsanto and Forage Genetics International, which can withstand the popular herbicide glyphosate. But last week, Breyer said that the department should have first prepared an environmental impact statement (EIS) as required under NEPA.

Joseph Mendelson of the Center for Food Safety said that his group may demand an end to sales of genetically engineered alfalfa or even a ban on planting transgenic seed already in farmers’ hands. USDA officials declined to discuss the government’s position or whether it plans to appeal. A spokesperson for Monsanto, which sells genetically engineered alfalfa



On the farm. Alfalfa is the third most valuable crop grown in the United States.

but was not a party to the lawsuit, said he did not expect sales to be halted. Breyer gave both sides until next week to propose regulatory fixes.

The second verdict, handed down 5 February by a Washington, D.C., district judge, found that USDA should have carried out an EIS or a more modest environmental assessment before it allowed a 162-hectare field trial of transgenic turf grass near Madras, Oregon, in 2003. And last August, a federal court in Hawaii faulted USDA for approving field trials in Hawaii of corn and sugar cane engineered to produce experimental pharmaceuticals without considering the state’s numerous endangered species.

In two of the cases, the judges expressed

concerns about potential risks that USDA has dismissed as insignificant or outside its mandate. Breyer, for instance, complained that USDA ignored the cumulative impact of glyphosate-tolerant alfalfa, corn, and soybeans. Greater use of glyphosate increases the odds that weeds will develop resistance to it.

Breyer also said USDA erred when it dismissed as not “significant” the concerns of organic farmers who don’t want Roundup Ready pollen or seeds spreading to their alfalfa fields. The possible replacement of traditional varieties is itself significant, he noted. “An action which eliminates or ... greatly reduces the availability of a particular plant—here, nonengineered alfalfa—has a significant effect on the human environment,” he wrote.

USDA argued that cross-pollination wasn’t a serious problem in alfalfa, because farmers typically harvest their fields before the plants have a chance to flower, much less produce seeds. Producers of commercial alfalfa seed, however, would have to make sure their conventional and transgenic fields were widely separated. Alfalfa is pollinated by bees, which can carry pollen at least 3 kilometers.

In the turf grass case, Judge Henry Kennedy found that transgenic bentgrass from a large field trial in Oregon threatened a nearby area’s “aesthetic and recreational” value. Pollen from the bentgrass spread up to 20 kilometers into the nearby Crooked River National Grassland.

Many scientists, including some critics of genetically engineered crops, say the bentgrass poses no real ecological threat in that area because it isn’t well adapted to the region’s arid climate. But the spread of this “confined” field trial proved embarrassing to the Scotts Co., which hopes eventually to sell bentgrass seed to golf courses.

—DAN CHARLES

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