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Nothing New: ISAAA's GM Crop Statistics for 2014

On January 28, 2015, the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) published the Executive Summary of its report on global GM crop cultivation in 2014, the 19th year of GM crop commercialization.
James, Clive. 2014. Global Status of Commercialized Biotech/GM Crops: 2014. Executive Summary, ISAAA Brief No. 49. ISAAA: Ithaca, NY.

The Executive Summary of ISAAA's latest report shows that very little has changed in global GM crop acreage and adoption in 2014, over 2013.

The world's GM crops are still grown largely by a handful of countries:

- The US, Brazil and Argentina still account for 77% of the total global GM crop acreage.
- The top 10 countries that grow GM crops still account for 98% of all the GM crops grown.
- The list of top 10 countries growing GM crops remains the same (2010-2014).

Of the 28 countries growing GM crops, many grow few GM acres that account for a fraction of global GM area:

- 19 countries account for less than 1% of total global GM acreage each.
- This includes countries such as Sudan, Colombia and Spain, which grow approximately 100,000 hectares of GM crops each.
- Many of these countries devote only a fraction of their agricultural land to cultivating GM crops. For example, Sudan's GM acreage accounts for 0.9% of its agricultural land, Columbia's 0.2%, Australia's 0.1%, and Spain's 0.3%
- GM crops are grown on less than 4% of global agricultural land and 13% of global arable land.

There was a global increase of 6.3 million hectares of GM crops from 2013, an increase of 3.6%.

- 8 countries had a slightly larger area under GM crops, 4 had less, and the rest had the same as in 2013.
- The US and Brazil accounted for much of the total increase. The US grew 3 million more GM hectares than the year before. Brazil grew 1.9 million hectares more.
- ISAAA says that the US "maintains [a] leadership role" – this means that the US still grows 40% of all GM crops in the world, the same as in 2013.
- Four countries – Argentina, China, South Africa and Australia – reduced their overall acreage, also by a very small amount.

There was no significant change in the suite of GM crops and traits available on the market.

- The ISAAA report says that they are now 10 commercial GM crops. However, many of these are grown on very small areas. In 2013, 4 GM crops – corn, soy, canola and cotton, accounted for more than 99% of all GM crops. (Statistics for GM crop percentages in 2014 were not included in ISAAA's Executive Summary).
- ISAAA highlights new GM crops, but they are faltering, and often entering the market in the midst of tremendous consumer controversy, farmer opposition and/or without democratic process:
    - Bt eggplant was commercialized in Bangladesh in 2014, disregarding major opposition from farmers and consumers, in a fast process that did not include public consultation. GM eggplant has so far only been grown on 12 ha in Bangladesh (ISAAA tells us). Bangladesh has approximately 9 million hectares of agricultural land, and according to ISAAA, Brinjal is grown on about 50,000 of these hectares.

- A GM potato that is less susceptible to browning, with lower levels of acrylamide in cooking, was approved in the US but is not yet commercially available and initial food manufacturer responses indicate that commercial rejection is likely.
- Monsanto's GM Low Lignin alfalfa was approved in the US and Canada last year, to be launched in a stack with Roundup Ready traits. Roundup Ready alfalfa is grown in the US but not yet commercially released in Canada due to farmer and public protest.

Failures behind ISAAA's Success Stories

ISAAA claims that farmers in developing countries have been helped by and are choosing GM crops. Cotton farmers in India are one of ISAAA's highlighted examples. However, cotton farmers in India – especially those who rely on small land holdings, with marginal soil and who are dependent on rainfall – have experienced drastic failures of Bt cotton, with severe economic and social impacts. This failure has been acknowledged by several academic researchers, in civil society reports, by a team of experts put together by the Supreme Court to investigate the issue, and by the Parliamentary Standing Committee of Agriculture, who in a report on the subject, concluded: "After the euphoria of a few initial years, Bt cotton cultivation has only added to the miseries of the small and marginal farmers."

ISAAA also does not mention that often when there is public consultation on the commercialization of new GM crops like Bt Brinjal, as was done in India in 2009, there is strong opposition from farmers and consumers. An accountable political process would respond to this opposition and not allow the crop to be commercialized. This is part of the reason that Bt Brinjal was not commercialized in India despite pressure from the biotech industry.

Status of "Golden Rice" GM Vitamin-A Rice

The research, development and promotion of Golden Rice has used a huge amount of resources and time, and as ISAAA tells us, the crop is still not ready. ISAAA includes a "Status of Golden Rice" section in their Executive Summary that tells us that the International Rice Research Institute (IRRI) continues its "research, analysis and testing" in partnership with collaborating national research agencies in the Philippines, Indonesia and Bangladesh.

Golden Rice is not yet approved for use in any country:

- In October 2014, the developer of Golden Rice, Ingo Potrykus, told an industry conference in Canada that the national implementation of biosafety regulations was slowing the approval of Golden Rice: "These rules and regulations are responsible for the fact hat Golden Rice is not yet in the hands of farmers. This will take a few more years." (Presentation to the Agricultural Biotechnology Industry Conference 2014, Saskatchewan, October 5-8, 2014)
- In 2013, IRRI confirmed that, "it has not yet been determined whether daily consumption of Golden Rice does improve the vitamin A status of people who are vitamin A deficient and could therefore reduce related conditions such as night blindness." (Clarifying recent news about Golden Rice. http://irri.org/blogs/golden-rice-blog/clarifying-recent-news-about-golden-rice. 21 February 2013)

CBAN's GMO Inquiry 2015: Investigating 20 Years of GMOs

On January 27, 2015, the Canadian Biotechnology Action Network launched *GMO Inquiry 2015* to investigate the real impacts and risks of GMOs, after 20 years of commercialization in Canada. Throughout the year, CBAN will publish research on the major unanswered questions about GMOs, including the reality of GM crop adoption. Follow the inquiry at www.GMOinquiry.ca.

For details:

Golden Rice – Vitamin-A Rice www.cban.ca/GoldenRiceFactsheet

"Will GM Crops Feed the World?" 2014 www.cban.ca/FeedingtheWorld