



# High-quality grapes and raisins exported worldwide



## Food Safety

Successful residue and quality tests

## Marketability

More export opportunities to the EU

## Sustainability

Fewer plant protection product applications

food chain partnership



# What was the market situation?

With a total acreage of 460,000 hectares, grapes are one of the most important fruits grown in Turkey, which ranks fifth in worldwide grape production but is the most important producer of seedless raisins. Grapes are mainly grown in the Aegean and Marmara Regions of Western Turkey.

Domestic consumption is primarily table grapes and a small amount of raisins, but the main focus of Turkish grape production is on export markets, with 75–80 % of the grape production exported as raisins and 4–5 % as table grapes. This underlines the importance of exports to Turkish grape producers.

Özgür Tarım A.Ş., Turkey's No. 1 raisin exporter, is based near Manisa in the Aegean Region and has 400 contracted grape growers. Özgür Tarım provides the farmers with technical advice and input, such as fertilizer, and then purchases their raisin harvest at the end of the season. Bayer has worked closely with Özgür Tarım from 2015 onwards and launched this Food Chain Partnership at the beginning of the 2017 grape season. Since then, Bayer's field team has been providing the Özgür Tarım field team and grape growers with ongoing support and advice. Özgür Tarım and Bayer are working together to improve raisin production according to the quality standards required to meet international requirements on 2,000 hectares of vineyards.

“Our goal is to increase  
exports to the EU, our  
strategic market.”

Ertan Başlı, Export Manager, Özgür Tarım A.Ş.



TURKEY



## What were the challenges?

The main aim of this Food Chain Partnership is to sustainably produce high-quality grapes and meet the export markets' high standards for food safety and, specifically, residue levels. In this respect, safeguarding traceability through compliance with maximum residue limits (MRLs) was a key consideration. To this end, residue analyses had to be carried out and confirmed by laboratory findings. The climate in the Aegean Region, and particularly around Manisa, is excellent for growing

grapes but also offers favorable conditions for a wide range of pests and diseases, e.g. downy and powdery mildew, gray mold, thrips, grape berry moths, and mealybugs. Controlling these pests and diseases while ensuring compliance with international standards and taking the environment and off-target organisms into consideration was another huge challenge.

“Ensuring compliance with  
minimum residue levels is  
of utmost importance.”

Dr. Mehmet Kaya, Food Chain Manager, Bayer Turkey

## What was the solution?

Training the grape growers about pests and diseases as well as plant protection products and their correct application, and supporting them in applying integrated pest management practices were key preconditions for meeting this Food Chain Partnership's ambitious goals. Bayer organized a number of training sessions in cafés and local meeting rooms, each of which was attended by around 100 farmers. 150 grape growers came to a Bayer field day and numerous face-to-face interviews were also conducted. The training measures focused on instructing the farmers in correctly handling plant protection products, preparing tank mixtures and setting the water's pH value, as well as in using protective equipment. Experts from the Bayer and Özgür Tarım

field teams checked progress in the vineyards, and residue and quality tests were carried out to check whether the quality and MRL requirements were being met.

The plant protection program involved applying Antracol™, Antracol Combi™ and copper to control downy mildew; Luna™ Exp., Bayfidan™, Flint™ and sulfur to tackle powdery mildew; Teldor™ to combat gray mold; Imidacloprid™ to deal with thrips; Indoxacarb™ and Emamectin™ benzoate to control the grape berry moth; and Movento™ to combat the grape mealybug.



“All these efforts have raised our  
raisin production quality  
and safety standards to a  
premium international level.”

Şems Özgür, Operations Director and Board Member, Özgür Tarım A.Ş.



## What did we achieve?

The most important achievement was undoubtedly a virtually problem-free growing season, especially in terms of plant protection practices. Grape growers had been having difficulties controlling the grape mealybug, a relatively new pest in this region. However, the application of Movento in the 2017 season proved a great success. In the past, the growers had fought the mealybug with two applications of plant protection products. In 2017, they only applied Movento once and were entirely satisfied with the results.

All in all, the use of a minimum amount of plant protection products, combined with a minimum number of applications delivered maximum benefits – a solution that was both affordable and ecologically better. Thanks to the implementation of this strategic pest control program, the problems of residues and active substance numbers, which had been an issue in 2015, were resolved, as confirmed by laboratory analyses at the end of the season.



### Challenges:

- Ensuring food safety – safeguarding traceability through MRLs
- Meeting the quality standards of export markets, particularly in the EU
- Improving the growing process



### Solutions:

- Training growers about pests and diseases, plant protection products and their application
- Conducting ongoing dialog and face-to-face meetings with growers
- Correct and controlled application of a wide range of Bayer plant protection products



### Benefits:

- Problem-free season thanks to good results in controlling pests, e.g. grape mealybugs through Movento™
- Reduction in amounts and number of applications – an affordable, eco-friendly solution
- Opportunities to increase exports to strategic markets thanks to healthy high-quality grapes

“Healthy high-quality raisins  
have begun their journey  
from our Turkish vineyards.”

Şems Özgür,  
Operations Director and Board Member,  
Özgür Tarım A.Ş.



# About Food Chain Partnership

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 Crop Science Division has the global experience and cutting-edge expertise to create a successful partnership at every level.



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