



Ag Biotech Countdown: Vital Statistics and GM Crops

Update - June, 2002

According to the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) the global area devoted to transgenic or genetically modified (GM) crops has increased more than 30-fold from 1.7 million hectares in 1996 to 52.6 million hectares in 2001.¹ The statistics show an extraordinarily rapid market introduction. More astonishing is the concentration in ownership and control of GM crop technology. At this point in time, GM crop technology is dominated almost exclusively by a single company, in limited geographical areas. GM technology is deployed in four major industrial crops and focuses on just two GM traits.

- 1** One company's GM seed technology (Monsanto's) accounted for 91% of the total world area devoted to commercial GM crops in 2001.²
- 2** Two genetically engineered traits – herbicide tolerance and *B.t.* insect resistance, accounted for virtually all of the 52.6 million hectares devoted to GM crops in 2001. Herbicide tolerance accounted for 77% of the global GM area, with 15% devoted to Bt crops, and 8% of the total area planted in stacked traits (that is, both herbicide tolerance and insect resistance).
- 3** Three countries (US, Argentina and Canada) accounted for 96% of the global transgenic area in 2001. The US accounted for 68% of the total GM area; Argentina accounted for 22%; and Canada 6%. China accounted for an additional 3% of the total GM crop area. In other words, just 4 countries grew 99% of the global transgenic crop area.
- 4** Four industrial crop commodities (soybeans [63%], maize [19%], cotton [13%], canola [5%]) accounted for 100% of the commercial GM crop area planted in 2001. Significantly, 46% of the 72 million hectares of soybean planted worldwide in 2001 was planted in genetically modified soybeans. (20% of the total crop area planted in

cotton is transgenic; 11% of the global area devoted to canola is transgenic; 7% of the total world area planted in maize is transgenic.)

5 **Five major Gene Giants** - Pharmacia (Monsanto), DuPont, Syngenta, Bayer, Dow – are the five companies that dominate ag biotech. (Bayer acquired Aventis CropScience for approximately \$6.6 billion.) Monsanto will soon be spun off from Pharmacia; BASF has made major investments in ag biotech, but is still considered a junior Gene Giant.

¹ James, C. 2001. Global Review of Commercialized Transgenic Crops: 2001. *ISAAA Briefs* No. 24 Preview. ISAAA: Ithaca, NY. ISAAA is the source of GM statistics cited in this update unless otherwise noted.

² Source: Monsanto web site, using ISAAA's statistic for global GM crop area. According to Monsanto, the company's GM seed technology covered 48 million hectares (118 million acres) in 2001.