

Global GMO Litigation Analysis of Top Trends

v-Fluence identified the one hundred most visible and influential legal cases centered on genetically modified organism. This case compilation is the product of research across two years of company market analysis and reporting, along with supplemental searches into U.S. legal databases and international legal news outlets.

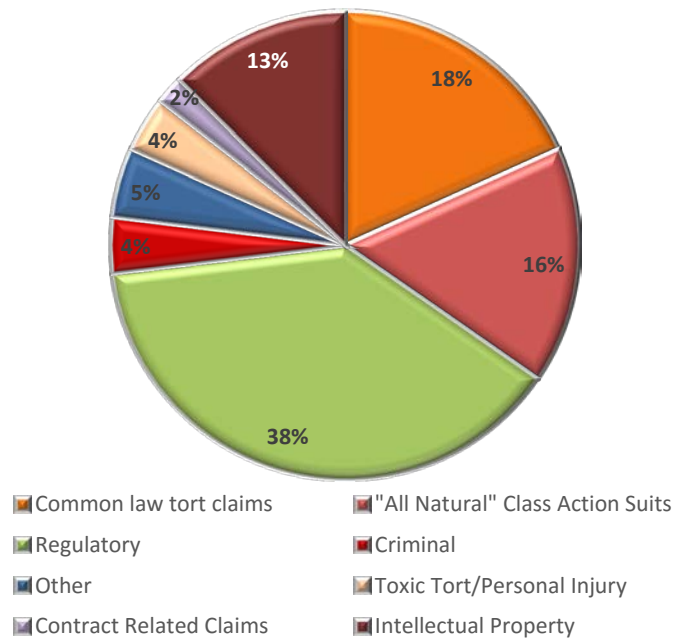
To better understand the legal environment for GMOs, v-Fluence has categorized cases by the nature of the disputes and their regions, as well as identified major stakeholders associated with ag-biotech litigation. Key findings are outlined below.

Case Type

GMO-related cases primarily fall into one of eight categories:

- **Toxic Tort/Personal Injury** – Suits claiming GMO exposure causes harm.
- **Intellectual Property Claims** – Emphasis on cases addressing farmer violations of corporate patents and royalty disputes
- **Traditional Common Law Tort-Based Claims** – Disputes on cross-contamination, unintentional GM grain mixing
- **“All Natural” Claims** – Actions against food makers and retailers alleging inaccurate or false advertising of “all natural” products containing GMOs.
- **Contract Related Claims** – Corporate-grower seed saving disputes and contract violations
- **Other Claims** – Often connected to biotech stakeholder activities – defamation
- **Regulatory Actions** – Demands for regulatory enforcement and compliance and challenges to government approvals
- **Criminal Actions** – Suits related to illegal GM seed sales, counterfeit GM seeds and seed theft

Case Type Breakdown



Regulatory-focused legal actions made up the largest share of the ag-biotech litigation landscape. These cases are largely driven by environmental and consumer health groups challenging government policy or lack of enforcement. The country's Department of Agriculture is the most common target of these suits. Typically, cases demand action around one three things:

- GMO cultivation:** White v. Josephine County challenged the Josephine County, Oregon ordinance banning GMO cultivation. A coalition of NGOs in Mexico launched an ongoing class action against the country's ag ministry to challenge the planting of biotech maize. Greenpeace sued Thailand's Department of Agriculture alleging the agency was negligent in allowing open field trials of GM papaya.
- GM seed approval:** In Center for Food Safety v. Vilsack, CFS alleges the decision by USDA APHIS to deregulate Roundup Ready alfalfa violated the National Environmental Policy Act, the Plant Protection Act, the Endangered Species Act and the Administrative Procedure Act. A coalition of EU NGOs led by Testbiotech filed a lawsuit against the European Commission claiming the European Food Safety Authority approved Monsanto Intacta without carrying out a proper risk assessment.
- GMO labeling:** Grocery Manufacturers Association v. Sorrell is challenging the Vermont GMO labeling mandate. In Argentina, a consumer led lawsuit, Gimenez Alicia Fanny other, calls for labeling on products containing genetically modified organisms. The suit also demands a moratorium on GMO cultivation.

While common law tort claims capture the second largest share of GMO suits, the category is likely underrepresented by the research sample due to the consolidation of thousands of lawsuits into single

multi-district class actions, which are catalogued in the v-Fluence GMO litigation spreadsheet. The most noteworthy of these suits, and the largest, exist between growers and seed makers or suppliers:

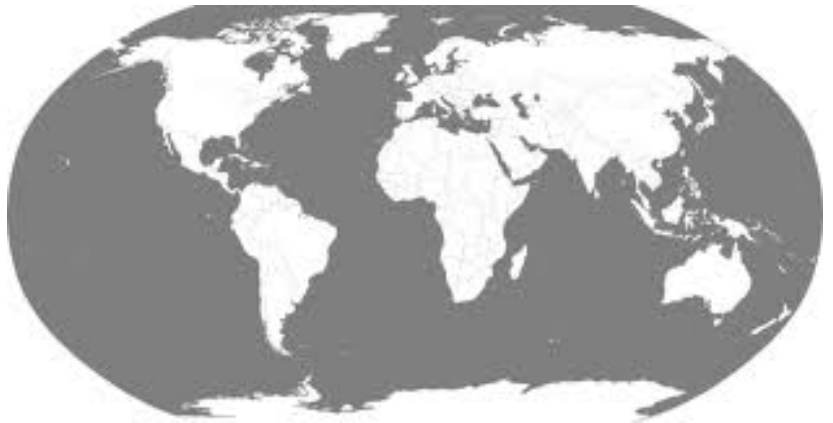
- In re: Genetically Modified Rice Litigation v. The Phipps Group, Appellee – unapproved genetically modified rice contaminated rice supply,
- In re: Syngenta AG MIR 162 Corn Litigation – delayed product approval from China disrupts GM corn export market,
- In re: StarLink Corn Products Liability Litigation – Aventis StarLink corn contamination of human food depresses corn market
- In re: Monsanto co. Genetically-Engineered Wheat Litigation – discovery of Monsanto GE wheat in Oregon farm halts trade, disrupts market

Suits attacked food makers' "all natural" product labeling is a more recent phenomenon. Research shows the majority of influential lawsuits on this issue emerging after 2010. As consumer awareness of GMOs continues to grow, in part due to pro-labeling policy campaigns, these suits are expected to increase further in frequency. To date, defendant lists feature ConAgra, Pepperidge Farms, Frito-Lay, Kashi Co., Smucker Co., Whole Foods, Campbell Soup Co., Abbott Laboratories, General Mills, Heinz Co., Naked Juice and Chipotle.

The visibility of "all-natural" and regulatory suits aligns with media reporting and advocacy activity. Challenges to "all-natural" claims enjoy more media amplification as they directly implicate consumers, while regulatory suits benefit from attention drummed up from associated NGO campaigns.

Region

v-Fluence identified GMO-related litigation in every continent, though due to analysts access to local databases and their familiarity with the legal system, U.S.-based cases are far more robust than the international collection. Cases identified in regions outside of North America that are catalogued in this research sample received international attention.



North America: California and Hawaii were the top producers of U.S. lawsuits. Center for Food Safety, based in California, instigated many of its regulatory suits from its home state (Center for Food Safety v. Vilisack) and Hawaii was home to several disputes around citizen-backed ordinances seeking to ban GMO cultivation in the various Hawaii counties (Taal et. al v Mateo; Robert Ito Farm v. County of Maui). The United States also is the hub for lawsuits against "all natural" product claims. If other countries challenge similar labels elsewhere, they are influential cases. While not an active producer of GMO-

related lawsuits, Canada is responsible from one of the most well-known and regularly cited intellectual property cases, *Monsanto Canada v. Schmeiser*.

Latin America: Latin America is the second most active region for GMO litigation, due mostly due regulatory and intellectual property disputes in Argentina. The country is a hot spot for ag-biotech opposition, illustrated by lawsuits calling for a moratorium on GMO cultivation (Gimenez Alicia Fanny and others) and an annulment to government approval of Monsanto's Intacta soybeans (*Center for Environmental Legal Studies v Ministry of Agriculture*). The country also soured its relationship with Monsanto by refusing to charge royalties on Monsanto seeds, prompting the company to file suits in 2007 against soy suppliers to halt Argentina GM soy exports until royalties are paid. Mexico and Brazil are also active litigation regions in Latin America.

Europe: While cases are tried within individual countries, many EU-based lawsuits are targeted at the broader European regulatory agencies, such as the EU Commission and EU Parliament. The majority of visible cases in Europe center on GM trait approvals. Pioneer led a six-year case accusing the European Commission of inaction on its approval application for Pioneer maize. Around the same time, BASF also challenged the Commission, accusing it of delaying approval of its GM potato Amflora. France saw a defamation case between Giles Eric Séralini and the publication *Marianne* after the magazine suggested Séralini was a fraud. In Germany, the state of Saxony-Anhalt filed a regulatory suit challenging restrictions in the Genetic Engineering Act and arguing farmers should be allowed to plant GM crops.

Asia: China, Thailand, India and the Philippines are the main producers of lawsuits in Asia. Cases in Asia are more unique, for example, the region has multiple criminal GMO cases due to field trial vandalism in Thailand (*Thailand Department of Agriculture v Greenpeace activists*) and alleged seed knowledge misuse/violation by Monsanto in India (*Environment Support Group v National Biodiversity Authority et al.*) Furthermore, two defamation cases emerged in China; one scientist accused a local TV host of defaming him on social media after the two participated in a GMO debate (*Zhouzi v Yongyuan*); in the second, KFC calimed an online firm for spreading false rumors it sold GM mutant chickens (*KFC v. Shanxi Weilukuang Technology Company Ltd., Taiyuan Zero Point Technology Company and Yingchenanzhi Success and Culture Communication Ltd.*). Greenpeace was responsible for two regulatory suits calling for bans on GMO cultivation in Thailand and the Philippines.

Africa: In Africa, influential cases have surfaced in Ghana, Kenya and South Africa, all challenging GMO regulations and all led by groups seeking to defend small farmers and local biodiversity. Food Sovereignty Ghana sued the food ministry to prevent commercialization of genetically modified foods in the country (*Food Sovereignty Ghana v Ministry of Food & Agriculture and the National Biosafety Committee*). Kenya Small Scale Farmers recently petitioned the government to prevent it from lifting Kenya's GMO ban. In South Africa, Biowatch issued a lawsuit against the agriculture department seeking disclosure of information on the risk assessments conducted on genetically modified crops in the country (*Biowatch v. Department of Agriculture*).

Oceania: While only one lawsuit surfaced out of Oceanic countries, it has been the center of international news coverage. Organic farmer Steve Marsh sued his neighbor, a GMO farmer, alleging his

GM canola contaminated Marsh's organic crops (Marsh v Baxter). The suit mobilized local environmental groups, which rallied behind Marsh. It is one of the few common tort claims not involving a large corporation that has provoked so much media and stakeholder attention.

Prominent Stakeholders

Many lawsuits covered by v-Fluence and catalogued in the supplemental spreadsheet share common stakeholders. These groups should be considered likely candidates to lead future legal endeavors in this space or serve as the targets of them.



Center for Food Safety – Approximately 10 percent of cases feature Center for Food Safety as a plaintiff. The group and its founder, Andrew Kimbrell, are affiliated with all major regulatory suits in the United States that challenge GMO cultivation.

Greenpeace – While an international environmental group, Greenpeace has focused much of its anti-GMO activity in Asia. It is behind lawsuits in Thailand and the Philippines challenging local GMO cultivation. Members also conduct GMO field trials in these regions.



Monsanto – Monsanto is affiliated with 20 percent of the GMO cases featured in this research sample. The company is regularly the defendant in common law tort and intellectual property cases, and regularly is listed as a co-defendant in regulatory suits.