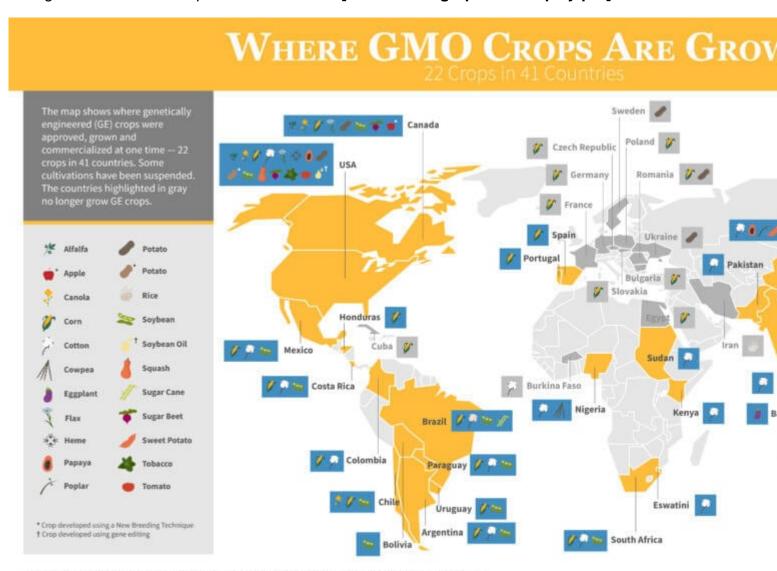
Where are GMO crops grown? GLP infographics document the global growth of agricultural biotechnology innovation

One of the more popular claims by critics of GMOs is that only a few countries grow genetically engineered crops, led by the United States, Canada, Brazil and Argentina. That's just not true. It's a worldwide phenomenon, and breakthroughs continued this year with the introduction of GMO crops in Kenya and Nigeria, and the anticipated rollout of Golden Rice in the Philippines.

To set the record straight, the Genetic Literacy Project has released "Where GMO Crops are Grown," a combination of two linked infographics that illustrate the explosive growth worldwide in the use of transgenic seeds over the past three decades. [click on infographic to display pdf]



Designed by GLP data visualization specialist Kayleen Schreiber, the graphics document the introduction

of 22 different crops developed in 41 different countries through transgenics (GMO), gene editing or other New Breeding Techniques. As the first of the two infographics illustrate, not all the countries that have introduced genetically modified crops over the past 28 years are still growing them, and some countries that still grow them have discontinued various crops for political or economic reasons.

For example, the first GMO crop commercialized in the US was the <u>FLAVR SAVR</u> tomato, engineered to extend its shelf life and minimize fruit softening. It fell short of expectations and its producer, Calgene, discontinued sales. Currently, 28 nations grow <u>nearly 200 million hectares</u> of genetically engineered plants every year, a <u>roughly 113-fold increase</u> from 1.7 million hectares in 1996. Biotech crops are the <u>fastest-adopted technology</u> in the history of modern agriculture.

The second infographic can be accessed by clicking on the purple box on the right side of the map, which launches an animation documenting when each of the 41 countries commercialized its first biotech crop. **[click on infographic to display pdf]** 

## 41 Countries Planted Their First Genetically-Altered Crop, 1992-2020

2020		KENYA	COTTON
2020	11	NIGERIA	COTTON
2018	16.38	ESWATINI	COTTON
2015		VIETNAM	CORN
2014		BANGLADESH	EGGPLANT
2012	<b>6</b> =	CUBA	CORN
2012		SUDAN	COTTON
2010	85.38	MYANMAR	COTTON
2010	(C)	PAKISTAN	COTTON
2010		SWEDEN	POTATO
2009		COSTA RICA	COTTON
2008	-	BOLIVIA	SOYBEAN
2008	=	EGYPT	ECIRN
2008		BURKINA FASO	
2007	-	POLAND	CORN
2006	Siles.	SLOVAKIA	RICE
2005	_	IRAN	RICE
2005	-	CZECH REPUBLIC	CORN
2003		PARAGUAY	SOYBEAN
2003		PHILIPPINES	CORN
2003	_	COLOMBIA	COTTON
2003	0	BRAZIL	SOYBEAN
2002		BULGARIA	CORN
2002		HONDURAS	CORN
2002	-	INDIA	COTTON
2001	_	INDONESIA	COTTON
2000	=	URUGUAY	SOYBEAN
1999		UKRAINE	POTATO
1999		ROMANIA	SOYBEAN
1999		PORTUGAL	CORN
1999		GERMANY	CORN
1998		FRANCE	CORN
1998	-	SPAIN	CORN
1998	>-	SOUTH AFRICA	COTTON
1996		MEXICO	SOYBEAN
1996	-	CHILE	CORN
1996		AUSTRALIA	COTTON
1996	-	ARGENTINA	SOYBEAN
1996	1-1	CANADA	CANOLA
1994		UNITED STATES	ТОМАТО
1992		CHINA	TOBACCO

The two graphics can be downloaded together <u>here</u>, or you can download each graphic separately: <u>Where GMO Crops are Grown or 41 Countries Planted Their First Genetically Altered Crop</u>, 1992-2020.

An evolving story emerges from these infographics. While many nations have embraced genetic engineering and never looked back, 13 of 41 countries have stopped cultivating biotech crops altogether.

Burkina Faso, for example, under huge political pressure, halted the cultivation of GMO insect-resistant Bt cotton in 2015, leaving its farmers to face increased pesticide exposure and higher production costs.

Meanwhile, other nations, <u>like China</u>, are close to <u>green-lighting many different</u> plant varieties, and import many GMO crops, but currently only allow their farmers to grow <u>a limited number of</u> genetically engineered crops. Because of this tangled regulatory web, just five nations—the US, Canada, Brazil, Argentina and India—cultivate roughly 90 percent of the world's total biotech crop acreage.

Nonetheless, the spread of crop biotechnology is a worldwide phenomenon, contra the rhetoric of many anti-GMO groups. Activist organizations like Greenpeace allege that biotech crops have been a flop throughout most of the world. This narrative is misleading since so many countries continue to approve and cultivate GMO and gene-edited crops, including developing nations such as <a href="Kenya">Kenya</a> and <a href="Nigeria">Nigeria</a>, which joined the GMO club in 2020. Both countries recently approved insect-resistant Bt cotton, while Nigeria also gave farmers the go ahead to plant an insect-resistant cowpea.

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