

Voluntary Report – Voluntary - Public Distribution

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Report Number: GH2022-0012

Report Name: BT Cowpea Approved for Environmental and Market Release

Country: Ghana

Post: Accra

Report Category: Biotechnology - Plants and Animals, Biotechnology and Other New Production Technologies

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Report Highlights:

Ghana's National Biosafety Authority approved the release of the GE crop BT Cowpea into the environment and market, marking the first GE crop to be approved for use in Ghana. The approval lasts for ten years and is renewable. Now the developer (SARI) can conduct field trials in farmers' fields in two multi-locational efforts over two seasons to produce results to be submitted to the National Seed Council's National Variety Release and Registration Committee for validation and final approval as a new variety.

On June 30, 2022, the National Biosafety Authority (NBA) of Ghana approved the release into the environment and market of the GE crop BT Cowpea (*Vigna unguiculata* L. Walp.), event 709A, under development by the Council for Scientific and Industrial Research (CSIR), Savanna Agricultural Research Institute (SARI). The approval lasts for ten years and can be renewed. Field testing for this event began in Ghana in 2016. The pest target is the Maruca pod borer (*Maruca vitrata*), which can reduce cowpea yields by 20-80%. The NBA announced its approval by posting its decision document on the International Biosafety Clearing House website (<https://bch.chd.int/en/>) This is the first GE crop developed and approved by Ghana.

Cowpeas, also known as black-eyed peas in the United States, are a staple in the diet of over 200 million households in sub-Saharan Africa and are also used as livestock fodder. It is a nitrogen fixing, hi-protein bean that requires few inputs and grows well in semi-arid conditions suitable for intercropping.

Ghana currently is estimated to produce only about 57,000 metric tons each year, against an estimated demand of 169,000 metric tons. Imports from Nigeria, Burkina Faso, and Niger make up the difference. Nigeria approved Bt cowpeas in late 2019 and has begun to roll out the new seed. Burkina Faso is also reportedly developing a Bt cowpea as well. SARI estimates that with adoption of this new seed, Ghana can produce enough cowpeas to become self-sufficient and have excess supply available for export. Because the crop is not a hybrid, farmers can save seed for replanting the following season, an important attribute for smallholder farmers. Additionally, as this seed was developed internally within Ghana, it is seen as an indigenous seed. The gene to develop the GE cowpea was obtained from Monsanto (Bayer) through the African Agricultural Technology Foundation at no cost. The varieties developed from this technology will be considered as a public good and will be owned by SARI. Public comments submitted to SARI as they developed this crop were overwhelmingly in support of the crop, with only one objection among the 889 letters received offering commentary. One of the benefits for farmers will be the reduction in pesticide use. Currently farmers need to apply insecticides between 8 to 12 times during the 12-week crop cycle.

The next step in introducing the product to the market will be for SARI to conduct field trials in two distinct multi-locational trails conducted over two separate cropping seasons. Results of these trials will be submitted to the Ministry of Food and Agriculture's National Seed Council's National Variety Release and Registration Committee for validation and approval as a new variety to be registered in the national variety catalogue. With that step concluded, SARI can begin seed distribution into the Ghanaian commercial market.

Attachments:

No Attachments.