



Bt Cotton Updates

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Bt COTTON – GFM Cry1A



- ❑ a genetically modified cotton resistant to bollworm
- ❑ contains the Bt fusion gene, GFM *cry1A*, synthesized based on the protein template of Cry1Ab and Cry1Ac protein from the bacterium, *Bacillus thuringiensis*.
- ❑ called **Fusion Bt**.





CURRENT STATUS



- Field trials are completed
- Permit for propagation in process
- R&D activities in the pipeline
 - Monitoring of insect resistance development
 - Bt gene introgression into local varieties
 - Evaluation with stacked traits, like RR





PROJECTED SOCIO-ECONOMIC IMPACT



A brief analysis

Fusion Bt controls bollworm

✓ **Result**

More harvestable bolls retained

Less use of pesticides against the pest





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A brief analysis

Fusion Bt controls bollworm

- ✓ **Result** **More harvestable bolls are retained**
Higher seedcotton yield & income

Direct impact on personal, family and home concerns

More funds to satisfy personal and family needs, home improvements, mobility and other necessities (Ex. *Barangay Spring, Alabel, Sarangani*. In <https://alabel.gov.ph/spring/>).





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Investment opportunities in the processing and utilization chain

Jobs and quality control systems in ginning, spinning, dyeing, weaving, designing, knitting, fashion, ..., and related services





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More pickers are needed.

Jobs are generated





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Concerns on the quality of labor services





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Gender and development concerns





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More pickers needed

Initial capital for harvesting

Family equity

Hired labor for picking per day

“Pakiaw” system





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Family equity

Loans (coops/banks)

5:6 scheme





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Ideas/innovations on mechanized harvesting

Hand-held, battery operated;
Combines;...





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More jute sacks as containers

Opportunities for the development and utilization of jute and similar fiber materials for harvesting

Jute (and other fibers) R&D





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A brief analysis

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- ✓ **Result** **Less use of pesticides against bollworm**
Less exposure to chemicals

Safety to the farmer's and family's health is ensured

Less illness, less medicine, less hospitalization, ... (more fun!)





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Fusion Bt controls bollworm

- ✓ **Result** **Less use of pesticides against bollworm**
Less time for bollworm control

More time to family and community involvement

Includes freedom to go where services are needed





FARMERS' PERCEPTION



- Interviews under the [RACE](#) Project
 - Higher yield
 - More income
 - Safer to health
 - Safer to the environment





thank you

