



Science For A Better Life

Working together for crop
safety and quality
in Turkish gherkins



food chain partnership



How it all started

With a total area of 10,000 hectares under cultivation, gherkins are one of Turkey's mid-sized crops. Mainly grown in the Afyon and Sındırgı regions, they are planted in April and May, and harvested from July to September. The cucumbers grown for pickling are generally consumed in domestic markets and exported in considerable numbers to the EU, Russia, and the Middle East. Food safety is an issue of increasing importance for cucumbers grown in Turkey – in particular regarding compliance with the Maximum Residue Levels (MRLs) demanded in the EU and other export countries.

Bayer CropScience was already running a successful Food Chain Partnership project in pickled cucumbers with the Swiss-based Reitzel Group in India. In 2011, Zey-Tur-San, a manufacturer of pickled foods, among other products, and

subsidiary of Reitzel, was interested in collaborating with Bayer CropScience in order to meet the requirements of the export market. All partners agreed on a Food Chain Partnership considering the Indian approach.



Who is involved

Zey-Tur-San produced the first pasteurized pickle in Turkey in Bursa in 1985. Five years later Tamer Ersoy and Turgay Tufekcioglu, the company's founders, went into a partnership with the Swiss-based Reitzel Group, which operates in over 20 countries. Now a Reitzel subsidiary, Zey-Tur-San today produces 8,000 metric tons of pickled products and sauces for the national and international markets. Berrak, the brand under which Zey-Tur-San products are marketed, is the leading brand in pickled products in Turkey's food chains. Zey-Tur-San's business is driven by the desire for high-quality produce and crop safety.

More than 300 **contract farmers** are growing cucumbers on roughly 150 ha for Zey-Tur-San. These farmers need to be trained in good agricultural practice, specifically in efficient

crop protection product use, identification and control of pests and diseases, as well as the improvement of the application technique.

Bayer CropScience Turkey has been working with Zey-Tur-San for the past two years in order to provide technical services, joint training programs for their contract farmers, demonstration trials, and joint marketing activities. Bayer CropScience crop experts in the region are in close cooperation with Zey-Tur-San and support their contract farmers to achieve high yielded and safe quality gherkins. Furthermore, the vegetable seed business of Bayer CropScience has been supplying high-quality hybrid seed commercialized under the Nunhems® brand for this project, which specifically fits to the regional conditions.



What we aimed to achieve

The main aim of this Food Chain Partnership project was to be seen in the market as a strong alliance that is capable of delivering high-quality and safe produce and achieving higher yields to improve the participating farmers' incomes. In particular, the project has aimed to ensure safe crops, avoid any MRL exceedances, and ensure punctual delivery of the cucumbers for pickling. As Zey-Tur-San is supplying various multinationals, the sustainable production of cucumbers becomes an important topic within the project.

The integrated solution

In the beginning of this Food Chain Partnership project all parties came together and discussed their aspirations and responsibilities. Besides a clear commitment from all partners in this project, a key topic was to compile an effective spraying plan that would be able to target the trade and residue requirements of the export market. It was agreed to apply this spraying program in three locations of around 50 ha each.

As part of an integrated solution of crop production products, Previvur Energy[®] was applied to tackle root diseases, Luna Experience[®] and Bayfidan[®] to fight powdery mildew, Infinito[®], Antracol Combi[®], Melody Duo[®], and Aliette[®] to combat downy mildew, Oberon[®] to control red mites and white fly, and Confidor[®] to tackle aphides. In addition, residue analyses and quality tests were carried out for the Nunhems seed varieties.

Together with Nunhems, Bayer CropScience specialists trained Zey-Tur-San's agronomists as well as the company's contracted farmers in April 2011. Besides offering stewardship activities and field support, Bayer CropScience implemented the Bayer Sustainability Radar measuring technical service, marketability, produce quality, crop safety, and shelf life. The Bayer Sustainability Radar is a project management tool that captures and measures sustainability indicators with economy, environment, and social focus in order to set up an action plan that aims to optimize the sustainability profile on field over time.



What we achieved

Thanks to the close cooperation, efficient dialogs, and a joint training program, this Food Chain Partnership project has been very successful so far. Zey-Tur-San's clients are satisfied with crop safety standards, the quality of the pickled cucumbers, and the unique variety. Zey-Tur-San has benefited from the earlier established collaboration between Reitzel and Bayer CropScience, providing a best-practice example that met all requirements and a boost to its reputation.

Next steps

This Food Chain Partnership is continuing, and indeed expanding, since Zey-Tur-San has built a new factory to increase its pickling capacity. Although the project will continue to focus mainly on cucumbers for pickling, peppers and tomatoes are also in the pipeline. Moreover, the fact that the Bayer CropScience and Zey-Tur-San partnership is seen as a very strong alliance in Turkey will enable both sides to enjoy significant synergy effects.



left:
Mustafa Dere, Crop Manager vegetables
of Bayer CropScience Turkey

right:
Altuğ Tüfekçioğlu, Project Manager
of Zey-Tur-San

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.



Bayer CropScience

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