



# Managing residue *and* active ingredient issues



Food Safety

Lower residue levels

Marketability

Healthier fruit

Sustainability

Good agricultural practices introduced

food chain partnership



## What was *the market situation?*

Apples are grown on around 180,000 hectares (ha) of land in Turkey and are one of the most important fruit crops. With an average production of nearly 2.5 million tonnes a year, Turkey is the world's third-largest apple producer. Local consumption accounts for almost the entire harvest and only around 4 % is exported. In recent years, however, exports have been increasing, in particular to the Middle East, India, and other Arab countries, with Israel and Russia now the target markets.

The major disease is apple scab, the major pest the codling moth. Insecticides and fungicides are generally applied, with both generics and original products in use. Besides food safety, the main requirement for the growers is to find profitable and sustainable markets.

Located in Isparta in the south of Turkey, Özbay Ltd. Şti. was founded in 2011 as a result of a restructuring process, whereas company itself has been operating in all stages of the fruit-growing sector and servicing both fruit growers and consumers for more than 20 years. Özbay Ltd. Şti. grows apples on 200ha in the provinces of Konya and Isparta provinces and has a 10,000-tonne cold storage facility in Isparta. Özbay Ltd. Şti. grows mature fruit and fruit saplings (apples, pears, etc.), operates cold storage facilities and packaging services, and is known as a leading and productive investor in the region.



TURKEY



### Challenges:

- Managing residues and number of active ingredients
- Lack of good agricultural practices
- Emergence of new pests



### Solutions:

- Preparation of environmentally friendly spraying calendar based on international standards
- BayG.A.P. and IPM training courses
- Monitoring system to determine the right time to apply crop protection products



### Benefits:

- Cost savings
- No crop losses
- Healthy, safe fruit

*Our goal is to encourage growers to use good agricultural practices for producing high-quality, healthy apples and to make our future sustainable.*

**Ramazan Özkaya,** Bayer





## What were *the challenges?*

The chief challenge was to manage residues and reduce the number of active ingredients. These issues were aggravated by the lack of good agricultural practices and application techniques among apple growers. The

emergence of new pests, such as the Mediterranean fruit fly and spotted wing drosophila, added to the complexity of the problem.

## What was *the solution?*

An environmentally friendly spraying calendar based on international standards was prepared to manage residues and the number of active ingredients. Checks were carried out by means of laboratory analyses. Bayer organized BayG.A.P. and IPM training courses to improve the apple growers' knowledge of good agricultural practices and

integrated pest management. Technical support was provided with respect to the new pests and a monitoring system was introduced to help decide the right time to apply crop protection products. Last but not least, some new applications were demonstrated and checked in the field.



*“Our priority is to produce apples to global standards and to be able to export them all over the world.”*

**Hamza Yıldız, Özbay**





## What did *we achieve?*

- Residue and active ingredient issues successfully tackled
- Apple growers' G.A.P. skills improved
- IPM rules applied in the field
- All new pests successfully controlled with no damage to the crop
- Increased applicator performance and effectiveness in the field



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



For more information contact:

**Bayer Türk Kimya Sanayi Ltd. Şti.**  
FSM Mah. Balkan Cad. No: 53  
34770 Umraniye/Istanbul  
Turkey

Phone: +90 216 528 38 64  
Fax: +90 216 645 38 50  
Mobile: +90 533 580 98 70  
Email: mehmet.kaya@bayer.com

**Bayer AG**  
Crop Science Division  
Alfred-Nobel-Str. 50  
40789 Monheim  
Germany

Phone: +49 2173 38 4828  
Email: foodchainpartnership@bayer.com



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**Özby Meyve ve Sebze Pak. Nak.**  
Gıda İnş.San. ve Tic. Ltd. Şti.  
Piri Mehmet Mah.,  
110 Cad. Turan Apt. Kat: 1 No: 8  
32100 Isparta  
Turkey

Phone: +90 246 218 71 02  
Mobile: +90 533 353 56 27  
(Ms. Özge Bayındır, Owner)  
Fax: +90 246 233 05 67  
Email: ozgebyndr@gmail.com

**Mars Fidancılık Tarım Gıda İnşaat**  
Danışmanlık San. Tic. Ltd. Şti.  
Gazi Kemal Mah. 119. Sokak No: 59  
Weglowa 5  
32040 Isparta  
Turkey

Mobile: +90 541 362 62 02  
Email: hamzayildiz@hotmail.com



For further information visit our website:  
<http://www.foodchainpartnership.com/>

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