

Top Ten Facts on Agri-biotechnology and Biosafety in Burkina Faso, By 2015



20th Anniversary of Global Commercialization of Biotech Crops (1996-2015)

FACT 1

2015 was the 8th year for farmers in Burkina Faso to cultivate insect resistant cotton (Bt cotton).

- 1. From the initial 8,500 hectares planted in 2008, a total of 350,000 hectares of Bt cotton were planted in 2015.**
- 2. The hectareage planted with Bt cotton in 2015 was equivalent to 50% of the total 700,000 hectares planted in the country.**
- 3. The insect resistant variety is sold under the commercial name Bollgard II (BGII®).**

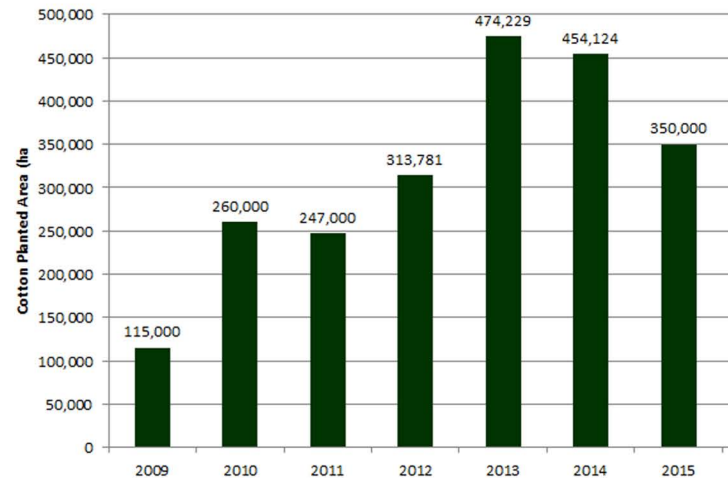


FACT 2

Since 2008, increasing number of farmers made individual and deliberate decisions to grow Bt cotton.

1. In 2015, approximately 111,000 farmers grew Bt cotton from the initial 4,300 that planted the crop in 2008.
2. The adoption rate recorded in 2015 represents a 26-fold increase from the initial number of farmers who planted.
3. Majority of farmers growing Bt cotton are smallholders farmers with an average of 3.16 hectares.

Bt Cotton (BGII) Planted Area (ha) 2009 - 2015



FACT 3

Small and large holder farmers have realized significant social economic benefits by growing Bt cotton. Between 2008 and 2014 the estimated accumulated economic benefits from Bt cotton were US\$178 million. These benefits are attributed to;

- 1. Yield increase of 20% compared to conventional varieties.**
- 2. Reduction in insecticide use from 6 to 2 sprays which have reduced the cost of production.**
- 3. Decreased incidences of pesticide-induced poisoning and enhanced environmental quality.**



FACT 4

Many social welfare benefits related to reduction in pesticide applications have been gained.

- 1. Reduced labour burden for both men and women farmers.**
- 2. Time saved is used to grow additional food crops.**
- 3. Decreased strain on women, who routinely walk long distances in search of water to prepare chemical sprays.**



FACT 5

Strong public private partnerships have played a key role in development and stewardship of Bt cotton in Burkina Faso.

- 1. The State, a co-owner of the genetically modified varieties with Monsanto, develops foundation seed through the country's agricultural research institute, Institut de l'Environnement et de Recherches Agricoles (INERA).**
- 2. A private cotton company, SOFITEX multiplies the seed and distributes to the farmers.**
- 3. Benefits of the technology are shared among partners, with the largest stake going to farmers.**



FACT 6

Burkinabe researchers in collaboration with other partners are actively involved in other biotechnology research activities on cotton, cowpea and sorghum.

- 1. Research on cowpea is focusing on developing GM pod-borer resistant varieties expected to yield 20% more than conventional varieties. These varieties were at multi-locational trials stage in three sites by 2015.**
- 2. In sorghum, research is aimed at generating a bio-fortified sorghum that contains lysine, vitamin A, iron and zinc.**
- 3. By 2015, insect resistant/ herbicide tolerant cotton was in the 2nd stage of confined field trials while research to address the short staple length observed in current Bt cotton varieties is underway.**



FACT 7

The Agence Nationale de Biosecurité (ANB) is the country's competent authority in charge of determining terms and conditions for use of GM crops.

- 1. Burkina Faso ratified the Cartagena Protocol on Biosafety on 25th April 2003 and passed its Biosafety law in 2006.**
- 2. ANB is affiliated to the Ministry of Higher Education, Scientific Research and Innovation and works with two advisory boards.**
- 3. The Agency works with the National Biosafety Scientific Committee and the National Biosafety Observatory Board.**



FACT 8

The rapid growth of Bt cotton adoption and ongoing biotech research has enjoyed strong government political goodwill over the years.

1. The government has provided facilitative policy environment and support for continuous stewardship initiatives to improve the cotton subsector.
2. The government has supported development of requisite biosafety regulations for GM crops evaluation and commercialization.
3. As the pioneer in GM crops commercialisation in western Africa region, many countries have learned about the benefits, opportunities and challenges associated with adoption of biotech/GM crops in Africa.



FACT 9

Burkina Faso was among the 15 countries that grew biotech cotton in 2015 when a total of 24 million hectares were planted on biotech upland cotton.

- 1. Four of the countries grew more than 1.0 million hectares: India (11.6 million hectares), China (3.6 million), USA (3.4 million), and Pakistan (2.9 million hectares).**
- 2. In 2015, biotech hybrid cotton in India, the largest cotton growing country in the world, occupied 11.6 million hectares of approved Bt cotton despite almost optimal levels of adoption which reached 95% in 2015.**
- 3. The increase in income benefits for farmers growing biotech cotton during the 19-year period 1996 to 2014 was US\$46.5 billion and US\$4.1 billion for 2014 alone .**



FACT 10

Three key lessons from eight years of growing Bt cotton emerge;

1. Importance of adhering to best agronomic practices and strong stewardship plans for sustaining product integrity.
2. Significance of integrating the best of conventional breeding with the best of biotech applications as informed by local stakeholders to enhance impact.
3. The value of a strong multidisciplinary and all-inclusive communication and outreach program to keep all stakeholders engaged.



LA FERME SEMENCIERE
AGRONOMIQUE DE BONZ
CREATION: Février 1965
SURFACE : 102ha dont 70 exploitées
PERSONNEL :
- 04 Permanents
- 08 Saisonniers
- Occasionnels (Variant Selon les Récoltes)
MOYENS DE PRODUCTION :
- 02 Tracteurs équipés
- Culture attelée
FACTEURS DE PRODUCTION :
- Engrais organique
- Engrais minérale
- Pesticides

OBJECTIFS DE LA FERME
- ASSURER la Production Semencière du
Coton et d'Autres Cultures
- ASSURER l'expérimentation et la
Conformation des Innovations
Techniques Vulgarisables par
la SOFITEX
- Favoriser la Formation des Producteurs
et des Agents d'Appui Conseil aux
Producteurs dans les Domaines Suivants
- le Développement et l'Amélioration de la
Fertilité des Sols Par Différentes
Techniques de Production de Fumure
- le Développement de
Systèmes d'Exploitations
Intégrées des Sites Anti-érosifs
- l'Adoption des Techniques de
Reproduction des Plantes en Pépinières
- l'Adoption des Techniques de
Entretien des Bœufs



"My first experience with Bt cotton fetched me 300,000 CFA francs. At the time, I had never handled that kind of money before in my life. I had to carry a bag to withdraw that much cash! Since then, I have always hit that amount or even more. Last year, I made 1.3 million CFA francs. It is only when we get poor rainfall that I find myself below one million CFA francs."

- Rasmané Bélem, a Burkinabé Bt cotton farmer



ISAAA AfriCenter
ILRI Campus, Old Naivasha Road,
P.O.Box 70-00605,
Uthiru, Nairobi, Kenya.
Tel: +254 20 4223618,
Fax: +254 20 4223634
Email: africenter@isaaa.org
Website: www.africenter.isaaa.org



OPEN FORUM ON AGRICULTURAL
BIOTECHNOLOGY IN AFRICA

AATF
ILRI Campus, Old Naivasha Road,
P.O.Box 30709-00100,
Nairobi, Kenya.
Tel: +254 20 422 3700,
Fax: + 254 20 422 3701
Email: ofab@aatf-africa.org
Website: www.aatf-africa.org