



Bayer CropScience – Aditya Birla Okra Project



The Indian
Food Chain
Vegetable Project



Bayer CropScience

The challenge

How it all started

Who can resist buying fresh and uniform-sized okra? These qualities can be a deciding factor for the retail trade. And growing okra using scientific and responsible methods will increase the opportunity to retain the edge in retail stores.

However, how can small-scale Indian farmers be educated to cultivate their crop according to set requirements? This was the key question asked by Aditya Birla Retail Ltd. (ABRL), a leading retail company in India with pan-Indian presence, owning 500 neighbourhood stores and two hypermarkets. They buy fruits and vegetables from farmers, directly through their collection centres.

ABRL wanted to be exclusive by offering high-quality, healthy okras in their stores, so they searched for suitable farmers to meet this demand.

This was the initial situation when Bayer CropScience contacted ABRL management to discuss a partnership model for achieving the customary targets for producing high-quality okra.

The targets

From the outset, both ABRL and Bayer CropScience decided on implementing a sustainable partnership model, involving all stakeholders in the okra value chain. To achieve this objective, the following targets for the relevant partners were set:

Farmers: Overall improvement in net profitability, measured in terms of better yield, better quality and better prices.

Food retailers: Procurement of high-quality and uniform-sized okra from project farmers via collection centres.

Consumers: Continuous supply of healthy and nutritious okra.

Bayer CropScience: Knowledge management regarding integrated okra production according to Good Agricultural Practices (GAP) which comprises, for example, advice to farmers on using top-quality seeds. Optimum use of plant protection products and fertilisers, professional project monitoring, implementation of a farmer's passport, product stewardship measures to ensure the safe use of plant protection products, post-harvest support and the knowledge of downstream quality parameters for healthy and nutritious okra.



Who got involved

Farmers: Innovative and modern farmers from the state of Gujarat were involved in the scheme. Farmers in this project area wished to improve their knowledge and profits and, in addition, were interested in growing okra as per quality requirements of the food retail company ABRL.

Aditya Birla Retail Ltd.: Healthy and uniform-sized okra was the main requirement for the retailer. He was highly interested in training his own agronomists in okra production, and agreed to work exclusively with Bayer CropScience to implement the new crop solution.

Bayer CropScience India: Bayer CropScience India was interested in persuading modern farmers to use the latest innovative inputs according to GAP standards. Bayer CropScience India also wanted to demonstrate that the custom-designed okra solution would bring all-round benefits to all partners involved in this project.



Programme monitoring
by Bayer CropScience India

Training programme for the
project farmers





The comprehensive solution

Bayer CropScience India implemented its “5P” production process within this food chain partnership project, in which farmers are guided and monitored throughout the okra season. The “5P” production process comprises:

Production: From the Bayer CropScience vegetable seed company **Nunhems**, the okra variety Sonal was selected and made available to project farmers in the Gujarat area. The okra variety Sonal covers all ABRL’s downstream quality requirements and provides excellent resistance against infestation of Yellow Vein Mosaic Virus (YVMV). Nunhems vegetable seed experts guide all project farmers on Good Agricultural Practices (GAP).



Nunhems® is a subsidiary of Bayer CropScience and the global specialist in vegetable seeds and sharing products, concepts and expertise adding value to the professional horticultural production industry and supply chain.

Protection: Based on Bayer CropScience India’s expertise on plant protection products and the principles of sustainable agriculture, a spray schedule was designed according to the latest scientific knowledge and Bayer CropScience India’s products. All project farmers implemented this spray schedule during the production season. Correct implementation is a key success factor for the protection of okra against pest and diseases during the production process.

Programme monitoring: During the okra production season, a Bayer CropScience India project officer monitored the implementation of the spray programme by regularly visiting the project farmers in their fields. In addition, advice was given on Good Agricultural Practices (GAP) and product stewardship for the safe use of plant protection products.

Passport: A new “passport” documentation system was introduced to all farmers and stakeholders who were involved in the okra food chain partnership project. Each farmer participating in the project received a passport with his name and photo. The farmers documented all used plant protection products according to the spray schedule in their passports throughout the okra production season.

All inputs were well documented and traceable. Traceability within quality management systems is an increasing demand made by food retailers worldwide and is an important factor in this okra food chain partnership project.



Post-harvest: One of the main requirements of ABRL was the uniform size of the produced okras. Bayer CropScience India gave farmers guidance on the grading to accommodate ABRL standards.





The result

All targets set in the okra food chain partnership project have been well exceeded – for the farmers, food retailer Aditya Birla Retail Ltd., the consumers and Bayer CropScience India.

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| Farmers: | 40% increase in net income per acre of okra |
| Aditya Birla Retail Ltd.: | High-quality okra as per specification and quality requirements |
| Consumers: | Supply with healthy and nutritious okra |
| Bayer CropScience: | Contribution to overall improvement in sustainable okra production and provision of the basis for healthy nutrition |

Through the “5P” production process, Bayer CropScience India has been able to successfully demonstrate that

**Sustainability + quality + traceability =
added value for every partner in the food chain.**





Consumers are becoming increasingly conscious of the need for healthy nutrition. Food chain partnerships help to supply consumers with high-quality fresh produce, which forms the basis of a healthy diet. But such partnerships can only succeed if they involve every player in the food chain – from the farmer and processor to the exporter or importer and retailer. Bayer CropScience has the global experience and cutting-edge expertise to create a successful partnership at every level.

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