

**1000 Farmers Endless Prosperity
Progress Report 2019 & 2020***



1000 ÇİFTÇİ
BEREKET



**For A Prosperous
Future...**

** Activities up to September 30, 2020 have been reported.*



1000 ÇİFTÇİ
BEREKET

Contents

16	About the Report
20	1000 Farmers Endless Prosperity Program at a Glance
24	2019-2020 Highlights
28	Road Map
32	Crops in the Program
38	Scope, Objectives and Material Topics of the Program
42	Contribution to Sustainable Development Goals
44	Program's Major Interaction with Sustainable Development Goals
46	Stakeholders and Interaction Areas of the Program
48	Stakeholders Assessments
104	The Sustainability Management Approach of the Program
106	Sustainable and Responsible Business Practices
118	Contribution to Local Community
128	Cargill in the World
129	Our Operation in the World
130	Sustainability at Cargill
134	Cargill in Turkey
135	Our Operations in Turkey
138	2019 Performance Tables
138	Economic Performance of the Program
139	Social Performance of the Program
140	Environmental Performance of the Program

This report was prepared as a draft.

At Cargill, we cooperate with farmers, manufacturers, industrialists, retailers, local authorities and all relevant organizations to meet the world's food needs in a safe, responsible and sustainable way. We develop innovative solutions and support societies' economic growth.

We have been in Turkey since 1960. We know these lands and the people who work on them. We have confidence in Turkey and the Turkish economy. We plan our operations and projects in line with this confidence.

Our “1000 Farmers Endless Prosperity Program” reached the highest number of farmers. It was also the first food and agriculture project to include a Social Return on Investment (SROI) calculation. With this project, we aim to boost the well-being of Turkish farmers by strengthening their livelihoods. At the end of the first year, we reached a yield of up to 21 %, exceeding our target of 12%. We are aware that the welfare of the country improves with the improvement of its farmers' welfare. We believe that this project has a significant place in ensuring the health and happiness of future generations. We present our project to your attention with the hope of leaving a promising future for our children.





We are on the field for a prosperous and profitable future

The 1000 Farmers Endless Prosperity Program has completed its second year. Implemented in 2019, the Program has aimed to support corn farmers in Turkey in sustainable agricultural practices, to increase their profitability, boost agricultural yields and start a social-digital transformation. Farmers from all walks of life participated in the program.

We traveled across all provinces in Turkey to spread development throughout Anatolia

In the Program's first year, covering the production season of 2019, a total of 1,072 farmers engaged in corn farming in Mersin, Adana, Konya, Karaman, Manisa and Izmir participated in the 1000 Farmers Endless Prosperity program.



1000 ÇİFTÇİ
BEREKET





We added new provinces to the Program to increase prosperity

In the second year of the Program, covering the 2020 production season, 1,175 additional farmers engaged in corn and sunflower agriculture in 12 provinces, including Mersin, Adana, Konya, Karaman, Ankara, Eskişehir, Balıkesir, Manisa, İzmir, Edirne, Kırklareli and Tekirdağ, participated in the Program.



1000 ÇİFTÇİ
BEREKET









We created projects that transform technology into prosperity

Farmers who took advantage of services offered under the Program and fully implemented the suggestions, achieved a productivity increase of up to 21%. We offered technical support in many areas including irrigation, fertilization, and satellite-based field health monitoring.

We expanded the scope of the Program to help more farmers

Sunflower producers were included in the Program in its second year. As part of the Program, agricultural irrigation sensor stations were established in seven provinces, so that 20 Leader Farmers involved in the Program could monitor their fields. Farmers were able to track air and soil temperature and humidity using instant data from sensors. They were able to benefit from field-specific irrigation and pest control tips.



1000 ÇİFTÇİ
BEREKET







We invested in a sustainable future.

The social, environmental and economic impacts of the Program were transformed into financial value via assessing the “**Social Return on Investment (SROI).**”

Every TL 1 invested in the 1000 Farmers Endless Prosperity Program provided a social return of **TL 2.53.**

About the Report

We prioritized our stakeholders' expectations and sustainability suggestions while shaping the Report in line with the 1000 Farmers Endless Prosperity Program targets.



Purpose

We disclose the sustainability performance and impact of the **1000 Farmers Endless Prosperity Program** to the attention of all our stakeholders through the **1000 Farmers Endless Prosperity Program Progress Report**. The Program is implemented in accordance with our corporate social responsibility approach.



Scope

In this report, we provide our studies in supporting the development, profitability, and productivity of 1,072 corn farmers in the Mersin, Adana, Konya, Karaman, Manisa, and İzmir provinces in 2019, and multi-stakeholder assessments on the impact and performance of these studies in the economic, social and environmental fields.

The primary purpose of supporting farmers, who are the first link of the value chain in production, is that farmer welfare is a prerequisite for the country's welfare. For this reason, we believe as a company that the most meaningful way to share the added value we create in the country with our farmers is to be with our farmers and to introduce them to modern agricultural practices and technology as much as possible. After reviewing the report, the reader can see that our social responsibility program has become one of the most important steps taken in smart agriculture in our country. Our farmers, who are central to this program's scope, have now taken sustainable steps in terms of less water, zero waste, and efficiency. The Report provides our perspective on the Program's 2020 targets and the approach to achieving Sustainable Development Goals, with the subjects of sunflower cultivation and zero waste management in the field, which we included in the Program's scope in 2020.



Analyses

While determining the material topics of the 1000 Farmers Endless Prosperity Program, global and local trends in the agriculture and food sectors were determined through guiding documents, reviews and works in the fields of both sustainability and agriculture like the World Economic Forum Global Risks Report¹, SASB Sustainability Industry Classification System - Agricultural Products Sustainability Accounting Standards², the European Federation of Financial Analysts Community - ESG threads Key Performance Indicators Taxonomy Directory³, Turkey Presidency of the Republic of Strategy and Budget Directorate Eleventh Development Plan for Agricultural Targets

Rural Development Plan, and the Turkey Agricultural Policy and Evaluation Report⁴. Following this preliminary study, we took the views of the stakeholders with whom the Program Target Communities and Program Partners were involved, evaluated the issues related to the Program objectives, and determined the Program's priority topics. With the Program stakeholder assessments, these priority topics were scored according to their impact levels, considering the GRI (Global Reporting Initiative) Standards materiality methodology, and the medium and high priority issues of the Program were created to reflect the Program's approach and future goals.



Reporting Framework

We manage our sustainability approach based on our interaction with all our stakeholders to maintain the success of the 1000 Farmers Endless Prosperity Program. We formed the framework of our Report based on sustainability issues as a priority, in line with our Program's objectives and the evaluations of our important stakeholders, representing their views and expectations in the upcoming period.



Methodology

The primary stakeholder groups of the Program consist of our farmers as our internal stakeholders, agricultural consultants, and social impact and reporting consultants, as well as our associations and trainers providing training within the scope of the Program and our association, and academicians who provide zero waste management support in the field as our external stakeholders; non-governmental organizations, international organizations, public institutions, and associations. Within the scope of the Program, we consulted and interacted with our corn and sunflower farmers representing different geographical regions, our other internal stakeholders who provide consultancy and training support, and external stakeholders who relate to our activities.



Feedback

We aim for this report to be among the communication tools that allow us to share our activities within the scope of the Program, in line with our sustainability understanding, and that will provide for the collection of stakeholder feedback. Questions, feedback, comments and suggestions regarding the report, which is prepared in Turkish and English, can be submitted to bilgi@1000ciftci1000bereket.com

¹ <https://www.weforum.org/reports/the-global-risks-report-2020>

² https://www.sasb.org/wp-content/uploads/2015/01/CN0101_Agricultural-Products_PCP1.pdf

³ https://effas.net/pdf/cesg/KPIs_for_ESG_3_0_Final.pdf

⁴ <http://www.sbb.gov.tr/wp-content/uploads/2020/04/KirsalkalkinmaOzellhtisasKomisyonuRaporu.pdf>



*“I attended online training on
waste and I was very satisfied.”*

Umut Ayberk Akbay
*1000 Farmers Endless Prosperity Program Corn Farmer, İzmir/Ödemiş**

** See page 53 for detailed information.*



1000 Farmers Endless Prosperity Program at a Glance

In 2020, we diversified the scope of the Program with the Zero Waste in the Field and Digital Agriculture Market and expanded the impact area.

We were with farmers even during the COVID-19 pandemic. We continued to support farmers in a time of urgent need, providing hygiene packages.

With the 1000 Farmers Endless Prosperity Program, we support farmers in leading our country's agricultural regions to create social and digital transformation. This emerging global trend encourages them to develop continuously. We direct them towards utilizing the advantages of science and technology in agriculture, and we increase their personal and professional knowledge with various training programs. We aim to increase their productivity, profitability, and welfare by supporting their business practices with data-based applications.

In the Program, which began in the 2019 production season, we recorded corn farmers' agricultural activities in the first year. We focused on raising awareness and knowledge for 1,072 farmers in six provinces on financial literacy, licensed warehousing, agricultural techniques, digital agriculture markets, and occupational health and safety in the field. We carried out various training sessions and consultancy services. We established communication channels through which farmers can address their technical questions and problems 24/7 and provided free access to mobile



The 1000 Farmers Endless Prosperity Program was deemed worthy of the “The Ones Bring Agriculture to the Future” award at the Summit Conference of ‘The Future of Agriculture and Forestry’ organized by the Turkuvaz Media Group under the auspices of the Ministry of Agriculture and Forestry.



applications where they can instantly monitor their fields. We achieved tremendous results in collaboration with our esteemed stakeholders, Doktor, the Financial Literacy and Inclusion Association (FODER), the Turkey Mercantile Exchange (TMEX), the Republic of Turkey Ministry of Family, Labor and Social Services, and academicians.

Thanks to the activities we carried out in the first year, we recorded a significant increase in farmers' productivity. We have ensured that our farmers, to whom we offer specific irrigation techniques, scientific fertilization programs, and spraying recommendations, save money by improving resource use efficiency and effectiveness. Accordingly, farmers who utilized all the applications offered and fully implemented the recommendations reached a 21% yield increase, exceeding our target of 12%. In the same year, we conducted a Social

Return on Investment (SROI) study to measure the Program's social impact. According to this study, we calculated that each TL 1 investment we make to the Program has a social return of TL 2.53. This social impact measurement study was performed in cooperation with the independent audit and consulting company EY Turkey (Ernst & Young); the Program is the first to include an SROI study for the agriculture and food sector in Turkey.

In the 2020 production season, we expanded the scope of the Program and included sunflower farmers. We continued our activities in 12 provinces with 266 sunflower farmers and 909 corn farmers. We expanded our area of impact by diversifying the Program's scope with Zero Waste Management in the field and Digital Agriculture Market (DITAP). Within the Zero Waste in Field Management Project, we

organized guiding activities for farmers in returning agricultural wastes to recycling facilities. For the Zero Waste in Field Management Project, we selected Konya and Karaman as the pilot regions for the first year and started working with 544 corn farmers and 99 sunflower farmers in the region. We have increased our stakeholder engagement by carrying out this work in cooperation with İTÜNOVA Technology Transfer Office and the Turkish Plastics Manufacturers Research Development & Educational Foundation (PAGEV). With the Program, we sustained our economic impact with raw material savings and resource efficiency, our social impact with farmer training and digital agriculture practices, and our environmental impact with our contribution to protecting soil quality and biodiversity in a positive direction.

1000 Farmers Endless Prosperity Program at a Glance

We started conducting trainings through digital platforms with the theme “There is Life at Home,” We met with farmers through live broadcasts and ensured their participation in these meetings.

During the COVID-19 pandemic in 2020, we did not ignore farmers, who continued to produce to meet people's food needs. We prepared health and hygiene packages for farmers and their families and delivered them to their homes. During this period, we maintained the Program's momentum. We started conducting training through digital platforms with the theme “There is Life at Home.” We met with farmers through live broadcasts, and we ensured their interactive participation in these meetings. We visited farmers in their fields, following social distancing measures. During field visits, we received feedback from farmers on the practices within the scope of the Program. In line with our management approach of listening, understanding and responding to their demands, we evaluate their feedback and develop the Program in every aspect that will increase their satisfaction, performance, and efficiency.



The trainings we provide within the scope of the Program were conducted through digital platforms. Interactive online training sessions with the theme “There is Life at Home” were held during pre-planting and pre-harvest periods.

We are happy to carry out the most extensive social responsibility program supporting farmers in Turkey with regular training, digital application support, and interactive communication. Our Program won the Grand Prize on Sustainable Development Goals (SDGs) at the 11th CSR Summit, organized by the Corporate Social Responsibility Association Turkey in 2019. In 2020, we were deemed worthy of the “The Ones Bring Agriculture to the Future” award at the Summit Conference of “The Future of Agriculture and Forestry,” held under the auspices of the Ministry of Agriculture and Forestry; and the “Success Award” in the field of “Social Responsibility and Sustainability,” at the Felis Awards.

In supporting the Sustainable Development Goals that Cargill Global committed to in 2015, we fulfill our responsibility for the protection of our planet, the enrichment of our communities, and their access to sustainable food. In 2017, we set our goal of “training support for 10 million farmers by 2030” at Cargill Global. In this direction, we have taken significant steps to advance sustainable agriculture by reaching 3.2 million farmers as of the end of the 2020 financial year.

As the 1000 Farmers Endless Prosperity Program, in 2021, we will highlight an innovative, environmentally friendly, and highly productive business approach, and we will continue to plan our activities in line with the Sustainable Development Goals. We will steadily continue to create added value by supporting farmer development, increasing productivity and profitability, and taking advantage of agriculture’s digital transformation. We will continue to realize our program’s environmental, social, and economic impact on a larger scale and support local development by including canola farmers in 2021.

With this report, we present the sustainability performance of our activities that create added value in the development of the local community and sustainable agriculture within the scope of the 1000 Farmers Endless Prosperity Program for our esteemed stakeholders’ information. We hope that you read the 1000 Farmers Endless Prosperity Program 2019 & 2020 Progress Report with appreciation and would like to thank you on behalf of the 1000 Farmers Endless Prosperity Program, which will continue on its path with the support of our valued stakeholders.



2019-2020 Highlights

2020 Season*



117
Adana
Mersin

716
Konya
Karaman
Ankara
Eskişehir

189
Balıkesir
İzmir
Manisa

153
Edirne
Kırklareli
Tekirdağ

1,175
farmers

909

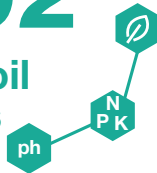
266

8,800
hectares

63k

25k

1,002
digital soil
analyses



20
agricultural
sensor
stations



1,030
under crop
health
monitoring



hectares

On digital
channels

670
minutes

of online
training



- Digital Agricultural Technologies
- Financial Literacy
- Agricultural Technical Information
- Zero Waste in the Field
- Digital Agriculture Market (DITAP)

15%

yield
increase
target

with digital
agriculture
applications

The first

CSR program calculated SROI in
agriculture and food industry in Turkey



₺1 = ₺2.53

Regular
consultancy to the
greatest number
of farmers



2019 Season



6 cities

469 Adana, Mersin
498 Konya, Karaman
105 İzmir, Manisa



1,072
farmers



26,500
hectares

1,313

digital
soil
analyses



10

agricultural
sensor
stations



300 hectares
under crop
health
monitoring



16 farmer
meetings

716 participants



Digital Agricultural Technologies
Financial Literacy

Agricultural Technical Information
Occupational Health and Safety in Agriculture
Electronic Warehouse Receipt (EWR)
and the licensed warehousing system

up to **%21** ↑ ↑ ↑ ↑
yield increase



Firsts

→ The first agricultural program
to calculate SROI in the
agricultural sector in Turkey

₺1 = ₺2.53 ↑



→ Regular consultancy to the
greatest number of farmers



→ **Grand Prize**
on Sustainable Development
Goals (SDG) Award

2019-2020 Highlights

Highlights

We reached **1,981 corn and 266 sunflower farmers in 12**

provinces with the 1000 Farmers Endless Prosperity Program. We recorded a total of **35,288** hectares of field.

We organized **17 farmers' meetings in 6 provinces.**

We conducted a total of **227 hours of in-class and online training** to support the productivity and well-being of our farmers by increasing their knowledge.

Within the scope of the Program, we provided

- Electronic Warehouse Receipt (EWR) and licensed warehousing training to **598 farmers,**

- zero waste in the field training to **448 farmers,**
- profit and loss statement training to **448 farmers,**
- occupational health and safety in the field training to **402 farmers,**
- financial literacy training to **314 farmers,**
- digital agriculture market (DITAP) training to **238 farmers,**
- digital soil analysis training to **210 farmers,**
- satellite field health control training to **20 leader farmers.**

We have conducted **2,333** soil analyses.

We have commissioned the 1000 Farmers Endless Prosperity Technical Support Line to provide 24/7 support. Technical Support Line calls reached a total of **40 thousand minutes.**

We monitored **the condition of the field health of 1,330 hectares of land via satellite.**

With the Agricultural Sensor Station application, we were able to provide **64,584 hours of data flow** from the sensor stations and received **8,353 satellite images** via the crop health monitoring application from the satellite.

We reached a yield of up to 21% and achieved 240% higher profitability by exceeding our target of 12% with the year-end yield increase as a result of farmers who adopted all the suggested techniques, utilized the correct irrigation and scientific fertilization program, crop health control and technical support line services, and implemented the suggestions completely.

We calculated the social, environmental, and economic impact of the Program and the social return created by using the Social Return on Investment (SROI) method and reached the conclusion that

every TL 1 investment made in the Program has a social return of TL 2.53.

We sent **58,373 SMS with information, precautions and suggestions to farmers** about cultivation, fertilization, combating weeds and disease, spraying, irrigation, efficient use of agricultural machinery, seasonal product development, storage examples.

We won **the Grand Prize on Sustainable Development Goals (SDG) at the 11th CSR Summit** organized by the Corporate Social Responsibility Association of Turkey.

The Summit Conference Of **“The Future Of Agriculture And Forestry,”** held under the auspices of the Ministry of Agriculture and Forestry, was held in İzmir in October. The 1000 Farmers Endless Prosperity Program was recognized with the **“The Ones Bring Agriculture to the Future”** award.

We were deemed worthy of **the “Success Award” in the field of “Social Responsibility and Sustainability”** at the Felis Awards.

Road Map



1- Farmers' Registration in the Program

Farmers registered in the Program by calling 444 51 75.



2- Digital Soil Analysis

After each farmer registered, expert agronomists went to the farmers' fields, performed digital soil analysis and suggested fertilization specific to the planned crop.



3- Pre-Planting Farmer Meetings

Before planting, in-class or online meetings are held with farmers and training is provided on how to keep the farm budget, along with potential problems and solutions specific to the planned crop.



4- Pre-Harvest Farmers Meetings

In pre-harvest, in-class or online meetings, farmers meet and train on specialized topics such as harvest time decisions, storage and sales strategies, and evaluations of the season.



5- The 1000 Farmers Endless Prosperity Abundance Program Harvest Festival

Press members are also invited to the harvest area and the season is evaluated together with the farmers.

Agricultural Trainings

Digital Soil Analysis

Fertilization and
Irrigation

Occupational Health
and Safety in the Field

Zero Waste in the Field

Crop Health Monitoring
Application Training

Aquaculture Information

Financial Trainings

Digital Agriculture
Market (DITAP)

Financial Literacy and
Farm Budget

Post-Harvest Storage
and Sales Organization

Creating Profit and Loss
Statements

Electronic Warehouse
Receipt and Licensed
Warehousing





“The benefit of the Program was great, with both fertilizer savings and increased yields.”

Ceylan Karaoğlu
*1000 Farmers Endless Prosperity Program Corn Farmer, İzmir/Tire**

** See page 46 for detailed information.*

Crops in the Program

In parallel with the increasing production of corn in recent years, its share in biofuel-bioethanol production is rising with its volume in the feed, oil and starch sector.

Corn

Corn is used as human food, animal feed and as an industrial raw material, and its stems and leaves are also used as animal feed. In addition to these consumption areas, corn is also consumed in snacks. In parallel with the increasing production amount of corn in recent years, its use in the feed, oil and sweetener sector and in biofuel-bioethanol production has also increased. Corn, which has the largest cultivation area after wheat and barley, is produced as the main product and a byproduct in our country.

Corn, which is a grain group product, has significant importance because it has many uses, such as food, animal feed, biodiesel, and as a raw material in other industries.

The most important countries in corn production and cultivation are the USA, China, and Brazil: the USA with a share of 31.3%, China with a share of 23.5%, and Brazil with a share of 9.1% in lead production. The largest exporters of approximately 167 million tons of corn produced in 2019 are the

USA, South American countries, and the Black Sea Basin countries, in that order. In 2019, 62% of the corn produced in the world was consumed in the feed industry⁵.

In our country, climate conditions and soil structure are suitable for corn cultivation. Corn is the most widely grown grain product after wheat and barley, as it is less selective in terms of soil compared to other agricultural products and requires less manpower. Turkey meets 5.5-6.0 million tons out of the 8.0-9.0 million tons of annual need for grain corn, from domestic production and from the Central Anatolian, Çukurova, GAP and Aegean regions. The remaining 2.5-3.0 million tons of grain corn is mainly supplied from our neighbors in the Black Sea, Romania, Ukraine, and Russia. According to the Turkish Grain Board (TMO), corn imports were around 2.9 million tons in 2019.

Corn can be grown twice in a season, given the climatic conditions in Turkey. Corn cultivation as the main crop in Turkey starts in mid-February in Çukurova and is completed

at the end of March, while in other provinces it lasts until the beginning of April and possibly until the last week of May. Corn planted after the wheat and/or barley harvest is considered a secondary crop. Corn cultivation as a secondary crop is carried out in June-July. The main crop corn harvest starts in Çukurova around mid-August, and in the third week of September in the Aegean. In the Central Anatolia region and GAP, corn harvesting starts in the first week of October and continues until the beginning of November.

Despite the importance of corn in Turkey, a decline in corn cultivation due to existing negative factors spotlights our focus on the need to improve these aspects. In this respect, we are working together with 909 corn farmers from the Mediterranean Region, Central Anatolia Region, Marmara Region and Aegean Region to increase production efficiency with sustainable corn farming practices within the scope of the 1000 Farmers Endless Prosperity Program. We support sustainability studies on soil health, biodiversity, water consumption and climate change in corn production, including farmer welfare and working conditions.

⁵ Agricultural Economy and Policy Development Institute, January 2020, Agricultural Corn Products Market Report



Manisa Sunflower Harvest Visit

Crops in the Program

Due to the soil structure and its high climate adaptation, the sunflower is highly preferred in Turkey and our country has large acreage and production.

Sunflower

Sunflower is cultivated for two types of use: oil and as snacks. However, there are also types used as ornamental plants and as flowers in gardens. The sunflower takes the biggest share in vegetable oil production in our country at 50% and is the leading oil crop.

Oil seeds, which are rising in consumption worldwide, are used as raw material or additives in industries such as feed and biodiesel, in addition to oil production; while wastes generated by the processing of these crops are used as raw materials or by-products in feed production. Approximately 90% of the sunflower seeds produced are processed for oil, while 10% are consumed as snacks.

According to data from the USDA⁶, 26.3 million hectares of sunflower were planted in 2019. The most important countries in sunflower production and cultivation are Russia, Ukraine, the European Union, Argentina, and China. Ukraine has a share of 29% and Russia has a share of 27.1% in production. The



largest exporters of sunflower produced in 2019 are Moldova, the European Union, China, and Kazakhstan, respectively⁷.

Although sunflower is an important oil plant in terms of vegetable crude oil production due to its high oil content (22-50%), sunflower oil is also known as one of the oils with the highest nutritional value. While 11% of the world's production of crude vegetable oil is met from sunflower, this rate reaches 50% in Turkey.

Due to the soil structure and high climate adaptation of Turkey, sunflower is highly preferred in our country, which has large acreage and production. In the 2018/2019 season, sunflower production in Turkey was 2.1 million tons. Sunflower farming for oil is

generally carried out in the Thrace-Marmara Region, and the Black Sea and Central Anatolia Regions, while sunflower is cultivated as a snack in the Aegean Region and the Mediterranean Region. In recent years, especially in the USA, France and Spain, sunflower cultivation for high oleic oil, which is more suitable and healthier for frying use and for the biodiesel sector, has become widespread.

By including high oleic sunflower (HOSA) agriculture, which has become widespread in Turkey in the last period, in the scope of the 1000 Farmers Endless Prosperity Program, we are expanding our social, environmental and economic impact area with 266 sunflower farmers from Thrace, South Marmara and the Central Anatolia Region.

⁶ USDA: United States Department of Agriculture

⁷ Agricultural Economy and Policy Development Institute, January 2020, Agricultural Sunflower Products Market Report

The oil obtained from canola seeds is used in biodiesel and bioethanol production. Canola presents an important alternative product and potential for farmers.

Canola

As a source of vegetable oil in Turkey, canola ranks third among all oil seed plants, which include sunflower, cotton, canola, peanut and soy.

Vegetable oil obtained from canola varieties is close to the quality of olive and peanut oils in terms of nutritional value and content and, in a significant part of the world, canola production is primarily used for human nutrition. The oil obtained from canola seeds is an important alternative source of production for farmers as it is used in the production of cooking oil, as well as biodiesel and bioethanol production.



*“If agrochemicals are used properly,
and according to the appropriate
recommendations, plastic waste
generation decreases, and the soil,
nature, and people are better off.”*

Prof. Dr. Filiz Karaosmanoğlu

*Faculty Member of Chemical Engineering Department at Istanbul
Technical University and Supervisor of Cargill- İTÜNOVA
Technology Transfer Office Project*

** See page 76 for detailed information.*



Scope, Objectives and Material Topics of the Program

The 1000 Farmers Endless Prosperity Program focuses on increasing the productivity and income of farmers by informing them on sustainable and digital farming practices. The Program is carried out with the aim of increasing the welfare of the country and contributing to the protection of natural resources.

With the 1000 Farmers Endless Prosperity Program, which supports social and digital transformation in the field, we increase the awareness of corn and sunflower farmers about science-based farming methods. In this respect, we aim to raise farmers' profitability by reducing their input costs and thus improving their welfare level with the training and practices we provide to them.

For farmers who apply all the tools and methods proposed as the main goal of the Program: We have targeted:

12% yield increase for corn farmers in 2019



15% yield increase for corn farmers in 2020



15% yield increase for corn farmers in 2021



5% yield increase for sunflower farmers in 2020



12.5% yield increase for sunflower farmers in 2021



12.5% yield increase for canola farmers in 2021



* The above-mentioned yield increase targets are the planned increase targets to be achieved by the farmers participating in the Program compared to the regional average. It is not a target of an increase in yield calculated over the previous year.



With the 1000 Farmers Endless Prosperity Program, we aim to ensure that farmers prefer the optimal agricultural practices, spread the use of digital technologies in agricultural activities, and raise the level of financial literacy and awareness on occupational health and safety in the field among farmers.

We provide technical and managerial consultancy services, especially on agricultural issues, by communicating with farmers one-on-one with the help of agronomists and subject experts. Within the scope of the Program, we consider farmers' meetings, field visits, digital communication channels and interactive live broadcasts and training that will contribute to achievement as the main

goal of the Program. We raise awareness by organizing training on financial literacy, agricultural techniques, digital agriculture practices, licensed warehousing, Electronic Warehouse Receipt (EWR), occupational health and safety, Zero Waste in the Field and Digital Agriculture Market (DITAP).

We reached a 21% yield increase, exceeding our target of 12%, for the farmers who benefited from all the digital agriculture applications offered within the Program's scope and fully implemented the recommendations they received. In the second year of the Program, we are expanding our scope of application and increasing the crop health monitoring from 302.4 hectares to 1,029.4 hectares, and the number of Agricultural Sensor Stations from 10 to 20.

We improve our sustainability management, which prioritizes stakeholder engagement, including the wide value chain we have. We mapped the stakeholders as the Program focus group and those stakeholders directly and indirectly affected by the Program activities. We established follow-up communications with stakeholder groups with whom we interacted, in order to get their views on the Program. Considering the effects of stakeholders on decision-making processes and their roles and competencies in the Program, we determined the priority issues of the Program in line with the GRI Standards.

Scope, Objectives and Material Topics of the Program

Material Topics of the 1000 Farmers Endless Prosperity Program

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by all United Nations Member States in 2015 as a universal call to action to end poverty, protect the planet and ensure

that all people enjoy peace and prosperity by 2030.

The Sustainable Development Goals, consisting of 17 goals, include areas such as climate change, economic inequality,

innovation, sustainable consumption, peace and justice. The goals are linked; the key to success in a goal is to address issues that have common aspects.

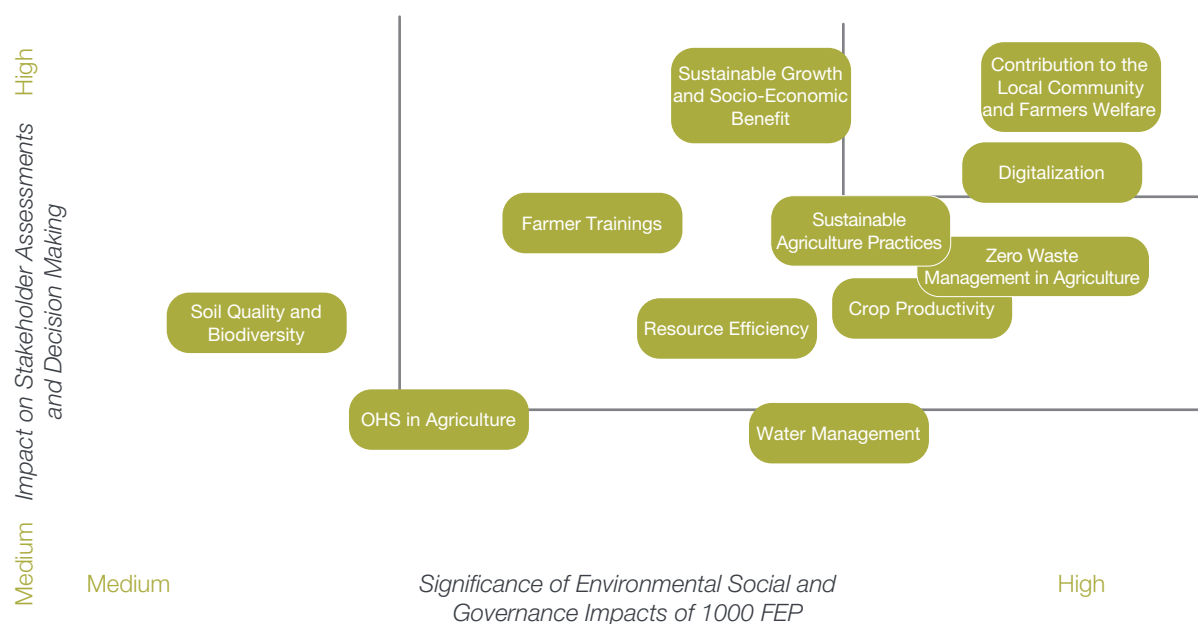
United Nations Sustainable Development Goals*







































	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY
1. Contribution to the Local Community and Farmer Welfare							
2. Digitalization							
3. Sustainable Growth and Socio-Economic Benefit							
4. Sustainable Agriculture Practices							
5. Zero Waste Management in the Field							
6. Farmer training							
7. Resource Efficiency							
8. Water Management							
9. Crop Productivity							
10. Soil Quality and Biodiversity							
11. OHS in the Field							

* <https://sdgs.un.org/goals>

Material Topics of the 1000 FEP



Contribution to Sustainable Development Goals

We support the development and welfare of local society with our social responsibility efforts as we make investments to improve our operations in the regions where we operate.

We continue to take the Sustainable Development Goals, established by the United Nations in 2015, as a guide in order to find solutions to global problems in our sustainability journey. We utilize our global reach and experience in the agriculture, food and nutrition sectors to contribute to the Sustainable Development Goals. In this regard, Cargill Global has committed to supporting the Sustainable Development Goals. With our efforts to

protect our planet, to enrich our communities and access sustainable food, we fulfill our responsibility in No Poverty, Zero Hunger, Good Health and Well-Being, Quality Education, Clean Water and Sanitation, Decent Work and Economic Growth, Reduced Inequalities, Responsible Consumption and Production, Climate Action, Life on Land, Partnerships to achieve the Goal of Global Goals.

We believe that the social welfare and development of society, which has a primary role for inclusive sustainable development, is one of the focal points. In this context, we support the development and welfare of the local society with our social responsibility efforts, as we make investments to improve our operations in the regions where we operate.

To access Cargill Global's Sustainability Development Goals, please click here:

<https://www.cargill.com/sustainability/sustainable-development-goals>



Tekirdağ Sunflower Harvest Visit

Program's Major Interaction with Sustainable Development Goals

Within the scope of the 1000 Farmers Endless Prosperity Program started as a part of our social responsibility program, we play an important role in Turkey's economic development aside from its social development. With the Program, we contribute to 11 Sustainable Development Goals and create added value in farmers' development and local improvement.



1000 Farmers Endless Prosperity Program Main Outcomes

SDGs

Improving farmers' knowledge level on financial matters through **financial literacy training**



Providing training on **Electronic Warehouse Receipt (EWR) and licensed warehousing system**, ensuring an increase in farmers' profitability via methods on appropriate timing and correct pricing

Increasing farmers' profitability and welfare by improving their agricultural knowledge and skills for **optimum use of agricultural products**



Improving resource efficiency by tracking raw material usage



Monitoring soil quality levels and protecting biodiversity with **digital soil analyses**

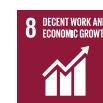
Raising awareness and improving knowledge with **training on financial literacy, advanced agricultural techniques, digital agriculture practices, and occupational health and safety** in the field by recording the agricultural activities of farmers participating in the Program



Correct irrigation and scientific fertilization utilization program, crop health monitoring, and technical support line services provided to farmers within the scope of the Program and the implementation of provided recommendations



Increasing farmers' profitability and supporting rural development with **training on financial literacy, and Electronic Warehouse Receipt (EWR) and licensed warehousing system**



Supporting farmer development with **training, access to digital tools and agricultural consultancy services**



Improving economic, environmental, and social performance by providing **correct irrigation, scientific fertilization program, crop health monitoring, technical support line and training of zero-waste management in the field** services to farmers registered in the Program



Contributing to resource efficiency by optimizing the amount of water, nutrients and pesticides needed by the crop and preventing biological pollution and, therefore, possible damage to the ecosystem, via the application of correct agricultural techniques by farmers through **access to innovative digital tools offered in the Program, agricultural technical support and consultancy services**



Providing a positive impact on the ecosystem via **correct irrigation, scientific fertilization program, crop health monitoring, technical support line and training of zero-waste management in the field** services to farmers



Providing multi-stakeholder cooperation in all applications and activities within the scope of the Program



Stakeholders and Interaction Areas of the Program



In the 1000 Farmers Endless Prosperity Program's scope, we have improved agricultural techniques, created new models and processes, and provided support to farmers in collaboration with the agricultural technologies company Doktor.

We have positioned 10 Leader Farmers, selected from among the participating corn farmers, as their respective regions' pioneers of the Program so that they can apply and circulate their acquired knowledge and skills even after the Program concludes. Chosen from among the farmers who are active in their region of operation and open to innovation, Leader Farmers will help us to sustain the impact created by the Program.

In the 1000 Farmers Endless Prosperity Program's scope, we have improved agricultural techniques, created new models and processes, and provided support to farmers in collaboration with the agricultural technologies company Doktor. We held financial literacy training, which guides farmers in managing their fields like businesses, in collaboration with the Financial Literacy and Inclusion Association (FODER). For the measuring and reporting of goals reached, and the impact created by the Program, we were assisted by the EY Turkey (Ernst & Young) Climate Change and Sustainability Services Team.

In the occupational health and safety (OHS) training within the Program's scope, we received support from the OHS experts of the Republic of Turkey Ministry of Family, Labor and Social Services, and academicians. "The Zero Waste Management in the Field" training are provided by Prof. Filiz Karaosmanoğlu, the supervisor of the Cargill-İTÜNOVA Technology Transfer Office Project, which is carried out in cooperation with Turkish Plastics Manufacturers Research Development & Educational Foundation (PAGEV). We conducted the Electronic Warehouse Receipt (EWR) and the licensed warehousing system training with the participation of instructors from the Turkey Mercantile Exchange.

To access Cargill Global's sustainability stakeholders, please click [here](https://www.cargill.com/sustainability/partners):

<https://www.cargill.com/sustainability/partners>

1000 Farmers Endless Prosperity Program Stakeholder Groups



1. Focus Group of the Program

- Sunflower Farmers
- Corn Farmers
- Canola Farmers

2. Public Institutions and Organizations

- The Republic of Turkey Ministry of Family, Labor and Social Services – Directorate General of Occupational Health and Safety
- The Republic of Turkey Ministry of Agriculture and Forestry – Directorate General of Agricultural Enterprises
- Other Public Institutions and Organizations

3. Associations and Academy

- Academicians
- American Business Forum In Turkey (AmCham/ABFT)
- Business Council for Sustainable Development Turkey (BCSD Turkey)
- Koç University – Social Impact Forum (KUSIF)
- Starch Industrialists Association (NISAD)
- Turkish Industry & Business Association (TUSIAD)
- Agricultural Credit Cooperatives of Turkey
- International Investors Association (YASED)
- Financial Institutions
- Media Organizations
- Civil Society Organizations
- International Organizations

4. Program Partner

- İTÜNOVA Technology Transfer Office
- Financial Literacy and Inclusion Association (FODER)
- Turkish Plastics Manufacturers Research Development & Educational Foundation (PAGEV)
- Turkey Mercantile Exchange (TMEX)
- Turkcell
- EY Turkey
- Doktor
- Cargill Turkey

Focus Group of the Program



Corn Farmers

“THE 1000 FARMERS ENDLESS PROSPERITY PROGRAM MADE US REALIZE THAT THERE IS A LOT WE DON’T KNOW ABOUT CORN. THE PROGRAM USED A MORE PRECISE MEASUREMENT APPROACH TO AGRICULTURE.”



Ceylan Karaoğlu

1000 Farmers Endless Prosperity Program Corn Farmer, İzmir/Tire

“The 1000 Farmers Endless Prosperity Program made us realize that there is a lot we don’t know about corn. The program used a more precise measurement approach to agriculture. Thanks to the digital soil analyzer, we had the right information on fertilization. We updated the fertilizer program with the agronomists by using the results from the soil analysis and then decided to implement

it. As a result, I used 100 kg/ha less fertilizer for each type of fertilizer than we had used in previous years. The benefit of the Program was great, with both fertilizer savings and increased yields. I saved money by switching to the drip irrigation system. I am one of the lucky farmers who use the “Agricultural Sensor Station” application. I keep track of when I should give water and irrigate.

Since it warns us against the possibility of disease, it allows us to control it without going to the field. This Program provides equal benefits in all areas such as informed fertilization, digitalization, and ease of access to agronomists.”



Corn Farmers

“WE HAD HESITATIONS ABOUT THE PRICES OF THE DIGITAL PRODUCTS. WITHIN THE SCOPE OF THE PROGRAM, WE GAINED EXPERIENCE IN DIGITALIZATION BY USING DIGITAL AGRICULTURE PRACTICES FOR FREE. WE WERE ABLE TO ALWAYS CONTACT KNOWLEDGEABLE PEOPLE ABOUT THE USE OF THE DEVICES. WE EVALUATED WITH AGRONOMISTS IN TERMS OF AGRICULTURAL KNOWLEDGE, WE WERE INFORMED WITH FIELD CONTROLS.”

Âdem Ocak

1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Cumra

“The 1000 Farmers Endless Prosperity Program has benefited us on the use of digital products. I am one of the farmers who used the ‘Crop Health Monitoring’ and ‘Agricultural Sensor Station’ applications. We had hesitations about the prices of the digital products. Within the scope of the Program, we gained experience in digitalization by using digital agriculture practices for free. We were able to always contact knowledgeable people about the

use of the devices. We evaluated with agronomists in terms of agricultural knowledge, we were informed with field controls. We had the opportunity to meet farmers in different provinces and also the opportunity to compare agricultural practices in different provinces. According to our soil analysis results, we became conscious about organic fertilization and started using organic fertilizers. This Program taught me that what I say in an environment where I

have been a farmer since childhood should fit the logic. As part of the Program, I want to follow more of my fields through satellite. In addition, I participated in an online waste training in 2020. As a result of the training, I learned that plastic waste causes environmental pollution. In today’s conditions. If other trainings on reducing waste are given, I would like to attend. I would like to work on plastic waste recycling,”

Focus Group of the Program



Corn Farmers

“WITH SATELLITE FIELD MONITORING, IF THERE IS A COLOR DIFFERENCE IN THE FIELD, WE CAN EASILY DETECT IT AND GO TO OUR FIELD TO CHECK IF THERE ARE PROBLEMS IN THOSE AREAS.”



Cengiz Karaşahin

1000 Farmers Endless Prosperity Program Corn Farmer, Adana/Ceyhan

“Within the scope of the 1000 Farmers Endless Prosperity Program, I gained knowledge on fertilization, crop tracking and irrigation. At the farmer meetings, I learned from the agronomists that it contributes to the yield when I give the fertilizers by dividing them, not all at once. With satellite field monitoring, if there is a color difference in the field, we

can easily detect it and go to our field to check if there are problems in those areas. With the “Agricultural Sensor Station,” we can follow irrigation days and the possibility of disease. In online communication groups, every farmer supports the others by giving them an idea. Thanks to the Program, my knowledge has increased and, when I look at corn, I can easily detect where

the plant disease is. We can reach agronomists whenever we call. I think that crops such as cotton and peanuts should be included in the Program in the coming years.”



Corn Farmers



“THE 1000 FARMERS ENDLESS PROSPERITY PROGRAM HAS SHOWN US HOW TO MAKE AGRICULTURE BETTER. THE DIGITAL SOIL ANALYZER ENABLED US TO FERTILIZE ACCORDING TO THE RESULT.”

Emin Yücel

1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Ereğli

“The 1000 Farmers Endless Prosperity Program has shown us how to make agriculture better. The digital soil analyzer enabled us to fertilize according to the result. We achieved 100-150 kg/da yield increases even though we used less fertilizer. I did not know when the fertilization of the plant was. As

a result of field visits, I learned from the agronomists when the corn plant had tassels. I contributed to the yield by using potassium-containing fertilizer in the pre-tassel period. I think it would be more beneficial to increase the field visits. I want my other farmer friends to

be included in the Program. I attended online training held in 2020. I would like to contribute to protecting the environment by minimizing waste and recycling.”

Focus Group of the Program



Corn Farmers

“THANKS TO THE AGRONOMISTS AND ONLINE COMMUNICATION CONVERSATIONS I COULD REACH ANY MOMENT, I LEARNED HOW TO FIGHT PESTS AND DISEASES AND HOW TO TAKE QUICK MEASURES. WITH SATELLITE SUPPORT, I CAN KEEP AN EYE ON MY FIELD FROM HOME. I DO IRRIGATION ACCORDING TO THE “AGRICULTURAL SENSOR STATION” DEVICE.”



Muhammet Abo

1000 Farmers Endless Prosperity Program Corn Farmer, Adana/Ceyhan

“As a result of the analysis made within the scope of the 1000 Farmers Endless Prosperity Program, I learned the structure of my soil. Thanks to the agronomists and online communication conversations I could reach any moment, I learned how to fight pests and diseases and how to take quick measures. With satellite support, I can keep an eye on my field from home. I do irrigation according to the “Agricultural Sensor Station” device. When I was irrigating at intervals of 12-15 days in previous years, I reached the information that I had to

irrigate at intervals of 7 days through to the warning given by the device when the corn plant came to the top tassel period. While I was cultivating with the information, we learned from our ancestors, I started to make knowledge-based production thanks to the Program. The Program allowed me to gain a scientific approach in terms of my talent and knowledge. I started to practice consciously. In previous years, I was giving 50 kg/da urea fertilizer at once. In this way, I learned that I could not take the whole plant and I should divide it and apply it.

Thus, I observed that the development of the plant increased. Within the scope of the Program, I would like to be gotten service on leaf analysis. As a result of leaf analysis, learning which microelements the plant needs will contribute more to us. I attended your zero-waste training online and was very satisfied. Thus, our sensitivity towards the environment has increased. In the past years, there was no area where we could use utilize plastic waste. We were destroying it by incineration. I want to work on minimizing plastic waste and recycling.”



Corn Farmers



**“I ATTENDED ONLINE
TRAINING HELD IN
THE 2020 SEASON
AND WAS VERY
SATISFIED.”**

Muhammet Çakıcı

1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Cumra

“Thanks to the engineers who came to the field within the scope of 1000 Farmers Endless Prosperity Program, I gained knowledge about the application of fertilization, irrigation and increase in efficiency. By meeting with the engineers, we have learned about the amount of water the corn plant needs and when we should water it. I increased my yield to 100-150 kg/da by fertilizing in

accordance with the analysis program created according to our soil analysis result. Although my input cost remained the same, I experienced an increase in efficiency. Through online communication groups, we meet different farmers. We were informed about occupational health and safety in the field at the farmer meetings in the 2019 season. I would like the Program to include crops such

as potatoes and sugar beets in the coming seasons. I attended online training held in the 2020 season and was very satisfied. In present conditions, there is no area where we can use our plastic waste. I would like to participate if there is training on reducing waste. I would like to work with you on minimizing plastic waste.”

Focus Group of the Program



Corn Farmers

**“WHEN I APPLIED
50 KG/DA DAP BASE
FERTILIZER IN THE
PAST, I REDUCED
MY INPUT COSTS
BY USING 40 KG/DA
DAP.”**



Nuri Osman Yeşilyurt

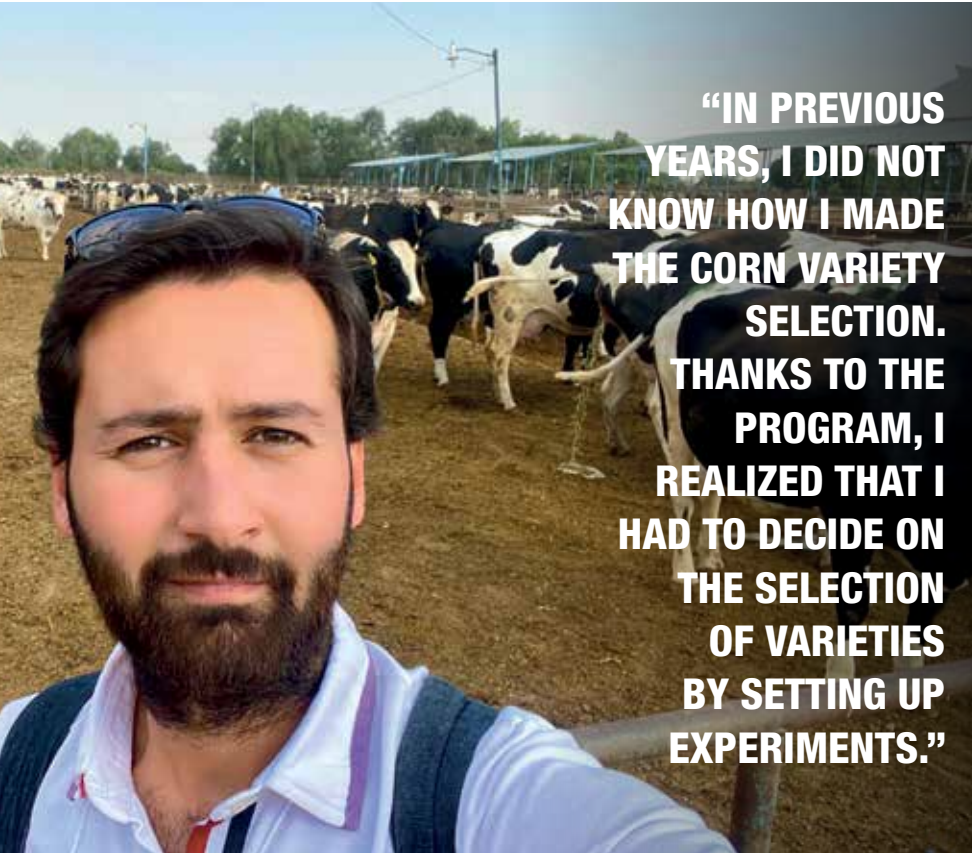
1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Karapınar

“Thanks to the engineers who came to the field within the scope of 1000 Farmers Endless Prosperity Program, I got information about fertilization. I increased my yield in the amount of 100 kg/da by fertilizing according to the analysis program created according to our soil analysis result. When I applied 50 kg/da DAP base fertilizer in the past, I reduced my input costs by using 40 kg/da

DAP. By farmers meetings with the engineers, we have learned about the amount of water the corn needs and when we should water it. I use the Crop Health Monitoring application and I am very satisfied. We deliver our plastic waste to the scrap dealers. I would like to work with you on minimizing plastic waste and be beneficial to the environment.”



Corn Farmers



Umut Ayberk Akbay

*1000 Farmers Endless Prosperity Program Corn Farmer,
İzmir/Ödemiş*

"I understood the importance of conducting digital soil analysis under the 1000 Farmers Endless Prosperity Program. Thanks to 1000 Farmers Endless Prosperity Programs in silage corn, I achieved a 7,800 kg/ha yield increase and reduced my input cost. The Program made me realize that traditional farming practices were not correct. I understood the importance of knowledge-

based production. Thanks to the "Crop Health Monitoring," I was able to detect the yellowing of the 1,200 square meter area where it was not possible to enter the field, by detecting from the satellite that the drip tube was blocked. In previous years, I did not know how I made the corn variety selection. Thanks to the Program, I realized that I had to decide on the selection of varieties by

setting up experiments. As part of the Program, I bought the "Agricultural Sensor Station" and "Crop Health Monitoring" devices that I had the opportunity to try for free. I think it is right to run the program with the willing young producers in the Program in the next period. I think that the qualified producers should choose the agronomists coming to the coffee shops and those who strive to increase productivity."

I attended online training on waste and I was very satisfied. In the past years, there was no area where we could use our plastic waste. This year, for the first time, we cooperated with our headman and collected plastics in the warehouse in the village center. Municipality officials will come and take our plastic waste. As part of the program, I would like to participate in studies on waste reduction and plastic waste recycling.

Focus Group of the Program



Corn Farmers

“FARMING IS OUR FATHER’S PROFESSION; WE WERE PRACTICING AS WE SAW FROM OUR ANCESTORS. WE HAVE NEVER BEEN TOGETHER WITH AGRONOMISTS BEFORE. THROUGH THIS PROGRAM, I FERTILIZED ACCORDING TO THE SOIL ANALYSIS RESULTS MADE BY AGRONOMISTS.”

Yalçın Soylu

1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Ereğli

“Thanks to the engineers who came to the field within the scope of 1000 Farmers Endless Prosperity Program, I gained knowledge on fertilization and irrigation. In previous years, we did not know what the earth wanted. Farming is our father’s profession; we were practicing as we saw from our ancestors. We have never been together with agronomists before. Through this program, I fertilized according to

the soil analysis results made by agronomists. I increased my yield to the amount of 100-150 kg/da by fertilizing in accordance with the analysis program created according to our soil analysis result. Through online communication groups, we meet new farmers. By sharing the problems experienced by different farmers as photos from online communication groups, we learn about the plant diseases and pests in our region. I think that

crops such as sugar beet should be included in the Program in the coming years. It will be easier for us farmers to be available in the winter months if possible, and in terms of better internet access in the city houses. Trainings are very useful in reducing plastic waste and not polluting nature. I evaluate our plastic waste by selling it to the scrapper. I would like to learn the least hazardous methods to nature.”



Corn Farmers



**“I RECEIVED
INFORMATION FROM
AGRONOMISTS
ON IRRIGATION.
THROUGH THIS
PROGRAM, I
LEARNED THAT I
MADE MISTAKES
IN IRRIGATION IN
PREVIOUS YEARS.”**

Yücel Yarimoğlu

1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Karapınar

“Within the scope of the 1000 Farmers Endless Prosperity Program, my field was monitored from the satellite. Agronomists called and said there was a problem in a certain area in my field. They informed me about the part with the development difference due to the different soil structures. They suggested that I use liquid sulfur. I received information from agronomists on irrigation. Through this Program,

I learned that I made mistakes in irrigation in previous years. I am fertilizing following the soil analysis result. In the past years, there was no waste yard where we could utilize our plastic waste. I would like to work on minimizing and utilizing plastic waste,”

Focus Group of the Program



Corn Farmers

“FARMERS SHARE PHOTOS OF PLANT DISEASES IN ONLINE COMMUNICATION GROUPS SO THAT WE HAVE INFORMATION ABOUT THEIR FIELDS.”

Zeki Ocak

1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Cumra

“Within the scope of 1000 Farmers Endless Prosperity Program, I learned about soil analysis, feeding and fertilizing corn. I was able to get in touch with expert agronomists and I benefited greatly from my agricultural knowledge. Farmers share photos of plant diseases in online communication groups so that we have information about their fields. In the 2019 season, we made face to face

questions and answers at the farmer meetings. We increased our agricultural knowledge. In the 2020 season, online meetings were held because of the COVID-19 pandemic. Online training on waste was given. I want to learn about waste management through waste training and ensure that waste utilization is done properly.”



Sunflower Farmers



**“AS A
MANUFACTURER, WE
NEED TECHNICAL
KNOWLEDGE.”**

Emre Yağlıkara

1000 Farmers Endless Prosperity Program Sunflower Farmer, Ankara/Polatlı

“As a manufacturer, we need technical knowledge. We want information about the steps to be considered during crop cultivation, fertilization and spraying during the season. It is our goal to use the next generation and science-based information rather than the information from our fathers. If you share the information with us on online communication groups, everyone can benefit,

and all farmers can question their production. I demand that the number of online training be increased. It will be easier for farmers in terms of availability if training is carried out during the winter months, if possible. Training is very useful in minimizing plastic waste and not polluting nature. I would like to learn the least hazardous methods to nature.”

Focus Group of the Program



Sunflower Farmers

**“I BELIEVE THAT
TRAINING ON
MINIMIZING WASTE
WILL BE BENEFICIAL.
I WOULD LIKE TO
WORK WITH YOU ON
PLASTIC RECYCLING.”**

İlker Sigo

1000 Farmers Endless Prosperity Program Sunflower Farmer, Balıkesir/Bandırma

“My expectation from 1000 Farmers Endless Prosperity Program is to do soil analysis in the coming years. In order to get a high yield from the field, I would like to use fertilization programs according to the soil analysis results. I would like to apply fertilizer and get various suggestions according to the soil structure. I believe that will be very useful to learn different agricultural information with

agricultural training. Online training was very useful. I believe that training on minimizing waste will be beneficial. I would like to work with you on plastic recycling.”



Sunflower Farmers



**“I BELIEVE THAT
IT WILL BE VERY
USEFUL TO LEARN
DIFFERENT
AGRICULTURAL
INFORMATION WITH
AGRICULTURAL
TRAINING. I
FOLLOW ONLINE
COMMUNICATION
GROUPS CLOSELY.”**

Yusuf Alak

1000 Farmers Endless Prosperity Program Sunflower Farmer, Balıkesir/Bandırma

“My expectation from 1000 Farmers Endless Prosperity Program is to be informed about agricultural issues and to be aware of agricultural innovations. In order to get a high yield from the field, I would like to use fertilization programs according to the soil

analysis results. I would like to apply fertilizer and get various suggestions according to the soil structure. I believe that it will be very useful to learn different agricultural information with agricultural training. I follow online communication groups closely.”

Public Institutions and Organizations

“THANKS TO THE TRAINING AND CONSULTANCY SERVICES PROVIDED WITHIN THE SCOPE OF THE 1000 FARMERS ENDLESS PROSPERITY PROGRAM, ENVIRONMENTAL, SOCIAL AND ECONOMIC AWARENESS ARE CREATED IN AGRICULTURAL PRODUCTION BY REACHING NUMEROUS VOLUNTEER FARMERS FROM DIFFERENT REGIONS; AND THIS POSITIVE IMPACT WILL SUPPORT SOCIETY’S APPROACH TO AGRICULTURE IN THE LONG TERM.”



*Hiçbir şeye ihtiyacımız
yalnız bir şeye ihtiyacımız
çalışkan olmak!*
B.A.

Ayşe Ayşin Işıkece*

The Republic of Turkey Ministry of Agriculture and Forestry, Directorate General of Agricultural Enterprises

* She was appointed as the Deputy Minister of the Ministry of Agriculture and Forestry.

Defining and supporting the seeding of those plant species with a production deficit in our country, and increasing their production and ensuring their sustainability by defining them, are at the top of the issues for which the agriculture sector needs support. In this sense, it is important to provide agricultural support on a product basis and to develop environmentally-friendly agricultural practices in production.

In dealing with the current pandemic, we see that “agriculture” and consequently “nutrition” are among the most important issues in community life. The self-sufficiency rate in terms of agricultural production, sustainable agricultural practices, food safety and the reliability of food safety issues came up more in this period. It is important to focus on these issues with strategic planning. Competence in agricultural production will be possible with the realization of sound agricultural practices and corporate social responsibility projects.

Thanks to the training and consultancy services provided within the scope of the 1000 Farmers Endless Prosperity Program, environmental, social and economic awareness are created in agricultural production by reaching numerous volunteer farmers from different regions; and this positive impact will support society’s approach to agriculture in the long term.

We hope to raise the number of trainings provided to the farmers included in the 1000 Farmers Endless Prosperity Program, increase good agricultural practices and train producers about sustainable agricultural activities. In order to reach the strategic goals of the Republic of Turkey Ministry of Agriculture and Forestry towards digitalization in agriculture and to increase the use of technology by farmers, training should be given primarily to producers with high agricultural production.

In addition, through the continuance of Digital Agriculture Market Project training provided within the 1000 Farmer Endless Prosperity Program, we try to reach all farmers, especially those with high agricultural production capacity.

Public Institutions and Organizations

**“THE SURVEYS,
EVALUATIONS AND
REPORTS CONDUCTED
WITHIN THE SCOPE OF
THE PROGRAM SHOW
THAT THE TRAINING
PROVIDED CONTRIBUTED
TO AN INCREASE IN
THE KNOWLEDGE
AND AWARENESS OF
FARMERS.”**



**İŞ SAĞLIĞI VE GÜVENLİĞİ
GENEL MÜDÜRLÜĞÜ**

The Republic of Turkey Ministry of Family, Labor and Social Services, Directorate General
of Occupational Health and Safety

An analysis of fatal occupational accidents in our country reveals that approximately 29% of these accidents are traffic accidents, 23% are accidents caused by work equipment such as tractors and agricultural machinery, 19% are caused by health reasons such as heart attacks, and 13% are fall accidents. When these accidents are evaluated, it is seen that the accidents caused by an insufficient level of occupational health and safety awareness among employees are considerably high. The unique working conditions of the agriculture sector, which is one of the sectors where work accidents occur frequently, and the possibility of encountering risks and dangers, demonstrate the importance of occupational health and safety in the agriculture sector.

Risks arising from tractors and agricultural machinery are among the leading causes of work accidents in the agriculture sector. The uninformed use of pesticides by improper methods causes both agricultural workers and those who consume

the products to be exposed to carcinogenic substances and endangers their health. On the other hand, due to technological changes in the field of agriculture, the increase in occupational accidents that occur as a result of the increased use of agricultural tools and machinery reveals the importance of occupational health and safety in this field. Accordingly, education has a significant role in preventing these accidents, which can harm both the people using these machines and the agricultural enterprises. It is important for agricultural workers to receive training before they start using pesticides and agricultural tools and machines.

It has been posited that 98% of occupational accidents and 100% of occupational diseases can be prevented when the necessary measures are taken in the correct approach of occupational health and safety culture in the field. Accordingly, one of the most important measures to be taken in the sector is to provide occupational health and safety training to farmers and to ensure the continuity of these trainings.

Within the scope of the 1000 Farmers Endless Prosperity Program, we provided special training on these issues, and we increased the awareness of farmers regarding factors that cause the most accidents and diseases. The surveys, evaluations and reports conducted within the scope of the Program show that the training provided contributed to an increase in the knowledge and awareness of farmers. These contributions have also helped to support the determination of farmers' needs and expectations and to guide the policies and strategies that can be formed on occupational health and safety in the field, especially with regard to pesticides, tractors and agricultural machinery, regionally. At this point, the continuation of this social responsibility program is important in terms of preventing work accidents and occupational diseases.

Associations and Academy

**“WE BELIEVE
THAT THE 1000
FARMERS ENDLESS
PROSPERITY
PROGRAM, HAS A
VERY HIGH ADDED
VALUE, ESPECIALLY
IN TERMS OF
AGRICULTURE’S
DIGITAL
TRANSFORMATION
AND FARMERS.”**



Aslı Özelli
General Secretary, American Business Forum In Turkey (AmCham/ABFT)

The importance of foreign direct investment is observed in increasing the share of countries in global supply chains. The value of foreign direct investment is better understood these days when participation in global supply chains comes to the forefront as a critical determinant in terms of competitiveness and sustainability. In terms of foreign direct investment, it is possible to say that US-based foreign investors have a place in the front row of Turkey's investor portfolio. To put it numerically, according to data from the Presidency of the Republic of Turkey Investment Office, in the years 2006-2019, direct investments from the US to Turkey reached USD 12 billion. As of 2019, the number of American companies operating in Turkey has exceeded 2,000. These numbers are indicators of the deep-rooted economic relationship between the two countries. AmCham Turkey's report, prepared by an independent audit and consulting company, remarks on the transformative effect of American investment on R&D and innovation issues, in addition to its contributions to economic sustainability and towards the closing of the current account deficit in the countries where it operates.

Collaboration with US-based companies allows the development of domestic companies and, especially, their ability to open up to the world by operating in line

with international business standards. In addition, some of the American companies with criteria in terms of sustainability on a global level, have started to apply the same criteria in Turkey. Applying these global standards in Turkey will carry Turkey's sustainability agenda into alignment with global trends. As it is seen from AmCham Turkey member companies, it is observed that American companies operating in Turkey provide social benefits to our country in many aspects, especially in terms of inclusiveness, through developing an ecosystem where they locate and are in close communication and cooperation with local SMEs and start-ups that they serve or have as customers. Also, according to our latest member profile research, as of 2019, AmCham Turkey members have more than USD 50 billion in investments in Turkey in total; and it is possible to say that the employment created by these companies is nearly 100,000. As well, American companies – including our members – have also provided about an USD 9 billion contribution in exports from Turkey.

It is possible to say that many American companies have provided in-kind and financial support to the geography they are in, especially during the COVID-19 period in 2020. AmCham Turkey members provided around TL 50 million to Turkey during the pandemic.

The recent increase in the capacity and capital of agriculture and food sector members attracts investments. One of our members operating in the sector has realized a capacity increase of USD 54 million. With the investment mentioned, it is aimed to export all production to the USA, and the production start date is February 2021.

We believe that the 1000 Farmers Endless Prosperity Program, carried out by an American company, Cargill, has a very high added value, especially in terms of agriculture's digital transformation and farmers. The project is exemplary in that it is a program that considers the issues of climate change and waste management, which are among the priority issues, and offers different and agile solutions integrated with digitalization and sustainability agendas for the business world. Likewise, providing data and policy proposals for the employment of women through learnings in the project could contribute to the agenda in Turkey. This project, which is currently implemented for sunflower and corn products, can be expanded to include different product ranges in cooperation with other international companies operating in the field of agriculture and food.

Associations and Academy

**“WE HOPE
THAT THE 1000
FARMERS ENDLESS
PROSPERITY
PROGRAM WILL BE
AN EXEMPLARY
STUDY FOR THE
PRIVATE SECTOR, AS
IT IS A LONG-TERM,
IMPACT-ORIENTED
AND AWARENESS-
RAISING PROGRAM.”**



Dr. Gonca Ongan
Managing Director, KUSİF (Koç University Social Impact Forum)

As defined in our Social Impact Measurement Guide: KUSIF Four Steps guidance, social impact can generally be defined as “the change that occurs as a result of an activity” or “the effects on different people as a result of an action/activity/project/program,” Social value and social impact concepts are intertwined. Every project that aims to create social value is also expected to have a positive impact on society in the areas it works on. Especially, the aim of organizations trying to create social value is to create positive change completely or partially.

We see that the 1000 Farmer Endless Prosperity Program aims to increase the profitability and productivity of farmers, who are the Program’s target audience, by increasing their knowledge in line with various training and practices. According to the results of the first year of the Program, we understand that by measuring the social impact created on the farmers, inferences can be made about the realization of the Program goals and, based on this, the scope of the Program is expanded by determining new targets and diversifying the target group for the 2020 season, the second year of the Program.

With the social impact study, the social impact of the Program on farmers was requested to be communicated to stakeholders. With the same approach, the sustainability performance of the Program is presented to stakeholders with the 1000 Farmers Endless Prosperity Progress Report. We hope that the 1000 Farmers Endless Prosperity Program will be an exemplary study for the private sector, as it is a long-term, impact-oriented and awareness-raising Program.

In the following periods, diversifying the target group within the scope of the Program, measuring the change in all target groups and its sub-groups, analyzing the positive and negative effects encountered during the Program, explaining the relationship between the farmers and the benefit obtained from the Program, and including other important stakeholder groups that have or are found to be affected in the impact measurement will contribute to the clear explanation of the social value of the Program.

Associations and Academy

**“THE 1000
FARMERS ENDLESS
PROSPERITY
PROGRAM,
IMPLEMENTED BY
CARGILL ENABLES
OUR PRODUCERS
TO PRODUCE
MORE EFFICIENTLY
WITH MODERN
TECHNIQUES.”**



Ebru Dicle
Secretary General, TÜSiAD

As TÜSİAD, we attach great importance to the agriculture and food sector due to its contribution to both the economy and employment of our country. In terms of agricultural land size, our country is among the largest in Europe and even in the world. We are among the top ten in the production of 55 products in the world with our rich geographical and climatic features that make agriculture suitable, our biological diversity, our workforce and our agriculture-based industry.

Despite our richness in the agriculture and food sector, we, unfortunately, see that we are far behind the added value created in countries that we still compete globally with. The main reasons are the small-scale and divided agricultural enterprises in our country, the use of rich and fertile agricultural lands for non-agricultural purposes, and problems in agricultural markets and agricultural organizations. However, climate change, problems in access to finance and low-impact governmental supports, and the minor share of R&D, innovation and digitalization in the agriculture and food sector compared to other sectors, as well as migration from rural to urban areas, and an aging agricultural population are also listed as important reasons.

In 2020, we shared our study of the “Analysis of the Agriculture and Food Sector in the Context of Sustainable Growth,” in which we brought concrete action steps to solve these problems, which are seen as the biggest constraints on the realization of the potential of our agriculture and food sector.

We have seen that one of the most important dynamics for the successful implementation and effective results of the proposals we put forward within the scope of this study is the creation of an agriculture and food sector strategically positioned in public policies, which have a higher share of added value. For this, mainly in public institutions and organizations, cooperation and coordination are required among all stakeholders operating in the agriculture and food value chain, agricultural production, logistics, food industry and retail.

Since the time where the first agricultural activity known in the world took place in Göbeklitepe – one of the most important riches of our country – where agriculture has been carried out on its soil, there too are our producers who love the soil, cultivate and recognize the soil. Although employment has shifted from agriculture to industry and services in recent years, in parallel with global trends, the agricultural production skills and knowledge in our country continue to be

passed on from generation to generation. Supporting this experience with innovative applications and tools, and equipping our producers with a wide spectrum of competencies – from financial literacy to reducing agricultural waste and loss, from digital agriculture to modern marketing techniques – is one of the most important factors that will increase added value. The 1000 Farmers Endless Prosperity Program, implemented by Cargill, one of our TÜSİAD members, will enable our producers to produce more efficiently with modern techniques and thereby increase their share of added value. The 1000 Farmers Endless Prosperity Program is not just a social responsibility project, but a valuable best practice example for the creation of sustainable agriculture and the food sector in our country.

Based on the importance of our agriculture and food sector for both our economy and prosperous and healthy society, we, as TÜSİAD, continue our efforts to create a sustainable, high value-added agriculture and food sector by contacting various actors in the value chain. We congratulate Cargill for this successful initiative and we hope that the impact of the 1000 Farmers Endless Prosperity Program will continue to increase in upcoming periods.

Associations and Academy



“IN ADDITION TO BEING A PRODUCTION ACTIVITY, EACH PRODUCT OR TECHNIQUE THAT IMPROVES FARMING, WHICH IS A SOCIAL LIFESTYLE, ALSO CREATES SIGNIFICANT VALUE FOR FARMERS.”

İsmail Kemaloğlu
Secretary General, Starch Manufacturers Association (NISAD)

Among the cereal products, corn takes a very important place in our country's agriculture. Nowadays, corn is cultivated in approximately 3% of the cultivated areas of our country. The corn crop is produced by around 210 thousand farmers in our country. This shows that 10% of the farmers included in the farmer registration system are engaged in corn production.

The corn crop is used in many different sectors such as food and animal husbandry, and the starch and feed industries. It is a valuable product for which the starch industry has no alternative.

In our country, corn farmers are more conscious and careful, because corn is a product grown in large areas and the production amount is high. The main tools farmers need for a world-class production model are access to information, technology and capital. Our farmers, who can access the necessary information, technology, capital, and supplies, can easily produce

at world standards. In this respect, contract production, co-production, training for farmers and consultancy services are important. Therefore, industrialists and raw material users should support the maintenance of the soil and the farmers.

Productivity, farmer welfare, social and digital transformation and sustainable agriculture are the areas where the farmer needs development the most. In addition to being a production activity, each product or technique that improves farming, which is a social lifestyle, also creates significant value for farmers. It is of great importance for farmers to benefit from these opportunities in order to compete in the world, to use developing and changing technology, and to manage cost-efficiency. In this respect, the 1000 Farmers Endless Prosperity Program, managed by Cargill, is a development-oriented and high-value-added project.

The main subjects in agricultural production are cost management, quality and productivity. The 1000 Farmers Endless Prosperity Program focuses on these points and supports farmer development through social impact measurements. The 21% productivity increase achieved within the scope of the Program is exemplary in terms of what kind of achievements and progress can be achieved with the training, consultancy and technology support provided to the farmers. As the NISAD family, we are grateful for the achievements and support from our farmers. We believe that every activity that affects our farmers and adds value to their lives is invaluable.

Associations and Academy

**“DIGITALIZATION,
THE SOCIAL AND
ECONOMIC SECURITY
OF THE FARMER,
THE HARMONY OF
THE AGRICULTURAL
PRODUCTION
PATTERN WITH
REGIONAL
CONDITIONS, AND
THE REGULATIONS
TO BE MADE IN THE
USE OF NATURAL
RESOURCES ARE
THE MAIN CHANGES
NEEDED.”**

Konca Çalkıvık

Executive Director, Business Council for Sustainable Development Turkey (BCSD Turkey)

The Business Council for Sustainable Development Turkey (BCSD Turkey) was founded in 2004 in order to make the concept of sustainability one of the main strategies. It is a business association that accepts corporate memberships only. Our association, which is the regional agent and the partner of WBCSD-World Business Council for Sustainable Development in Turkey, already has 67 members from 18 different sectors.

We carry out our work in five focus areas that we have determined in line with the United Nations Sustainable Development Goals. One of these focus areas is Sustainable Agriculture and Access to Food. The Sustainable Agriculture and Food Access Working Group aims to contribute to the transformation towards sustainability of food and the agriculture sector in Turkey. With our work, we are carrying out various studies to support our members in this regard.

As we have mentioned many times during the pandemic process, access to food is of vital importance, especially in cities. The continuation of agricultural production in a respectful manner to the planet, the safe provision of food, and financial accessibility are all critical issues.

The need for reform in each of these aspects is voiced by experts. Considering that the risks arising from climate change threaten agricultural production and access to food in the next 10 years, it becomes important to identify regional risks, reduce them and determine appropriate steps for adaptation to new conditions.

Digitalization, the social and economic security of the farmer, the harmony of the agricultural production pattern with regional conditions, and the regulations to be made in the use of natural resources are the main changes needed. It is possible to trigger these changes with legislative

regulations, but it is not possible to achieve a total transformation without creating a change in behavior. Social responsibility programs and pilot applications in the field are the best tools to show and inspire farmers. So, it is much easier to initiate voluntary change and make it permanent.

It is promising that the Program will help to reduce agricultural risks by taking advantage of the technology age. The systems are becoming permanent, making legislative suggestions where necessary, and creating an environment where the farmer will learn, which will increase the impact of the Program.

Associations and Academy

“IT IS CONSIDERED THAT THE 1000 FARMERS ENDLESS PROSPERITY PROGRAM, WHICH CARGILL HAS IMPLEMENTED WITH THE FOCUS ON THE DEVELOPMENT OF SUSTAINABLE AGRICULTURE, WILL BE BENEFICIAL DUE TO THE SIZE OF THE ECOSYSTEM THAT IT WILL DIRECTLY AND INDIRECTLY IMPACT AND THE DIGITALIZATION IN AGRICULTURE.”



International Investors Association (YASED)

The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, are defined as “a universal call to action to eradicate poverty, protect our planet and ensure that all people live in peace and prosperity,” The Sustainable Development Goals consist of 17 goals including interconnected areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice.

The Sustainable Development Goals include goals that can be adopted, not only by countries or civil society, but also by companies and individuals, and they give responsibility to all actors in the ecosystem. Companies that integrate the Sustainable Development Goals into their vision not only fulfill their corporate social responsibilities but also gain an advantage in terms of global and local competitiveness in the long term.

In recent times, it has been observed that the issue of sustainability has come to the fore as activities that become action by international organizations, societies and companies with initiatives such as the United Nations Responsible Investment Principles (UN-PRI) and the EU Taxonomy Regulation. The companies that relate to this initiative keep a record of their revenues from sustainable products and services, as well as their capital and operational expenditures. These records, also being factors that affect the investment decisions of investors, reflect the current position of the company and its future goals regarding sustainability.

At this point, when sustainability is no longer a subject followed within the scope of social responsibility but becomes a business model, it begins to act within the framework of feasibility and business plans that address the impact of investment in the broadest sense. In this context, a new economy has been formed within the framework of impact investments, which is an important example of sustainable investments, focusing on social and environmental impacts beyond financial returns. Now, many investors prefer to diversify their investments and have started to allocate resources for

issues such as clean energy, responsible production and sustainable agriculture.

Today, when it comes to sustainability, agriculture and food supply issues come first to mind. Particularly with the COVID-19 pandemic, we experienced in 2020, the efforts to invest in innovative approaches and digitalization projects that will ensure efficiency in agriculture from production to supply, consumption and even recycling have gained momentum. It is thought that the factor that creates a difference in these sustainability projects is originality and inclusiveness. In this context, it is considered that the 1000 Farmers Endless Prosperity Program, which Cargill has implemented with the focus on the development of sustainable agriculture, will be beneficial due to the size of the ecosystem that it will directly and indirectly impact and the digitalization in agriculture.

As the International Investors Association, we would like to thank our member, Cargill, for leading the Program; we believe that the Program will achieve the goals of efficiency, innovation, cost reduction and increased earnings, which are the basis of the determined circular economy.

Program's Partners

**“PLASTIC AND
WOOD WASTE AND
RESIDUES IN THE
FIELD SHOULD BE
MANAGED WELL.
THE WASTE SHOULD
ADD VALUE TO
THE CIRCULAR
ECONOMY.”**



Prof. Dr. Filiz Karaosmanoğlu

*Faculty Member of Chemical Engineering Department at Istanbul Technical University (İTÜ)
and Supervisor of Cargill- İTÜNOVA Technology Transfer Office Project*

Nowadays, since the pre-agricultural era, people's consumption has increased along with changing and developing technology. The climate has changed, as a result of environmental pollution caused by human activities at home, at work, in industry, and on the field. Soil is the working factory in nature. If this green factory is not managed well, it will adversely affect climate change by causing environmental pollution and will be affected by land management and land-use changes due to rainfall anomalies caused by solid-liquid-gas pollutants and global temperature increase, as well as drought, increase in the global surface and global ocean temperatures, sea-level rise, and loss of snow and glaciers. Therefore, agricultural production must be managed sustainably. Within the scope of the Program, the first Life Cycle Assessment (LCA) study on agricultural production will be conducted across the broadest and most varied geography of our country according to the data of the 2020 season, and the carbon management suggestions will be presented to the farmer application for the 2021 season to reduce all the environmental effects of the green factory.

The farmer sows seed, fertility, and labor into the soil. In addition to the water and energy he consumes while growing, he harvests his product, fertility,

and labor by using fertilizers and agricultural chemicals. To achieve sufficient agriculture for the rapidly growing population, fertilizers which is one of the miraculous discoveries of the chemical industry, and agricultural chemicals (plant protection products) produced by increasing diversity in line with the needs, have been consumed. This consumption has brought human, animal, and environmental health problems and the waste problem of plastic packaging to the field. After every chemical consumption during the season, hazardous waste plastic remains in the field.

For sustainable agriculture, it is vital to minimize the amount of input and reduce toxic and hazardous chemicals. In this direction, if agricultural chemicals are used correctly and according to the appropriate recommendations, waste plastic formation decreases, and soil, nature, and people are better off. Besides, wood waste and residues generated during harvest in the field are raw materials and renewable resources. Wood wastes should not be burned as stubble in the field. For example, when 1 ton of corn stubble is burned, 1,072 tons of carbon dioxide equivalent methane and nitrogen oxides and 6.26 kg PM2.5 (particles 2.5 microns and smaller) are produced, which causes lung and heart diseases. These particles (smaller than about three percent of the hair strand), invisible to the eye but detectable by electron microscopy, can also accumulate in blood vessels.

For these reasons, plastic and wood waste and residues in the field should be managed well. The waste should add value to the circular economy and create job opportunities.

The study is carried out within the İTÜNOVA Technology Transfer Office Project "Zero Waste Management in the Field" under the supervision of Prof. Filiz Karaosmanoğlu, and in cooperation with the Turkish Plastics Manufacturers Research Development & Educational Foundation (PAGEV). Taking the 2019 figures as a start and collecting the data throughout the 2020 season, "Waste Mapping" is carried out. To reach the facilities that consume the waste in the field as raw material, the work continues for the "Zero Waste Management System Model in the Field", considering the best supply chain management method. With this model, which will be an important first for our country, a road map and action plan for the 2021 season will be prepared, and waste harvesting will be achieved in the field. Thus, within the scope of the 1000 Farmers Endless Prosperity Program, our farmers, who have increased their digital agriculture, irrigation, occupational safety and health, financial literacy competencies in 2019, and increased their productivity and income in the field, will gain strength in sustainable agricultural production with the best waste management. Their field will gain resistance to climate-sensitive production.



Please scan the QR code on your phone to watch the Zero Waste in the Field training video.

Program's Partners

“IN ADDITION TO INCLUDING THE OHS IN THE FIELD IN THE PROGRAM, IT IS A VERY IMPORTANT STEP TO PUT THE ISSUE ON THE AGENDA AND DISCUSS IT WITH FARMERS, ESPECIALLY IN FACE-TO-FACE MEETINGS.”



Associated Prof. Y. Benal Öztekin
*Faculty of Agriculture, Department of Agricultural Machinery and Technologies Engineering,
Ondokuz Mayıs University*

Agriculture is a business line in our country, one that is mainly conducted by self-employed people and generally as a family business. Today, it is not possible to say that those who are active in this segment have been provided with regular, non-formal and effective training on OHS issues in the field. Increasing the demand on these issues is related to understanding the importance of the subject in terms of all components in the field and making it visible. It is possible to foresee that any such initiative in the context of Occupational Health and Safety in the field will have positive results. As part of the 1000 Farmers Endless Prosperity Program, we have put agricultural accidents on the agenda in order to increase the alertness of our farmers, especially in the prevention of occupational accidents in the field. With the 1000 Farmers Endless Prosperity Program, we have provided training to raise awareness about occupational health and safety and to establish an OHS culture in production.

In addition to including the OHS in the field in the Program, it is a very important step to put the issue on the agenda and discuss it with farmers, especially in face-to-face meetings. The next step will be to keep our farmers close by utilizing online talks and interactive training content, especially considering the extraordinary COVID-19 pandemic process we have undergone, and this will create positive results for the farmers.

We will be seeing the results of these efforts both soon and in the long term. In this context, I congratulate the 1000 Farmers Endless Prosperity Program teams for their efforts, as they are among the pioneers in awareness and visibility.

Program's Partners

“AS FODER, WITH THE FINANCIAL LITERACY SUPPORT WE PROVIDE TO THE FARMERS UNDER THE 1000 FARMERS ENDLESS PROSPERITY PROGRAM, WE TARGETED TO GIVE FARMERS THE ABILITY TO BE AWARE OF THE LOAN AND PAYMENT PLAN, TO BE INFORMED ABOUT FINANCIAL ISSUES, TO CREATE THE RIGHT BUDGET, TO DISTINGUISH BETWEEN OPERATING AND HOUSEHOLD BUDGETS, AND TO ACT WITH INFORMATION ON DEBT RESTRUCTURING.”



Atilla Köksal
Chairman of the Board of the Financial Literacy and Inclusion Association (FODER)

Since the day we were founded as the Financial Literacy and Inclusion Association (FODER), our primary goal has been to contribute to the creation of a financial literacy ecosystem across the country by collaborating with the state, private sector and other non-governmental organizations.

As defined by the OECD, financial literacy is the process of increasing financial welfare by ensuring that financial consumers are informed about financial products and concepts and that they have the awareness that they can choose between financial risks and alternatives.

In the agriculture sector, a budget problem arises as a result of collective income that farmers and agricultural workers earn in line with harvest periods, unlike fixed-income workers. The intertwining of family expenses with business expenses also creates important cash flow problems.

Financial literacy training helps farmers overcome these difficulties and raise financial awareness at an individual level; as well, such training helps the development of the national economy by raising awareness on issues such as savings, budget, and investment. Increasing the financial awareness of the approximately 2.2 million farmers registered in the Farmer Registration System in our country in 2019 plays an important role in the sustainable development of our country.

As FODER, with the financial literacy support we provide to the farmers under the 1000 Farmers Endless Prosperity Program, we targeted to give farmers the ability to be aware of the loan and payment plan, to be informed about financial issues, to create the right budget, to distinguish between operating and household budgets, and to act with information on debt restructuring. We aimed to help farmers understand the importance of regular savings and thoughtful spending, to

show how cost and profit margins are calculated and how cash flow plans work, to understand the role and potential of financial service providers and the products they offer, and to use these services correctly, and to make them confident about asking questions regarding insurance, bank accounts or interest rates.

As FODER, we are proud to cooperate with Cargill within the scope of the 1000 Farmers Endless Prosperity Program and to be a part of such an important social responsibility program, in financial literacy support – one that we believe will improve our farmers' knowledge on financial issues, increase their income and savings levels and contribute to their financial well-being in the long term.

Program's Partners

**“CARGILL-İTÜ-PAGEV,
WE AIM TO COLLECT
WASTE PLASTICS IN
THE FIELD, PROCESS
THEM IN THE
WASTE ECONOMY,
AND INCREASE
RECYCLING
AMOUNTS WITHIN
THE FRAMEWORK
OF ‘ZERO WASTE
MANAGEMENT IN THE
FIELD’.”**



Yavuz Eroğlu

Chairman of the Board, Turkish Plastics Manufacturers Research Development & Educational Foundation (PAGEV)

Among the members of PAGEV, the leading non-governmental organization of the Turkish Plastics Industry, which is the sixth in the world in terms of production volume and second in Europe after Germany, the manufacturers of pipes, sacks, bags, drip irrigation, bottles, ropes, nets, greenhouse cover, drums and case materials used in agriculture play a significant role. In agricultural production, which is an important source of income and employment for our country, efficiency can be increased by saving resources through sustainable management of the use of these plastics.

With the plastics used in agriculture, indispensable contributions are provided in the management of many effects such as temperature, humidity, light, irrigation, pest control and harvest protection. For PAGEV,

plastics in the field are a valuable resource that cannot be ignored after their useful life. Waste plastics can be recycled to their original state, recovered from new materials, or recycled into energy. Aiming to carry plastic waste management projects and applications further since 1990, PAGEV offers its technical knowledge and expertise to relevant stakeholders in open dialogue and performs waste management data analysis.

Cargill-İTÜ-PAGEV, we aim to collect waste plastics in the field, process them in the waste economy, and increase recycling amounts within the framework of 'Zero Waste Management in the Field'. Thus, we aim to reduce the greenhouse gas emissions of the sector in an eco-efficient way and to achieve waste management in the most effective way, while preventing the leakage of plastics in the

field and into nature after use and saving natural resources in the circular economy. There is no legal regulation of the European Union (EU) regarding this matter yet. At this point, only seven countries out of 29 EU member countries have made regulations with their own legislation on this issue. We also believe our contribution will be an important step both in Turkey and the EU for the creation of new legislation that will give direction to our farmers to facilitate this Program in the field of waste management and to monitor and control the plastic waste management chain, starting from the field, in accordance with environmental and economic advantages, and to create local added value.

Program's Partners

“ALTHOUGH IT WAS SEEN THAT A LARGE NUMBER OF THE FARMERS WERE NOT AWARE OF THIS SYSTEM BEFORE THE TRAINING, IN LIGHT OF THE FEEDBACK RECEIVED AS A RESULT OF THE TRAINING, WE SAW THAT THEY INTEND TO INTEGRATE EWR INTO THEIR LIVES, IN ORDER TO ENSURE THAT THE FARMERS SELL THEIR PRODUCTS AT THE RIGHT PRICE.”



Aydin Seyman

Electronic Warehouse Receipt (EWR) Trainer, Consultant at Turkey Mercantile Exchange (TMEX)

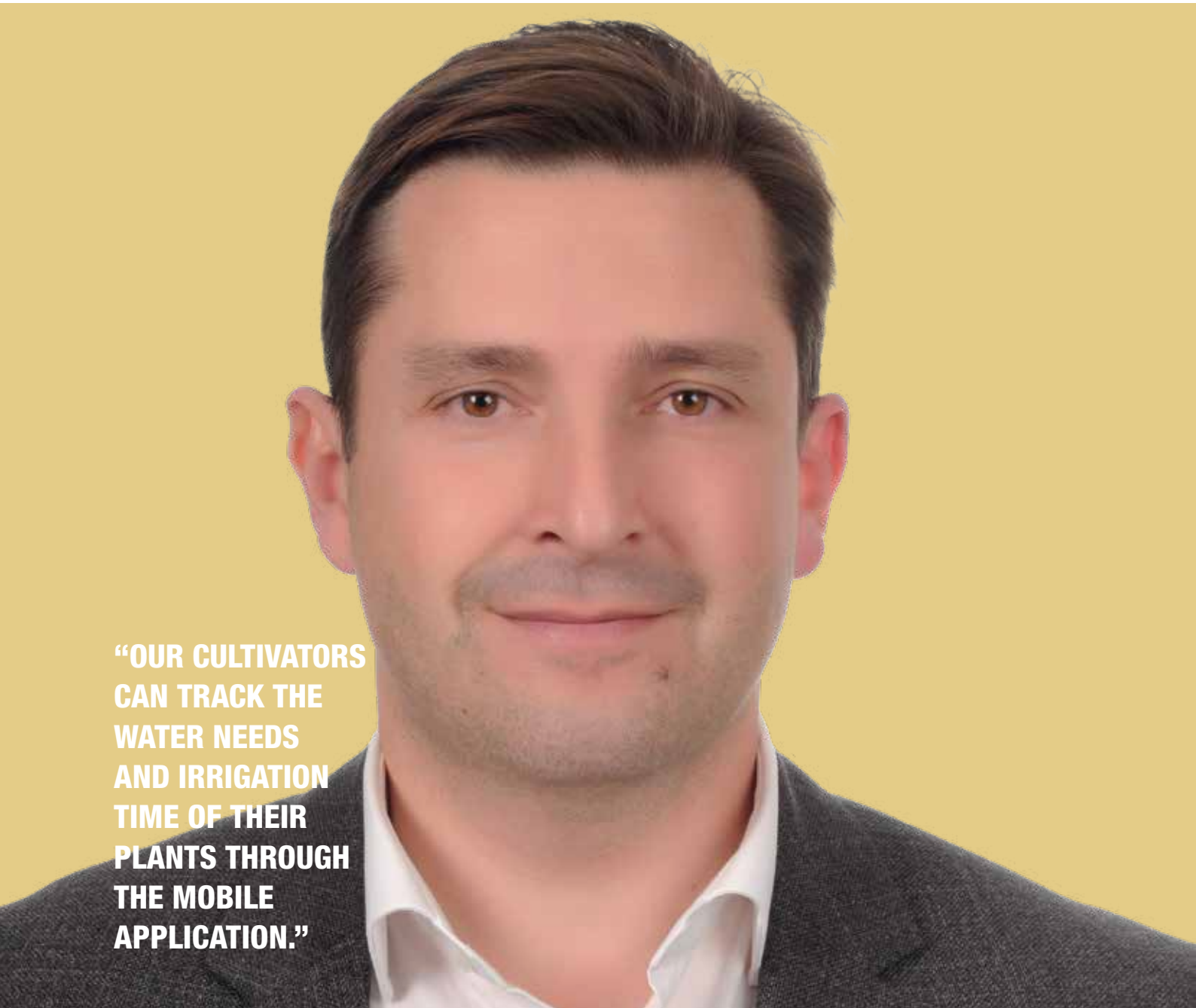
Electronic Warehouse Receipt (EWR) trade allows farmers to eliminate the negative impact of price anomalies caused by excessive harvest time through licensed warehouses and to sell their products at the best price in an efficient and organized market environment. For this purpose, the Turkey Mercantile Exchange (TMEX) was established in July 2019.

Reaching 36 million tons in grain production volume in 2019, according to data from the Republic of Turkey Ministry of Commerce, the licensed warehouse capacity installed for the infrastructure of the EWR was five million tons in 2020. In this context, there are only 55,000 farmers who can trade EWR and are aware of this issue, from the nearly two million farmers registered in the Farmer Registry System of the Republic of Turkey Ministry of Agriculture and Forestry.

Accordingly, we have prepared training programs in order to introduce EWR and TMEX to farmers within the scope of the 1000 Farmers Endless Prosperity Program. I think that these trainings contribute to farmers. In parallel, the farmers who traded in the TMEX EWR Market are confident that they are receiving the right price because they use this system.

Although it was seen that a large number of the farmers were not aware of this system before the training, in light of the feedback received as a result of the training, we saw that they intend to integrate EWR into their lives, in order to ensure that the farmers sell their products at the right price.

Program's Partners

A portrait of Ömer Gazimihal, a man with dark hair and a slight smile, wearing a dark suit jacket over a white shirt. The background is a solid yellow color.

**“OUR CULTIVATORS
CAN TRACK THE
WATER NEEDS
AND IRRIGATION
TIME OF THEIR
PLANTS THROUGH
THE MOBILE
APPLICATION.”**

Ömer Gazimihal
Director of Digital Business Services Corporate Product Management, Turkcell

As the world's first digital operator, we stand by our customers with our digital products and services, digital business solutions and techfin sector. As a company working for 26 years for Turkey, and one that gives back its earnings from Turkey to its country and nation, we create solutions for the changing demands and needs of our customers with the services we offer through our strong infrastructure. Digitalization, the importance of which has recently increased along with the pandemic, has become vital for companies, public institutions and even industries. Thus, it has become clear that the technology sector is a strategic investment with an impact on all areas, including education, health, logistics and agriculture. In fact, the telecommunications sector has become the main component that affects all sectors and enables the companies operating in those sectors to do their jobs better.

Regarding the impact of digitalization on the agricultural sector, especially; one of our most important goals is to ensure the digitalization of the agricultural sector and to support the cultivation of efficient and healthy products. In this context, we developed our domestic and national product Filiz, in order to support our farmers. Filiz provides convenience to our farmers by turning data into meaningful information with artificial intelligence algorithms. Filiz can also be used in seven regions of Turkey; it takes hourly measures of the temperature and humidity values in different points of the soil and air by means of sensors. In addition, through Filiz, we prevent possible yield losses by providing early warning to our farmers against disease risk. As well, our cultivators can track the water needs and irrigation time of their plants through the mobile application.

With Turkey's first private domestic industrial-designed and national agricultural climatic station with a dedicated industrial design, as Turkcell Filiz, we participated in the 1000 Farmers Endless Prosperity Program that supports farmers in Turkey on sustainable farming practices. Via the smartphone application, Turkcell Filiz, we shared irrigation suggestions and fungal disease risks with our farmers by processing data such as hourly temperature, humidity and soil moisture, collected by Turkcell Filiz from the fields of 20 corn and sunflower farmers participating in the Program, with special algorithms in the cloud. Through our digital products and services, we will continue to support the social responsibility project, 1000 Farmers Endless Prosperity, which aims at digital transformation in agriculture.

Program's Partners

**“THE REPORTING
PROCESS CARRIED OUT
BY EY ENSURES THAT
THE ENVIRONMENTAL,
SOCIAL, AND ECONOMIC
IMPACTS CREATED
ARE UNDERSTOOD BY
ALL STAKEHOLDERS
AND THAT THE
BENEFITS PROVIDED
BY THE PROGRAM ARE
MATERIALIZED, FROM
THE IMPLEMENTATION
OF THE PROGRAM TO
THE RESULTS.”**

Zeynep Okuyan Özdemir
EY Turkey, Climate Change and Sustainability Services Leader

One of Turkey's biggest issues in agriculture, which is an important component in the sociological and economic structure, is its low yields. Productivity-enhancing solutions and innovations are needed for the development of the agriculture sector, which is supported by modern technologies and modern economic norms in developed countries.

The 1000 Farmers Endless Prosperity Program aims to increase profitability and increase welfare levels by providing added value to corn farmers while increasing their productivity. With this important efficiency Program, we calculated the effect of the social support given to our farmers through social impact measurement studies – and the results were highly positive.

We share the impact and sustainability performance of the Program on our farmers, our society, and our ecosystem with all internal and external stakeholders of the program through this 1000 Farmers Endless Prosperity Program Progress Report. The reporting process carried out by EY ensures that the environmental, social, and economic impacts created are understood by all stakeholders and that the benefits provided by the Program are materialized, from the implementation of the Program to the results.

I believe that our report will contribute significantly to increasing the awareness of producers, organizations, society and the public on sustainable productivity in agriculture and on the development of the farmers. This work will also generate support for innovative and sustainable solutions in efficiency and give a clearer understanding of the impacts by measuring the sustainability performance of the Program.

As EY, we are proud to be part of the Program, which plays a major role in sustainable development in the field of agriculture on a national scale. We are delighted that we can contribute to raise awareness of the importance of agriculture in the development of our country and help increase the access of our farmers to technology and information.

Program's Partners

A woman with long brown hair, wearing a white button-down shirt and dark trousers, is smiling and looking towards the camera. She is standing in a grassy field with a dark building in the background. The text is overlaid on the left side of the image.

**“WE CONTINUE
TO STAND BY OUR
FARMERS WITH OUR
TECHNOLOGICAL
INFRASTRUCTURE
AND REMOTE ACCESS
SYSTEMS, EVEN WITH
THE RESTRICTIONS
CAUSED BY THE
COVID-19 PANDEMIC IN
2020.”**

Hande Çetin
Operation & Data Collection Team Manager, Doktor

We answer all our farmers' agricultural questions about corn, sunflower and other crops they grow via the 1000 Farmers Endless Prosperity Technical Support Line, which is open 24/7 for the 1000 Farmers Endless Prosperity Program.

Within the scope of the Program, our farmers can communicate any agricultural problems by calling the Technical Support Line at 444 51 75, writing to online communication groups, and by contacting our expert engineers directly via phone or message. Our farmers can also exchange ideas with online communication groups that we have created according to their regions and the products they grow. Our farmers mostly asked about which fertilizers to use, and when and how to use them. Last year, the most frequently asked questions were about fertilization, registration to mobile applications, and irrigation; this year, however, fertilization was followed by questions on cultivation and planting.

We continue to stand by our farmers with our technological infrastructure and remote access systems, even with the restrictions caused by the COVID-19 pandemic in 2020. We are pleased to provide 24/7 uninterrupted technical support service to our farmers since they have limited access to other institutions for technical support.



"I had a lack of phosphorus and boron in corn before. What do you recommend?"



"Which corn variety is most resistant to thirst stress and drought. Would you help me with this topic?"



"Why is it necessary to fertilize with potassium content 1 week before the tassel period?"

Program's Partners

A portrait of Nihat Mıdıköğlu, a middle-aged man with grey hair, wearing a dark blue suit, white shirt, and a patterned tie. He is standing outdoors in front of a modern building with large windows. The background is slightly blurred.

“AS PART OF THE 1000 FARMERS ENDLESS PROSPERITY PROGRAM, OUR FARMERS BENEFITED FROM THE SUGGESTIONS AND RECOMMENDATIONS WE PROVIDED, AND THEIR TRUST IN OUR PROGRAM INCREASED.”

Nihat Mıdıköğlu

The 1000 Farmers Endless Prosperity Program Chief Agricultural Engineer, Doktor

Within the scope of the 1000 Farmers Endless Prosperity Program, 20 corn farmers from the Çukurova Region, 20 corn farmers from the Konya and Karaman Region and 10 corn farmers from the Aegean Region were selected according to the planting periods of the regions and the phonologies of plant development, and I visited their fields every month. These farmers, with whom we grew corn in their fields, generally asked for help in irrigation, fertilizing, corn worm, and cob worm. In addition to these queries, we tried to correct the mistakes that farmers had followed for years in applications such as irrigation and fertilization.

We have carried out studies in our farmers' fields that use row and drip irrigation methods, which can be measured according to climate and soil conditions, and aim to provide around 8,000 tons of water per hectares. Thus, we ensured high yields in irrigation and fertilization by changing the previous habits of our farmers.

Farmers were further acquainted with their land through the soil analyses we conducted. They learned agricultural terms about their soil such as pH, organic matter, cation exchange capacity, and soil tension. They recognized the types of fertilizers they should choose for the development of their products according to the characteristics of their soil, the characteristics of these fertilizers, the correct application time, and the correct application amount. Therefore, they adopted an efficient and sustainable fertilization regime.

As part of the 1000 Farmers Endless Prosperity Program, our farmers benefited from the suggestions and recommendations we provided, and their trust in our program increased. Each subsequent farmer meeting drew additional participants. While many new farmers were included in our program in 2020, various participation requests also came from the regions covered by the Program.

Although the COVID-19 pandemic caused anxiety for many of our farmers, we have always been by their side. We established this cooperation by providing communication environments such as online communication, messaging, phone and live broadcasts. We demonstrated that we are always with our farmers by sending health kits, to protect them from COVID-19. Our farmers included in the program never forget their awareness of how important it is to produce for everyone.



Please scan the QR code on your phone to watch the Digital Soil Analysis and Farm Budget video.

Program's Partners

**“BY INTEGRATING
THIS DIGITAL
TRANSFORMATION
BROUGHT ABOUT
BY AGRICULTURE
4.0 WITH THE 1000
FARMERS ENDLESS
PROSPERITY
PROGRAM, WE
DIRECT FARMERS TO
USE TECHNOLOGY
AND SCIENCE-
BASED AGRICULTURE
METHODS.”**

Tanzer Bilgen
CEO, Doktor

Agriculture 4.0, which at Doktor we define as the equivalent of Industry 4.0 in agriculture, is production made with informed decisions. The first step of the transition to Agriculture 4.0 is the collection of healthy data from the field; the second step is the user applications that enable the most appropriate decision to be made in line with current conditions and in accordance with scientific studies and artificial intelligence algorithms.

We understand that 70% of the farmers in Turkey have smartphones and that their actions of realizing information acquired via using various applications, the internet, and communication channels indicate that they are open to agriculture's digital transformation.

By integrating this digital transformation brought about by Agriculture 4.0 with the 1000 Farmers Endless Prosperity Program, we direct farmers to use technology and science-based agriculture methods. Thus, our farmers carry out their agricultural practices such as fertilization, irrigation and spraying in accordance with scientific methods. In addition, through digital communication channels and the 1000 Farmers Endless Prosperity Technical Support Lines, they can benefit from their knowledge by contacting our expert agronomists in corn. Thus, while obtaining better quality products from their soil, they increase their productivity and thus their profitability.

In parallel, the sensor networks, and the data collected from these networks, allow us to monitor in real-time our farmers' agricultural activities and the status of the fields. This framework of IoT (Internet of Things) devices, which communicate with each other or larger systems, will become increasingly widespread with the Program. It is also possible to reach new conclusions with this collection of data.

Program's Partners

**“AS CARGILL,
WE HAVE BEEN
WORKING FOR 155
YEARS TO ACHIEVE
OUR PURPOSE OF
NOURISHING THE
WORLD IN A SAFE,
RESPONSIBLE, AND
SUSTAINABLE WAY.”**



Murat Tarakcioğlu

Chairman of the Board and CEO of Cargill Food Middle East, Turkey and Africa

As Cargill, we have been working for 155 years to achieve our purpose of nourishing the world in a safe, responsible, and sustainable way. In fulfilling this vital mission, we focus on increasing productivity and the well-being of farmers, who are one of our most important stakeholders and the heroes of the food chain, supporting digitalization in agriculture, and consequently strengthening the farmers' livelihoods. As an international food company operating in 70 countries, we know that increasing farmer welfare is of great importance for agricultural production to be sustainable.

We buy local products, which are produced by Turkish farmers through enormous effort, and provide raw materials for many food products in our meals. We bring our farmers' crops to the tables and always work shoulder to shoulder with our farmers. Therefore, Turkey's farmers are more than welcome. In 2019, we launched the 1000 Farmers Endless Prosperity Program in order to enable farmers to produce more with fewer resources, to facilitate their production processes by providing digital agricultural tool support, and to be with them by providing 24/7 consultancy services.

We set out with enthusiasm and a strong belief that Turkish farmers are open to innovation. In the first year of the Program, we took the first step towards sustainable change by directly touching 1,072 farmers engaged in corn farming in Mersin, Adana, Konya, Karaman, İzmir and Manisa. We identified the steps we needed to take to increase the farmer's productivity and welfare and drew our roadmap. Our priority has been the implementation of knowledge-based agricultural techniques, the use of digital tools, and consultancy support. We

cooperated with the agricultural technologies company Doktor, the Financial Literacy and Inclusion Association (FODER), the Ministry of Family, Labor and Social Services, and academicians.

Believing that knowledge is power, we implemented training programs on the effective use of resources such as water, fertilizers and pesticides, increase of crop yield, strengthening financial literacy, increasing the awareness of cost calculation, and spreading occupational health and safety culture in the field. In order to continue our support to our farmers from planting to harvest, we established a hotline and ensured that they could reach agronomists whenever they needed. We also encouraged farmers to share knowledge and create a common knowledge pool. We established groups through online communication platforms so that farmers can share all kinds of suggestions and experiences with each other and cooperate.

Digital agricultural tools that facilitate the production process and directly affect productivity are one of the most important applications for increasing farmers' welfare. Therefore, these tools constitute an important part of our Program. We visited our farmers' fields with agronomists and conducted digital soil analysis. After the analysis, via messages sent to mobile phones from planting to harvest, we offered individual farming suggestions to farmers on correct fertilization, efficient irrigation, and disease control. We installed sensor stations in the fields of the Leader Farmers. Farmers regularly monitored soil, air, and plant growth through these stations and crop health monitoring.

The first year of the 1000 Farmers Endless Prosperity Program was very fruitful and productive. Within the scope of the Program, producers who fully implemented the suggestions we offered regarding their fields achieved an increase in productivity of up to 21%. This result showed us that, when the right investments are made and sustainable farming methods are supported, we can achieve a significant increase in productivity.

In our second year, we continue to identify new areas that will increase the welfare of farmers and shape our Program according to the needs of producers. In this year, we further expanded the scope of the Program. We also included sunflower farmers in Thrace, South Marmara and Central Anatolia in the Program. Waste management is important for sustainable agricultural production. We started 'Zero Waste Management in the Field', in cooperation with İTÜNOVA and PAGEV, with the slogan "Waste Harvest Starts in the Field," We provide training and operational support for the management of plastic and wood waste in the field. We provide training and operational support for the recycling of agricultural waste; we are working to create a model example in Turkey. Within the scope of the Program, we transferred our face-to-face training with farmers to the digital platform by saying **"There is Life at Home,"** due to the pandemic. We came together in live broadcasts with the intense participation of our farmers. In addition, we increased the number of visits by agronomists to the fields and the number of fields monitored by satellite. We are happy to carry out the longest-term and consistently supported social responsibility Program for farmers in Turkey with regular training, digital tool support

and continuous communication by reaching out to the largest number of farmers. We also forged a new trail with the 1000 Farmers Endless Prosperity Program. It became the first social responsibility program to be carried out in the agriculture and food sector and to be subjected to social impact research. When we calculate the positive impact of the 1000 Farmers Endless Prosperity Program on society, the environment, and the increase in welfare, we have seen that every TL 1 invested in the Program provides a social return of TL 2.53.

Indeed, it is our greatest desire that this social and digital transformation continues and accelerates. Through our Program, we aim for farmers to see what they can change in their lives with knowledge and technology-based agriculture. In order to introduce permanent change, we cooperated with farmers who are leaders in their region, who are open to innovation, and who possess good communication and management skills. These Leader Farmers, who also integrate and successfully use digital agricultural tools in traditional production processes, set an example for other farmers with their higher yields, fertile crops and reduced costs. In this way, we believe that sustainable agricultural practices will become widespread in other regions. The intense interest we receive from the farmers and the local community gives us hope that the Program will produce sustainable results that will be passed on to future generations. We are greatly motivated by the sincere and intense interest of our hundreds of farmers and their messages of thanks. With the strength we derive from this, our 1000 Farmers Endless Prosperity Program will continue to grow by providing training and consultancy services to more and more farmers every year.

Program's Partners

“WE ENCOURAGE THE USE OF AGRICULTURAL PRACTICES BASED ON TECHNOLOGICAL TOOLS AND KNOWLEDGE. WE SHOW FARMERS THAT THEIR PRODUCTION PROCESSES CAN BECOME EASIER AND, AS A RESULT, THEIR PRODUCTIVITY CAN RISE.”



Arzu Örsel

Corporate Affairs Director of Cargill Food Region of Middle East, Turkey, and Africa

As an international food company, we believe that farmer welfare must be maintained at a high level in order to ensure food safety for generations in the world, and we support digitalization in the agriculture sector. Since the production chain starts with the farmer, the better the farmer's welfare, the higher the productivity. For this reason, at Cargill, we carry out various projects around the world that focus on improving the well-being and productivity of farmers. We do this by

supporting farmers in producing with sustainable agricultural methods. Our goal is ambitious: by 2030, we will work to ensure that at least 10 million farmers are practicing sustainable agriculture.

Sustainable production points to production with fewer costs and sustainable growth for farmers. This is also essential for countries' long-term economic balance and uninterrupted access to food. At the same time, we can more effectively

conserve the resources of our planet through sustainable production. Based on these facts, we are determined to discover new ways of sustainable development, protecting the environment, and using natural resources effectively, armed with our 155 years of experience. We provide training to adopt sustainable farming practices and implementation support to encourage farmers from all over the world. This is also one of the most important focuses

of the 1000 Farmers Endless Prosperity Program, conducted this year with 1,175 corn and sunflower farmers in Turkey. We support farmers in saving money and using their resources in the most effective manner, by offering recommendations on specific irrigation, fertilization and spraying for their fields. We are working on a model example for recycling agricultural wastes to recycling facilities. We remind farmers that waste is not actually a waste, but a raw material that can be converted into a new value. We encourage the use of agricultural practices based on technological tools and knowledge. We show farmers that their production processes can become easier and, as a result, their productivity can rise.

The 1000 Farmers Endless Prosperity Program is the most comprehensive social responsibility Program providing regular support for farmers in Turkey. We support farmers in using digital agriculture tools. We provide continuous training on a range of topics and consultancy support from planting to harvest, and we ensure that our farmers can reach agronomists whenever necessary. We are on our farmers' side and we stand by them at all stages of production. We delivered health packages consisting of disinfectant, masks, visors and gloves to farmers and their families, who continue producing to meet the food needs of our community during the COVID-19 pandemic. Our Program, as well,

maintained momentum during this period. Although we could not meet in person with farmers, we met via online platforms. We called them, one by one, and inquired about their health. We determined the online training dates and times in consultation with the farmers. Thanks to the "Zero Waste Management System in the Field" training, we conveyed the importance of correct fertilization and irrigation techniques to farmers to increase productivity. Farmers asked questions in online training sessions and experts answered. The COVID-19 pandemic once again showed us the importance of supporting farmers in every way, and strength through unity under any conditions.

The 1000 Farmers Endless Prosperity Program is also the first program subjected to social impact research in the agriculture and food sector. In the first year of the Program, farmers' productivity increased by up to 21%, but we were not satisfied with this result. As we set out to create social impact as well as a productivity increase, we wanted to quantify the change that emerged due to our Program and its impact on our farmers. We cooperated with the independent audit and consultancy company Ernst & Young. It prepared a report with the internationally accepted Social Value Principles and Social Return on Investment (SROI) approach, to understand the social impact of a program

and turn it into financial value. Ernst & Young transparently demonstrated the distance we have covered in social change with our Program. According to this report, every single Turkish lira invested in the 1000 Farmers Endless Prosperity Program provided a social income of 2.53 Turkish liras.

We strongly believe that the social impact we created with the 1000 Farmers Endless Prosperity Program will lead to a commensurate increase in the welfare of Turkey and Turkish farmers and their families. We predict that these practices will become widespread, thanks to other farmers who see the proven results of sustainable and knowledge-based farming practices. We believe that production processes, made easier with the role of digital agricultural tools, will also motivate the new generation of farmers. There are young and encouraged farmers who are included in the 1000 Farmers Endless Prosperity Program. Their feedback demonstrates that innovative farming practices make farming attractive to the youthful population. Every farmer who labors for their field and sees their prosperity increase will in turn support the preservation of the future of agriculture. We will continue to work to contribute to a sustainable increase in prosperity, as we have done thus far.



*“We ensured high yields in
irrigation and fertilization by
changing the old habits of our
farmers.”*

Nihat Mıdıköğlu

*The 1000 Farmers Endless Prosperity Program Chief
Agricultural Engineer, Doktor **

** See page 92 for detailed information.*

The Sustainability Management Approach of the Program

With the 1000 Farmers Endless Prosperity Program, we aimed to enable farmers to use digital platforms, through which they can apply science- and technology-based knowledge while developing agricultural practices, and to improve their knowledge and awareness levels in agricultural information, financial profitability management, natural resources and environmental management via various trainings.

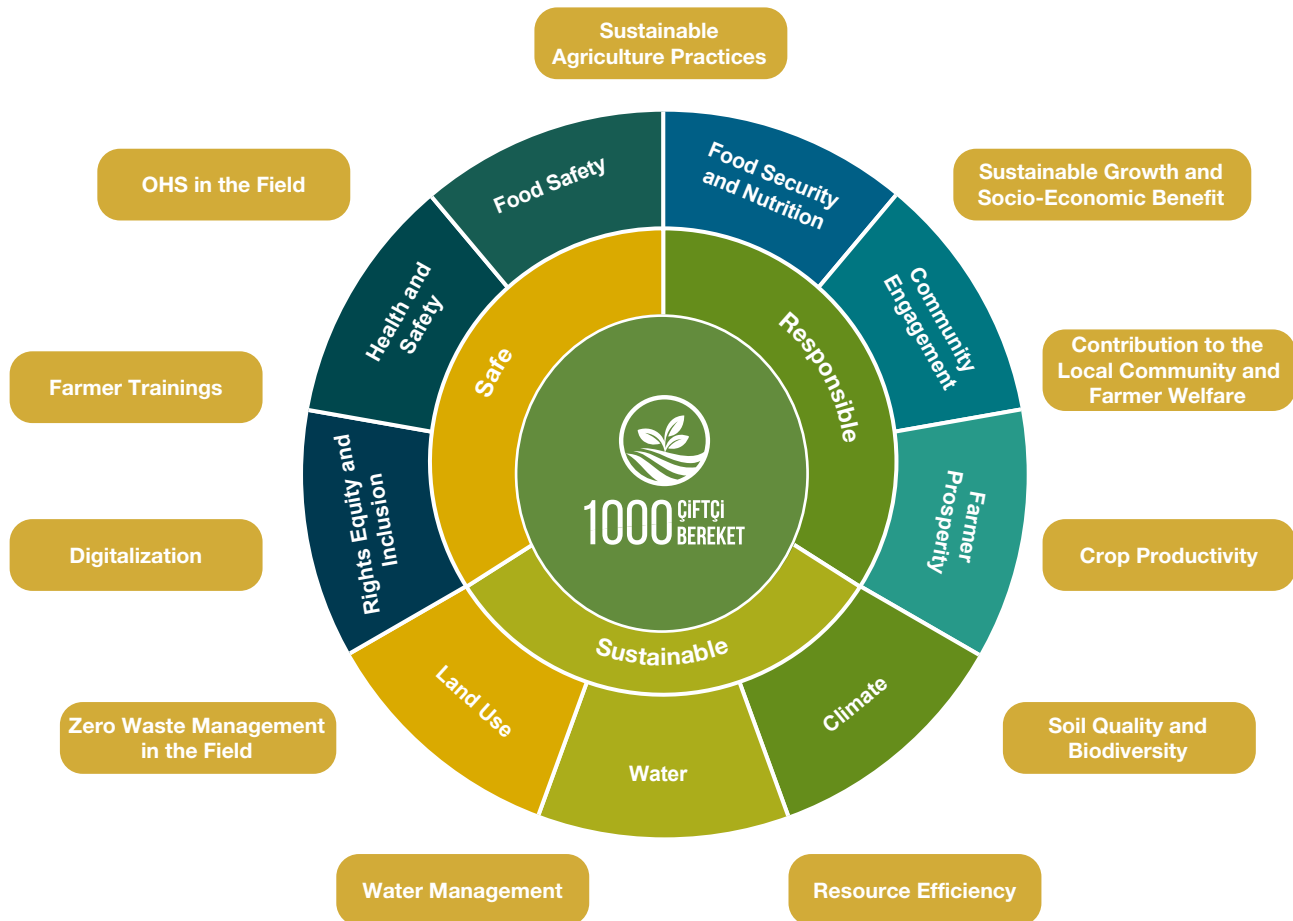
The farmers' training and the activities of digitalization in agriculture are at the foundations of targets to transform sustainable agriculture practices in Turkey, as an agricultural country. In this regard, with the 1000 Farmers Endless Prosperity Program, we aimed to enable farmers to use digital platforms to apply science- and technology-based knowledge while developing agricultural practices, and to improve their knowledge and awareness levels with regard to agricultural information, financial profitability management, natural resources and environmental management through various trainings.

In line with the activities we provide to farmers within the scope of the Program, we maintain the efficacy of our economic impact with the raw material savings we provide to farmers, as well as our social impact with the farmer development we support in line with various training and digital applications, and our environmental impact through our contribution to waste management applications and protecting soil quality and biodiversity.

We manage the material topics of our Program with our Safe, Responsible and Sustainable business approach, which is our global sustainability approach. In this context, you can view the details of the practices we have implemented in line with our material topics under the headings of Sustainable and Responsible Business Practices and Contribution to Local Community in the report.

To access Cargill Global's sustainability approach, please click [here](https://www.cargill.com/sustainability).

<https://www.cargill.com/sustainability>



Sustainable and Responsible Business Practices

Farmers who benefited from the services and digital tools provided in the 1000 Farmers Endless Prosperity Program, and who executed all the suggested actions, reaped an increase of up to 21 % at harvest time.

The farmers of the 1000 Farmers Endless Prosperity Program had a fruitful year and increased the yield in their fields by producing within the scope of agriculture's digital transformation. These farmers benefited from various trainings, digital soil analyses, smart irrigation with sensor station, crop health monitoring, and the Technical Support Line practices offered with the Program. As well, they applied the right irrigation, fertilization and application pesticides program specific to their fields, saving resources such as water and fertilizer. By following pesticide application recommendations, these farmers reduced the risk of disease and contributed to the preservation of soil quality and biodiversity. The farmers who benefited from the services and digital tools provided in the Program, and who executed all the suggested actions, reaped an increase of up to 21% at harvest time.



Tekirdağ Sunflower Harvest Visit

To access Cargill Global's approach to environmental impact in sustainable corn farming, please click [here](https://www.cargill.com/sustainability/corn/corn-environmental-impact).

<https://www.cargill.com/sustainability/corn/corn-environmental-impact>

Digital Soil Analyses

In interviews with the Leader Farmers, they stated that they achieved higher yields compared to previous years by using less fertilizer, thanks to fertilization programs specific to the field.



The main factor in soil pollution caused by agricultural activities is the use of incorrect products and incorrect application amounts. Pesticides and fertilizers applied in excess through faulty application methods accumulate in the soil and cause the death of microorganisms that increase soil vitality and productivity, resulting in toxicity and pollution in the soil.

Physical and chemical changes in agricultural soil can be signs of pollution and disease. The easiest way to prevent soil pollution is through soil analysis. In the soil analyses, the number of nutrient elements in the soil are analyzed, and the types and amount of fertilizers are determined according to the nutrient element required by the soil. Soil analysis performed with

traditional methods results in a long process of two to three weeks, with additional cost to the farmer. With handheld digital soil analysis devices, results can be obtained in less than 10 minutes. Nine different parameters in the soil (soil texture, pH level, organic matter ratio, nitrogen (N), phosphorus (P_2O_5), potassium (K_2O), clay ratio, cation-exchange capacity, soil temperature) are measured by means of near-infrared rays.

The soil sample taken from the field is scanned five times in the digital soil analysis device and transmitted to the data bank (Cloud). With the Digital Soil Analysis Model, the data is transformed into report format, and the soil analysis results are uploaded to the mobile application in a few minutes. A farmer who performs a digital

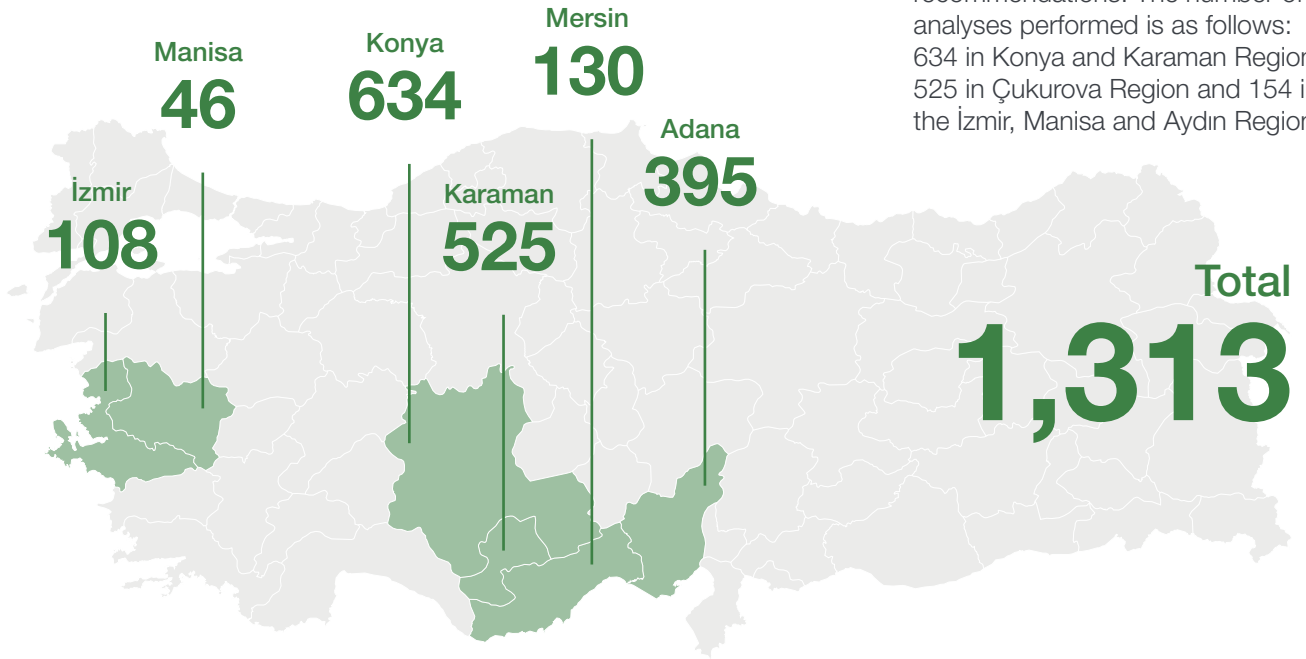
soil analysis can view the analysis result and fertilization suggestions via the mobile application downloaded to their mobile phone. In addition, the digital soil analysis report is sent as a PDF to the e-mail address registered on the mobile application.

According to the results of digital soil analyses, fertilization programs are created specifically for the field, enabling farmers to choose data-based fertilization methods instead of traditional methods by assisting in terms of fertilizer selection and the amount of fertilizer per decares. Digital soil analysis empowers farmers to know their fields better and take faster action, thus preventing resource waste, ensuring raw material efficiency, and protecting biodiversity.

Sustainable and Responsible Business Practices

Digital Soil Analysis for 1,072 Farmers and Its Reginal Breakdown

Within the scope of the Program, in 2019, we organized field visits with 22 agronomists; we conducted 1,313 “Digital Soil Analysis” for 1,072 farmers. According to the results of the analyses, we provided farmers with field-specific fertilization recommendations. The number of analyses performed is as follows: 634 in Konya and Karaman Regions, 525 in Çukurova Region and 154 in the İzmir, Manisa and Aydın Regions.



The results of soil analyses show that, while values in the Aegean Region are in the acceptable range, the pH and potassium levels in the Central Anatolian Region and the pH, potassium, and organic matter levels in the Çukurova Region are above the acceptable boundary values. With the fertilization program we created in line with these values, we enabled farmers to choose scientific fertilization methods. In interviews with the Leader

Farmers, they stated that they achieved higher yields compared to previous years by using less fertilizer, thanks to the field-specific fertilization program.

In 2020, we conducted 1,002 “Digital Soil Analysis” for 1,175 farmers in 12 cities. Of the analyses, 131 were suggestions for sunflower production and 871 for corn production.

Agricultural Sensor Station



What is the Agricultural Sensor Station?

Agricultural Sensor Station sensors are 1.5-meter long stations that measure soil temperature and moisture 30 cm below the soil, and air temperature and relative humidity from two levels of 30 cm and 85 cm above the soil. Collected every hour, the data are transmitted to the database through Narrowband-Internet of Things technology and the data are processed and interpreted. Farmers can instantly access data such as soil temperature and humidity and air temperature and relative humidity, as well as precipitation forecasts, thanks to the mobile application they can download to their mobile phones. They complete their registrations by drawing the field boundaries via the mobile application registered with their phone number, name

and surname. Through the mobile application, farmers can monitor the soil and weather conditions in the field, as well as monitor irrigation needs and disease risks specific to the soil type and the crop.

Within the scope of the Program, suggestions regarding the amounts of irrigation and spraying, specific to the region's climate, the soil condition and the product type, are offered through sensor stations. The risk of diseases specific to the plant species being grown is calculated with hourly data from the field; when risk rises, warnings and notifications are sent to the mobile application. The data measured at the sensor stations are combined with the hyper-local weather forecast and a 48-hour spraying

availability calendar is prepared. In addition, by continuously monitoring the humidity, the frequency of irrigation is determined to keep the soil at a minimum moisture level and the grown product is protected from stress and strain. In this way, effective irrigation and spraying are achieved.

For the crop registered in the mobile application, there are descriptions and images about crop-specific diseases on the system, as well as information necessary to combat the disease in terms of licensed active substances, duration of action and correct dosage. The mobile application alerts farmers for fungal diseases when the temperature and humidity reach the values set for the selected crop. For example, leaf blight,

Sustainable and Responsible Business Practices

Due to climate change, the average grain corn yield in Çukurova in the 2019 season was 1,320 kg/da; farmers provided sensor station application support within the scope of the Program achieved 1,507 kg/da yield.



In the case of farmers' sensor station application support, the average yield reached 1,651 kg/da.

smut, root and root collar rot diseases were defined for corn products, while verticillium wilt, white rot and root and root collar rot diseases were defined for sunflower crops. Disease risks are determined by mathematical models using the weather and humidity information in the field.

Within the scope of the Program, we established sensor stations that provide Lead Farmers with instantaneous data about their fields. Farmers monitored the temperature and humidity of the air and soil in line with the instantaneous data from the sensors, and accessed irrigation needs, disease risks, appropriate spraying times for pesticides, and seven-day weather forecast information obtained from open sources. Thus, they made effective irrigation and spraying decisions specific to their fields and crops, without having to go into the fields.

In the first year of the Program, we established 10 sensor stations; three in Adana, three in Konya, one in Karaman, two in Mersin and one in İzmir, affecting an area of 186.9 hectares. In the second year of the Program, we expanded our scope, providing a total of 20 sensor stations; six in Adana, six in Konya, two in Karaman, three in İzmir, one in Mersin, one in Manisa and one in Ankara, affecting an area of 266.2 hectares.

In the 2019 season, due to climate change, the average grain corn yield in Çukurova was 1,320 kg/da; the farmers provided with sensor station application support within the scope of the Program achieved 1,507 kg/da yield. In the case of farmers with sensor station application support, the average yield reached 1,651 kg/da in the 2019 season.

To access Cargill Global's approach to water resources management, please click [here](https://www.cargill.com/sustainability/priorities/water-resources):

<https://www.cargill.com/sustainability/priorities/water-resources>

Crop Health Monitoring



What is Crop Health Monitoring?

The images taken by the satellites as they pass over the field every day are interpreted according to the cultivated crop, the phenological period of the crop and the regional climate data. Through those images, three different maps are created and presented on the Crop Health Monitoring mobile application. Users can regularly follow the development of their fields by examining these maps together and comparing maps of different dates.

To monitor crop health in the field, farmers can view their fields from the satellite using three different methods: the field control map, the health map and the change map.

1. Field Control Map: The areas of the field with the most critical development problems can be easily displayed; the regions that you prioritize before going to the field can be marked on a single map.

2. Health Map: The development of the plants in the field can be monitored every day by following color changes on the map, and problematic areas can be determined without the need to traverse the entire field. Late development regions are noted, and the risk of overlooking problems, such as various diseases or irrigation channel blockage, is eliminated.

3. Change Map: Weekly changes in the field can be tracked. The changes are reflected on the map as progress (blue color) or regression (purple color). The change map allows tracking whether the actions applied to low-performance areas in the field are working or not. The change map also monitors whether a crop is entering its harvest cycle.

Sustainable and Responsible Business Practices

In the first half of the second year of the Program, we monitored 1,029 hectares of corn and sunflower planting areas via satellite, with the Crop Health Monitoring application we provided to 74 farmers, including Lead Farmers.

Within the scope of the Program, we provided farmers with the opportunity to track the development and health of their crops in the field through the “Crop Health Monitoring” application. With the instant data from the satellite, farmers could take early measures against diseases and pests in weather conditions such as heavy rainfall and frost through the application, the local weather forecasts and the early warning system, and they were able to monitor their fields with various methods such as the control map, the health map and the change map for daily monitoring of operational efficiency.



In the first year of the Program, we provided 21 farmers, including Lead Farmers, with the Crop Health Monitoring application, and we monitored 302 hectares of corn cultivation area via satellite. As a result of regular monitoring and controls of the satellite images by agronomists, we informed the relevant farmers regarding problematic areas identified within an area of 50.1 hectares and ensured that necessary measures were taken.

In the first half of the second year of the Program, we monitored 1,029 hectares of corn and sunflower planting areas via satellite, with the Crop Health Monitoring application provided to 74 farmers, including Lead Farmers. We held live broadcasts from digital platforms at three different times with the participation of expert agronomists. We provided 195 minutes of online Crop Health Monitoring application training to 20 farmers in total.

Agricultural Training



Within the scope of the 1000 Farmers Endless Prosperity Program, we conducted regular agricultural training with Doktor's agronomists during field visits and farmer meetings in order to increase farmers' agricultural knowledge. We informed farmers about the use of fertilizers and pesticides, irrigation methods, disease and pest control during field visits and farmer meetings.

In the first year of the Program, we made 172 field visits to 52 farmers and provided a total of 32 hours of agricultural training:

six times in the Çukurova Region, eight times in the Central Anatolia Region, and twice in the Aegean Region. With the 1000 Farmers Endless Prosperity Program, we aim to increase the number of farmers who receive regular agricultural engineer support through the training and field visits we provide.

During the COVID-19 period, when we were experiencing a global health crisis, we carried out trainings within the scope of the Program on a digital

platform. We also conducted live broadcasts at different times during the pre-planting and pre-harvest periods with the theme "There is Life at Home," in which farmers participated interactively. With our online training segments held in three sessions during the pre-planting period, we provided a total of 210 participants with 305 minutes of online training. In the pre-harvest period, we provided 425 minutes of online training for 238 participants in five different sessions. Thus, we provided 730 minutes of online training service to 448 farmers in total.



Manisa Sunflower Harvest Visit

Sustainable and Responsible Business Practices

In the second year of the Program, we implemented the “Zero Waste Management in the Field” project to solve farmers’ waste management problems and add value to the waste as raw material.

Zero Waste Management in the Field



While moving forward to support sustainable agriculture, encourage social and digital transformation, and increase the productivity and welfare of farmers through the 1000 Farmers Endless Prosperity Program, we implemented the “Zero Waste Management in the Field” project, in the Program’s second year, to solve farmers’ waste management problems and add value to the waste as raw material. Our study is carried out within the İTÜNOVA Technology Transfer Office Project “Zero Waste Management in the Field” under the supervision of Prof. Filiz Karaosmanoğlu, and in cooperation with PAGEV. We aim to recycle plant wastes and wastes such as stalks, straw, roots, cobs, husks, table, and other packaging wastes,

especially plastics, bags, sacks, drums, and similar packaging wastes, which are released throughout the life cycle from seed to crop, by the legislation. In developing the “Zero Waste Management System model in the field,” we aim to expand this model in Turkey to provide added value to the recycling sector and energy production.

Sustainable agricultural production is achieved by realizing land-waste-energy-water management most effectively, using the best agricultural mechanization available, and utilizing all resources efficiently. The technical measurement of this sustainability success and the effects of agricultural production on the environment and climate change is conducted with the

Life Cycle Assessment (LCA; ISO 14040-ISO 14044) study.

With the aim of measuring the potential effects of LCA products on the environment during the whole life cycle, systematic evaluation of the environmental impact of the product under consideration or comparison of products; calculation of all environmental impacts on air, water, and soil; determination of the aspects of the effects between life cycle stages and the environment; determination of the impact of material consumption and emissions on local people, the region and the world and a comparison of the health and environmental effects of two or more products should be carried out by comparing with the “from source to end-use” approach. Thus, the effects of carcinogens,

respiratory organic and inorganic substances, climate change, the ozone layer, radiation, ecotoxicity, acidification and eutrophication, land use, mineral use, and fossil fuel use are quantitatively evaluated, and options are determined for reducing all environmental effects and improving production.

Accordingly, we aim to determine crop carbon footprints by performing the LCA study of corn and sunflower farming from seed to market, in accordance with the input-output data of 2020, which will be compiled from the field by the Doktor field team of the 1000 Farmers Endless Prosperity Program. The inputs of the field are soil, water, energy, fertilizers, and plant protection products; outputs are corn, sunflower, waste, and gases that cause direct and indirect air pollution and climate change. With the interpretation of LCA outputs, we will reach solution suggestions for more efficient resource use and better land-water-energy-waste management. We will share these suggestions with farmers before the 2021 season.

Within the scope of Zero Waste Management in the Field, we conducted farmer training as the first step. We informed our farmers under the headings of national waste legislation, the impact of agricultural production on the environment and climate change, resource efficiency for sustainable agricultural production, water-energy-waste management, life cycle assessment in corn and sunflower cultivation, determination of wastes in the field, and the importance and necessity of waste management during Prof. Filiz Karaosmanoğlu's training titled "Waste Harvest Starts

in the Field." We emphasized the necessity of minimizing environmental risks by using technology in the field, reducing negative impacts in the life cycle, and making all resources – especially soil – regeneratable for the future for sustainable consumption. We shared the importance and necessity of low-carbon footprint corn and sunflower farming with a zero-waste management system in the field for sustainable agriculture. We conducted a highly interactive training with questions and answers from farmers.

In accordance with 2019 field data, we realized a study with Doktor on waste projected to be generated in fields in 2020. Then, along with Prof. Filiz Karaosmanoğlu, and PAGEV, we carried out the waste mapping study of our country in the fields, determined the raw material potential for the waste sector, and started the Zero Waste Management System Model in fields. It was prioritized to send waste from the field to recycling and/or energy recovery facilities with the lowest possible carbon footprint and costs.

For this model, which will be an important first for our country, we selected 544 corn farmers and 99 sunflower farmers from the Konya and Karaman regions for a pilot study. We contacted the farmers by phone and carried out on-site activities. Added value was created in the circular economy by purchasing and transporting waste plastics from fields in accordance with the legislation and entering the licensed collection-separation-processing chain.

The plastic packages of plant protection products are included in the hazardous waste class.

For this reason, we determined that additional solutions of the facilitative legislation for the management of hazardous waste plastics in the field would benefit farmers, and we started communication with the official authorities. Burning wood wastes as stubble in the field is also dangerous in terms of human health, environmental pollution, and contributing to climate change. Wood waste is a domestic-national-renewable resource for bioelectricity-bioheat-biocold production and holds an essential position within the scope of the National Energy Efficiency Action Plan: Agricultural Actions. We will achieve environment and climate-friendly agriculture by transforming waste plastics and wood waste into national wealth in the circular economy, in line with the National Waste Management and Action Plan and the Zero Waste Project of the Ministry of Environment and Urbanization.

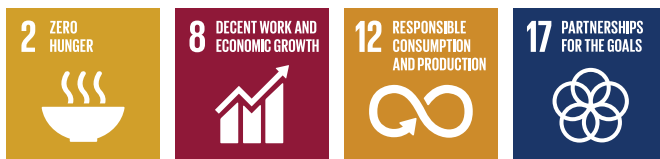
Prof. Filiz Karaosmanoğlu, PAGEV President Yavuz Eroglu, the 1000 Farmers Endless Prosperity Program Project Team, the Department of Plant Protection Products of the Ministry of Agriculture and Forestry, the Department of Zero Waste and Waste Processing of the Ministry of Environment and Urbanization, and the Energy Efficiency and Environment Department of the Ministry of Energy and Natural Resources are offering solution options from the field.

We are also investigating the potential of waste and other agricultural production (beets, wheat, potatoes) residues located near farmers registered in the 1000 Farmers Endless Prosperity Program and including them in the 2020 harvest records.

Sustainable and Responsible Business Practices

In the trainings, we create a perspective for farmers in terms of selling the product in online marketplaces and securing price offers, and we take the issue of marketing their products to a wider audience.

Digital Agriculture Market (DITAP)



The Ministry of Agriculture and Forestry launched the Digital Agriculture Market (DITAP), which will carry the entire chain from food production to consumption into a digital environment. Thanks to the Digital Agriculture Market – an important project initiated for digitalization in agriculture – all buyers and producers will be able to engage on the online platform. The Ministry of Treasury and Finance, the Ministry of Commerce and The Union of Chambers and Commodity Exchanges of Turkey (TOBB), together with all the stakeholders of agriculture that

also support Digital Agriculture Markets, will meet on a single platform. DITAP, which will ensure that agricultural supply and demand meet with the “digital marketplace” approach and contracted agriculture practices, will enable producers to earn additional income and find agricultural products of the quality desired by the agricultural industry, and for consumers to access agricultural products more economically.

In 2020, declared as the “Digital Year of Agriculture” by the Ministry of Agriculture and Forestry, we provided training for the registration of our farmers on the DITAP online platform and for the use of the platform in the second year of the Program. In the training, we aim to expand farmers’ marketing opportunities, in terms of putting the crop on the digital market and evaluating price offers.

In the second year of the Program, we provided DITAP training to 238 farmers on an online platform.



Contribution to Local Community

Farmer training, which we primarily address within the scope of the Program, covers social and financial issues as well as agricultural training, in a manner that will enable farmers to expand their social and economic welfare.



Tekirdağ Sunflower Harvest Visit

We believe that a primary role for inclusive sustainable development will be possible with the socio-economic development of society. In this context, we are aware that the education and development of society is one of the focal points. Based on this, farmer training, which we primarily address within the scope of the Program, covers social and financial issues as well as agricultural training,

in a manner that will enable farmers to increase their social and economic welfare. We also encourage farmers to cooperate with each other using various communication tools and to act together on joint purchases and sales and similar issues. As the welfare of our farmers increases, the welfare of our society increases, and we contribute to local development.

Financial Literacy Training



We included financial literacy as part of the Program's scope in consideration of the positive impact on farmers, who can look at their land from a long-term business perspective.

In cooperation with the Financial Literacy and Inclusion Association (FODER), we aimed to enable farmers to achieve business efficiency by approaching it with a more holistic perspective, as well as achieving high yields from the soil by combining technology with agriculture. Accordingly, in the first year of the Program, we provided training to 314 farmers on financial literacy and access to different financial instruments and products. In the second year of the Program, we provided training to 210 participants during the pre-planting period and 434 participants during the pre-harvest period through the online platform.

In line with the survey studies within the scope of the Program, we analyzed the procedures, payment methods and financial instruments farmers use in purchasing raw materials. With these analyses, we discovered that, currently, more than half of the farmers purchased raw materials with either cash, harvest loans from the dealer, or harvest loans from contracted companies, and without any banking tools. We aim to raise awareness via the training and field visits conducted within the scope of the Program and consequently increase the number of farmers who use banking tools and who can meet their needs with the use of more than one financial instrument.

As a result of the financial literacy training we provided in the first year of the Program, the proportion of farmers using financial instruments reached 76%.



As a result of the financial literacy training we provided in the first year of the Program, the proportion of farmers using financial instruments reached 76%.

To access Cargill Global's approach to farmer welfare, please click [here](https://www.cargill.com/sustainability/priorities/farmer-prosperity):

<https://www.cargill.com/sustainability/priorities/farmer-prosperity>

Contribution to Local Community

In the first year of the 1000 Farmers Endless Prosperity Program, we organized Occupational Health and Safety (OHS) training to contribute to the creation of a safe and healthy working environment in the field, to create awareness on occupational health and safety and first aid.

Occupational Health and Safety Training



Due to the unique and traditional working conditions of the agriculture sector, it ranks among the sectors where occupational accidents occur the most. The possibility of encountering chemical, physical, hygienic and ergonomic risks and hazards is considerable, and many workers are unaware; therefore, we believe that occupational health and safety is a matter of high priority. In line with this understanding,

in the first year of the 1000 Farmers Endless Prosperity Program, we organized OHS training to contribute to the creation of a safe and healthy working environment in the field, to create awareness on occupational health and safety and first aid. Together with academicians and the OHS experts of the Ministry of Family, Labor and Social Services, we provided approximately one hour of OHS training to 402 farmers.

In the training provided within the scope of the Program, we provided information to raise the awareness of farmers on health and safety issues such as first aid, safety precautions during the application of pesticides, and prevention of accidents caused by the uninformed use of tractors and agricultural machinery. In our meetings with farmers, we received feedback confirming that this information was useful.

Digital Communication Channels

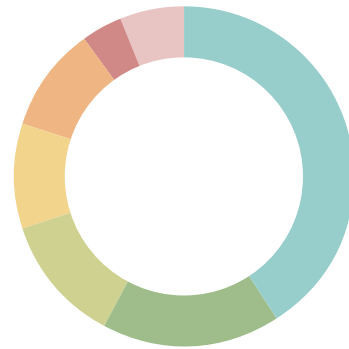
In the first year of the Program, the percentage of inquiries to the support line by region and subject are as follows:

Technical Support Line

Within the scope of the Program, we established the 1000 Farmers Endless Prosperity Support Line (444 5 175) so that farmers can reach expert engineers 24/7 and get support. Thus, farmers were able to contact expert agronomists with only one call and receive consultation services for all kinds of agricultural problems. In the first year, we made more than 40,000 minutes of calls through the support line. In the second year, we provided 10,958 minutes of expert engineer support.

By region:

- 41% Konya
- 17% Adana
- 12% Karaman
- 10% Manisa
- 10% Mersin
- 4% Denizli
- 6% Other



By subjects:

- 38% Fertilization
- 24% Application Registration
- 15% Other
- 9% Irrigation
- 7% Cultivation
- 7% Harvest

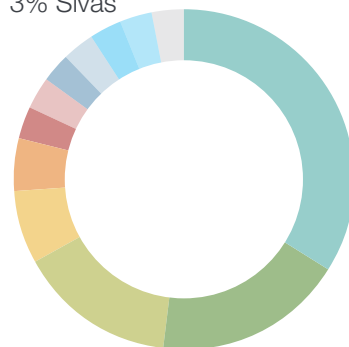


In the second year of the Program*, the percentage of inquiries to the support line by region and subject are as follows:

Farmers exchanged ideas through communication channels and the 1000 Farmers Endless Prosperity Program Technical Support Line, including Doktor agronomists, where the farmers shared their knowledge and experiences with each other, mainly on the following issues: fertilization, disease - pesticides (cob wolf, corn wolf, leafworm and green wolf), irrigation, spraying, weed control, soil analysis, harvest, product information, product selection (seed, etc.), cultivation, and maintenance.

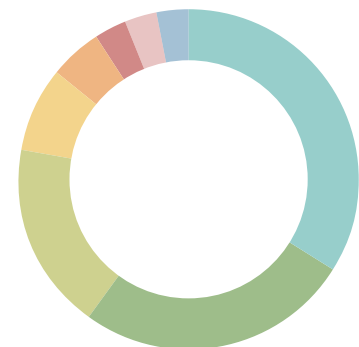
By region:

- 34% Konya
- 18% Ankara
- 15% Adana
- 7% Karaman
- 5% Sanliurfa
- 3% Balikesir
- 3% Gaziantep
- 3% İzmir
- 3% Kocaeli
- 3% Manisa
- 3% Mersin
- 3% Sivas



By subjects:

- 34% Other
- 26% Fertilization
- 18% Cultivation
- 8% Disease and Pesticides Control
- 5% Harvest Information Request
- 3% Seed Selection
- 3% Irrigation
- 3% Weed Control



* Activities up to 30 September 2020 have been reported.

Contribution to Local Community

In the first year of the Program, 239 people participated in the online communication groups created in 10 locations.

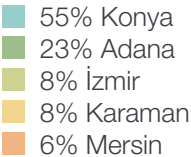
Online Communication Groups

We created online communication groups to actively utilize farmers' technological communication tools within the scope of the 1000 Farmers Endless Prosperity Program, to increase communication between farmers, and to provide information sharing among all farmers.

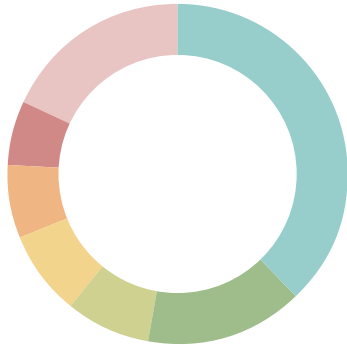
In the first year of the Program, 239 people had participated in the online communication groups created in 10 locations; 155 questions were asked and answered, and 6,809 messages and 1,203 photos and videos were shared with the agronomists via online communication groups. With the online communication groups and the Support Line implemented as a part of the Program, we aim to encourage farmers to actively use digital communication channels and integrate digitalization into their business practices and social lives.

In the first year of the Program, the percentage of questions in online communication groups by region and subject are as follows:

By region:



By subjects:

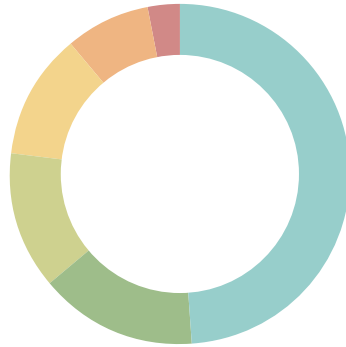


In the second year* of the Program, 61 questions were answered through online communication groups. Questions from farmers were about their concerns on fertilization, cultivation, spraying, diseases, pesticides, harvesting, prices, irrigation, and mobile applications. In the second year of the program, 378 people had participated in online communication groups established in eight locations.

In the second year* of the Program, the percentage of questions in online communication groups by region and subject are as follows:

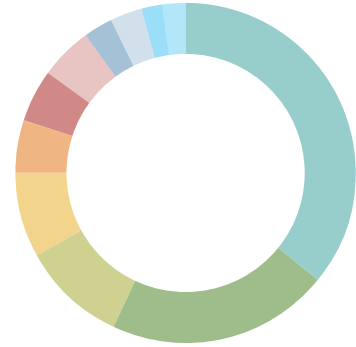
By region:

- 49% Konya
- 15% İzmir
- 13% Karaman
- 12% Ankara
- 8% Adana
- 3% Manisa



By subjects:

- 36% Fertilization
- 21% Diseases and Pesticides Control
- 10% Irrigation
- 8% Cultivation
- 5% Other
- 5% Weed Control
- 5% Grant-Support Exchange Information (Finance)
- 3% Mobile Application
- 3% Soil Analysis Interpretation
- 2% Harvest Information Request
- 2% Natural Disaster



* Activities up to 30 September 2020 have been reported.

Contribution to Local Community

With the aim of increasing farmers' profitability, without compromising the quality of their crops, via the appropriate timing and correct pricing method, we included Electronic Warehouse Receipt (EWR) and licensed warehousing systems training within the scope of the 1000 Farmers Endless Prosperity Program.

Training on Electronic Warehouse Receipt and Licensed Warehousing Systems



Electronic Warehouse Receipt (EWR) and licensed warehousing systems are of great importance for ensuring crop safety and maintaining its quality.

With the aim of increasing farmers' profitability of farmers, without compromising the quality of their crops, via the appropriate timing and correct pricing method, we included Electronic Warehouse Receipt and licensed warehousing systems training within the scope of the 1000 Farmers Endless Prosperity Program. We aim to raise the awareness of farmers about licensed warehousing and EWR and generate a positive impact across all economic, environmental, and social areas, particularly regarding income generated through increased crop productivity.

When we analyze the time intervals of when farmers included in the Program offer their crops for sale, we found that the rate of farmers who store their crops and sell them at a higher profit when the harvest times is lower than that of those who sell at the time of harvest or immediately after harvest. In the training we organized at farmer meetings to improve this situation, we emphasize the importance of the Electronic Warehouse Receipt and the licensed warehousing system, which are important for facilitating agricultural trade, ensuring crop safety, maintaining the quality, and ensuring that the classes and grades of crops are determined by authorized classifiers. With




Tekirdağ Sunflower Harvest Visit

the training, we aim to increase farmers' profitability, ensure higher crop performance without compromising quality and ensure more accurate pricing. Accordingly, in the first year of the Program, we trained 402 farmers on Electronic Warehouse Receipt and licensed warehousing systems. In the second year of the Program, we provided training to 196 farmers on an online platform.

EWI training is the system whereby farmers can put crops prepared and stored in exchange for crops delivered to licensed warehouses up for sale in authorized commodity exchanges. The system enables farmers to integrate into their business practices a strategy by which they can reduce their costs in sales/market access activities and perform cost optimization in general.

In our interviews with Lead Farmers, we received feedback that farmers who have implemented this strategy, storing the product for a certain time, are achieving financially positive results.



“According to our soil analysis results, we became conscious about organic fertilization and started using organic fertilizers.”

Âdem Ocak

*1000 Farmers Endless Prosperity Program Corn Farmer, Konya/Cumra**

** See page 47 for detailed information.*



Cargill in the World

Our 155,000 employees work ceaselessly across 70 countries to achieve our purpose of nourishing the world in a safe, responsible, and sustainable way. Cargill is committed to helping the world thrive.

Our 155,000 employees work ceaselessly across 70 countries to achieve our purpose of nourishing the world in a safe, responsible, and sustainable way. Cargill is committed to helping the world thrive.

Every day, we make farmers connect with markets, customers with ingredients, and people and animals with the food they need to thrive.

We combine 155 years of experience with new technologies and insights to serve as a trusted partner for food, agriculture, financial and industrial customers in more than 125 countries. Side by side, we are building a stronger, sustainable future generations.

We provide insights to our partners



Data analytics



Market expertise



Risk management



Financial solutions

We transform raw materials into finished goods



Animal nutrition and health



Food ingredients



Animal protein



Bioindustrials

We move products around the world



Roads



Rail



Rivers



Oceans

155
years of
experience

155,000
workers

70 countries

Our Operation in the World

Food Ingredients & Bio-Industrial

Along with our 24,000 employees around the world, we deliver our innovative product and service portfolio in the food and industrial areas to our customers in the food and beverage manufacturers, out-of-home consumption, and retail sectors.



Metals & Shipping

We offer physical supply and risk management solutions in iron and steel markets to our customers. With our wide fleet and global footprint, we provide our customers with alternative solutions to meet their needs in ocean freight.



Protein & Salt

In many countries of the world, we process cattle, poultry meat and egg products and offer them to food producers, and the out-of-home consumption and food retail sector. For the salt product used in different industries such as food and agriculture, we continue our activities in various countries, especially in the USA, Canada and China.



Agricultural Supply Chain

Through connecting grain and oilseeds producers with related sectors in many countries where we operate, we offer farm services and risk management solutions, in addition to processing and distribution.



Animal Nutrition

Through combining 120 years of experience in the field of animal nutrition with the experience we have gained in 40 countries, we supply feed and premix products to livestock and fish breeders, feed producers and distributors. We offer our customers digital modeling and formulation services as well as innovative animal nutrition solutions acquired through our industry-leading research.



Sustainability at Cargill

At Cargill, we are anchored in our guiding principles and we embrace a wide range of approaches to keep the food and agricultural system strong. The following are foundational to the way Cargill operates around the world:

- **Demonstrating integrity, ethics and transparency**
- **Operating sustainable supply chains**
- **Protecting human rights**
- **Advancing inclusion and diversity**
- **Ensuring safety for people, animals and our food system**

We build our sustainability understanding within three main components:

- **Nourishing our world**
- **Protecting our planet**
- **Enriching our communities**

Nourishing our world

Agriculture can meet the world's increasing food demand. The critical issue of climate change brings with it the need to improve global food security, grow the most suitable crops in the most productive places, and transport food from places of abundance to places of scarcity. Investments in innovation and training will give farmers the tools they need to increase productivity and meet tomorrow's food demand. We know the world's farmers are resilient entrepreneurs. We support farmers at all levels of production as they adapt to changing growing conditions, consumer demands and nutritional needs.

Protecting our planet

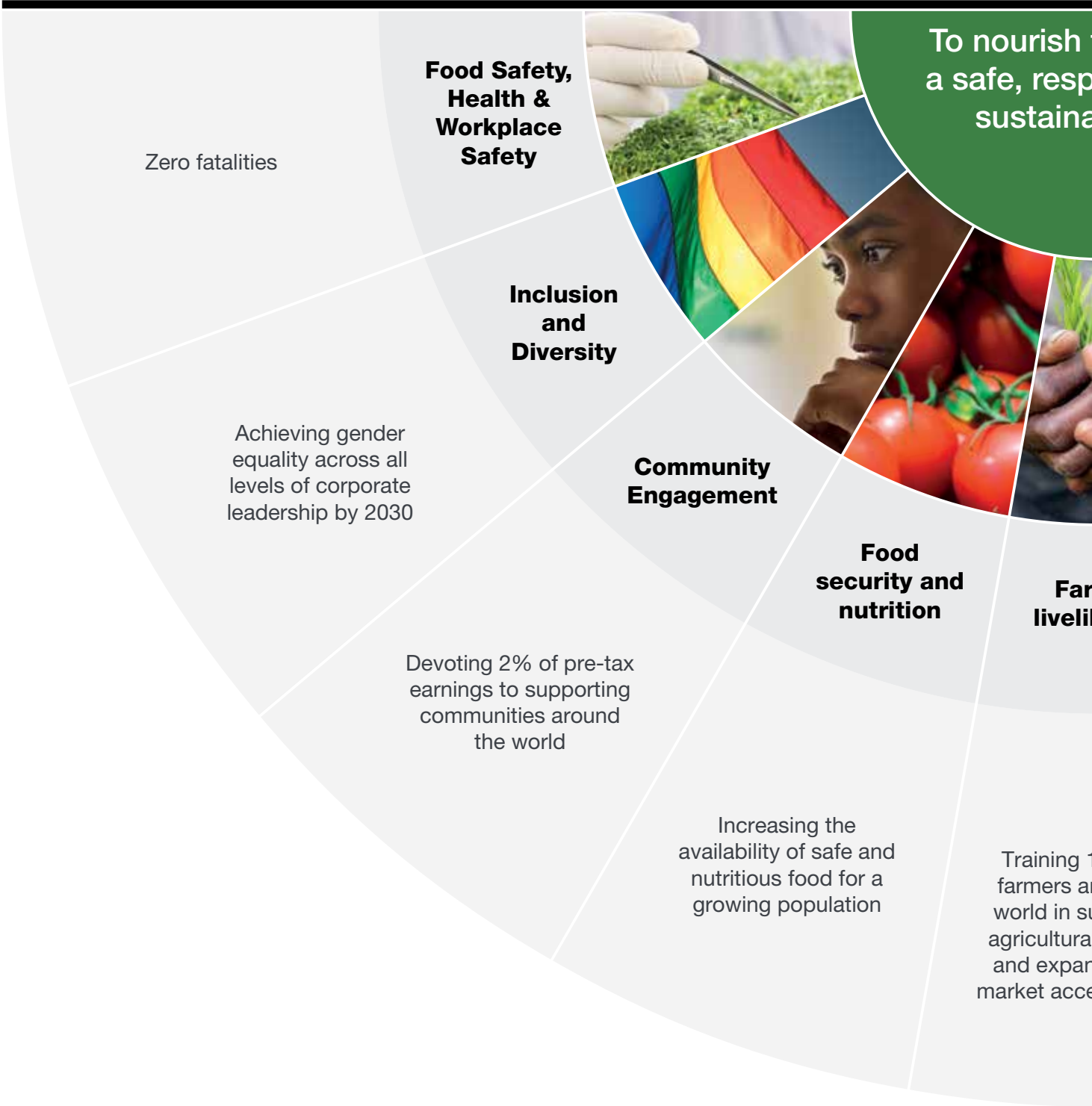
We protect forests, promote sustainable agriculture, reduce our environmental impact and help farmers adapt to a changing climate. We work to conserve water, improve water quality and promote access to clean water.

Enriching our communities

We build vibrant communities through economic development, charitable giving, employee volunteerism and partnerships. We contribute to the vitality of communities through taxes, wages and investments in infrastructure, including ports, storage buildings and facility improvements. Our businesses, facilities and employee-led groups support civic and non-profit organizations in local communities.

We are committed to feeding the world in a responsible way, reducing our environmental impact, and improving the communities where we live and work. We are passionate about our mission to be the global leader in nourishing people and operating responsibly across the agricultural, food, industrial and financial markets we serve.

Sustainability at Cargill





Cargill in Turkey

**Our journey began in Turkey in the 1960s
has grown day by day for 60 years
alongside our confidence in our country.**

We diversify the activities begun 60 years ago for the food sector in Turkey, thanks to the new investments we make every year, the new technologies we bring, and our R&D studies. We offer our wide portfolio of more than 100 innovative products to various sectors in both food and animal nutrition and bio-industry. We provide raw materials and intermediate products to many sectors such as food, animal feed premixes, packaging, textiles, construction, and energy with a total of 670 employees in four factories and three offices in Turkey.

As a company that does not operate on agricultural land, but uses agricultural crops as input in Turkey, we are proud to work with the hardworking local farmers who meet all of our agricultural raw material supply. Through our Corporate Social Responsibility Program, namely the 1000 Farmers Endless Prosperity Program, we are also pleased to reach out to 2,247 farmers in two years and to increase their welfare and productivity by providing them with free access to various agricultural consultancy, training, and digital tools.

While producing raw materials, semi-product and environmentally friendly industrial products from domestic sources for a sustainable world, we carry out projects that contribute to the Sustainable Development Goals. We serve our wide-ranged customers with value-added products in our country and export from Turkey to more than 70 countries in five continents by supporting the Turkish industry through domestic production. We supply domestic transformer fluid produced in the Dilovası facility to Turkey's first local and national electric train system. We supply high-tech industrial starch produced in Orhangazi to the domestic market and export to 18 countries. Furthermore, in our facility, we are replacing the transformer fluid production that came to a standstill in India during the COVID-19 pandemic, and we continue our transformer fluid export to 20 countries in the Asia, including China.

We strive to develop projects based upon integrating with society, providing support for current needs, and generating social benefit, wherever we live and work. We create sustainable value with the Cargill Primary School, the Cargill 112 Emergency Service and the Family Health Center in Orhangazi, and we contribute to the future of the food industry through our Vegetable Fats & Oil Laboratory in the Balıkesir University Department of Food Engineering. We carry out different projects with various non-governmental organizations and run volunteering and donation programs with the active participation of our colleagues.

Our journey, begun in Turkey in the 1960s, has continued to grow day by day for 60 years alongside the confidence we have in Turkey, and we have run all Cargill's operations in the Middle East and Africa with a Turkish team from the Istanbul Headquarters for the last six years.

Our Operations in Turkey



Food & Beverage

While we stand out as one of the world's leading food ingredient manufacturers, we have been serving our innovative products and solutions in the food and beverage industry in Turkey for 60 years. Through using local products grown in the fertile soil of our country, we produce native and modified food starches and sweeteners in our Orhangazi Corn Processing facility, vegetable oils in our Turyağ facility in Balıkesir, which we incorporated in 2014 and food emulsifiers in our Dilovası facility. These raw materials and all products which are produced in our facilities operating at occupational health and safety standards with high food safety, and sustaining our investments in both technology and R&D based on the principle of permanent business excellence, come to our dining tables in many end products such as baby biscuits, soup, ice cream, custard, pastry and beverage.

By compounding Cargill's 155 years of global experience in food ingredients with our local knowledge, we are pleased to serve almost all actors in the food industry and to offer plant-based raw materials used in pharmaceutical products and nutritional supplements.

With our product and service portfolio, which we have enriched by focusing R&D and innovation at the center of our business practices, we offer innovative solutions to our food and beverage producer customers for trends and their needs. In the last six years, we brought a fresh perspective by offering more than 80 new products to the ready-made food and out-of-home consumption sectors in the field of vegetable oils.

On the other hand, sugar reduction solutions - along the global food trends that we both follow closely and transform into products and solutions for our customers - show that trans fat

free and vegetable-based diets will gain more importance. At Cargill, we carry out operations in these directions. Establishing our pilot facility oil with the latest technology at our Turyağ facility located in Balıkesir - a first in Turkey - our R&D efforts are focused on the new products and next generation fats & oils. For example, we introduced the Turyağ Maestro series, a healthier and tasteful bakery oil, which contains locally produced vegetable seed oils that we blend with coconut oil. Another of our ongoing projects involves the substitution of animal proteins with plant-based pea proteins, either partially or completely. In this way, we will offer healthier alternatives that will expand our appeal to both vegetarian and flexitarian consumers.

At the pilot facility located in our Orhangazi production facility, which we will commission in the near future, we will support our food producer customers in differentiating themselves in the market and offer innovative products and integrating local taste & texture with turnkey approach. Thanks to this facility, we aim to speed up and facilitate our customers' new product trial processes in line with market trends and with our turn-key customer solutions. Thus, we will lead to the development, in Turkey, of the formulas for many products that currently must be imported from abroad.

Our Operations in Turkey



Bio-industrial

As Cargill, we have operated in the field of bio-industrial products in Turkey since 2014, and we produce alternative products to petroleum-derived semi-product used in the manufacturing industry. These products, which are more environmentally friendly and have a lower carbon footprint compared to petroleum-based products, are used as raw materials and intermediate products for our country's economy in many critical sectors, including dielectric fluids, construction, textile, asphalt, consumer goods, paints, coatings and lubricants. Cargill's plant-based bio-industrial product portfolio appears in every aspect of our lives.

Hundreds of innovative products, such as transformer fluid, fatty acids, hydrogenated oil, cooling oils and fluids, vegetable wax, bio-polyol, and asphalt additives, are extracted from facilities such as the corn, sunflower, and soybean grown in our country, and are produced in the Dilovası facility established by Cargill in 2014 and exported to 70 countries on five continents.

The first local transformer fluid produced in Turkey by Cargill, in 2019, is used to improve the insulation and cooling performance of transformers. Our transformer fluid, which allows transformers to withstand higher temperatures and last longer, is supplied to global energy companies and worldwide transformer manufacturers engaged in manufacture in Turkey. We also produce the first high-tech starch of our country in the Orhangazi Corn Processing Facility. This starch is used as a binder and strength-increasing raw material in many sectors such as textiles, construction and the production of packaging, especially paper and corrugated cardboard – an area that has become even more important with the growth of e-commerce.

The need for industrial starch is increasing in foreign markets as well as in the domestic market. Currently, an average of one of every two packages produced in Turkey uses our industrial starch, which we also export to 18 countries.

Animal Nutrition

Starting its activities in the animal nutrition field in Turkey in 2015, Cargill brought the Provimi brand, one of the leading animal nutrition brands in the world, to our country. Since 2018, we produce performance-enhancing feed premixes for poultry and cattle breeders, fish producers, and integrated facilities at our production facility in Hendek. In addition to the animal feed industry, we provide both raw materials and local solutions to egg, chicken, milk, and meat farms.

The animal feed premixes produced in our Hendek factory – which is the only facility with GMP+ and FAMI QS feed safety management system certification in Turkey – are also exported to eight countries, including Egypt, Kazakhstan, and Greece.

60

years in Turkey



4

production
facilities



+650

employees



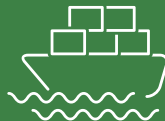
120

innovative
products



+70

Export to more
than 70 countries



500

More than USD
500 million
investment



2019 Performance Tables

Economic Performance of the Program

Table 1: Planting Area and Number of Farmers by Region

Corn Production	Number of Cultivation Areas	Cultivation Area (hectare)	Number of Farmers
Çukurova Region	626	11,746	469
Konya & Karaman Region	808	14,149	498
İzmir & Manisa & Aydın Region	136	593	105
Total	1,570	26,488	1,072

Table 2: Production and Increase by Region

	Çukurova Region (kg/da)	Konya & Karaman Region (kg/da)	İzmir & Manisa & Aydın Region (kg/da)
2018	14.8	14.0	67.7
2019	13.7	14.6	71.3
Production Increase (%)	-7.7*	4.9	5.4

* Due to extreme precipitation in 2019, above-average temperatures, and the 45-day delay in the planting period, the average amount of production in the general region dropped by 10.8%, while the average production of farmers included in the Program decreased by 7.7%.

1 Hectare (ha) = 10 Decares (da) = 10,000 square meters (m²)

Social Performance of the Program

Table 3: Number of Farmers by Age Group

Number of Farmers	Under 30	30-50	Over 50
Çukurova Region	28	198	243
Konya & Karaman Region	10	200	288
İzmir & Manisa & Aydın Region	16	53	36
Total	54	451	567

Table 4: Number of Farmers by Level of Education

	Primary-High School Level	Vocational School-University Level
Number of Farmers	785	287

Table 5: Training Hours Provided to Farmers by Region and Subject Type

	Financial Literacy Training	Agricultural Techniques and Technologies Training	Occupational Health and Safety Training	Electronic Warehouse Receipt (EWR)
Training hours (Person x hours)	314	1,432	402	402

Environmental Performance of the Program

Table 6: Fertilizer Quantities by Region

	Fertilizer Amount Before Program (kg/da)	Fertilizer Amount After Program (kg/da)
Çukurova Region	60 kg - 20.20	25 kg - DAP
Konya & Karaman Region	60 kg - 20.20	25 kg - DAP
İzmir & Manisa & Aydın Region	60 kg - 15.15.15	25 kg - DAP

Table 7: Planting Area by Irrigation Type in the Program

	Planting Area According to Drip Irrigation Type (hectares)	Planting Area According to Surface Irrigation Type (hectares)	Planting Area According to Sprinkler Irrigation Type (hectares)
Çukurova Region	290.5	11,555.4	0
Konya & Karaman Region	13,055.9	599.3	525.6
İzmir & Manisa & Aydın Region	40.2	552.8	0

Table 8: Number of Soil Analyses Performed by Region

	Number of Soil Analyses
Çukurova Region	525
Konya & Karaman Region	634
İzmir & Manisa & Aydın Region	154
Total	1,313

Table 9: Crop Health Monitoring Area via Satellite by Region

	Crop Health Monitoring Area via Satellite (hectares)
Çukurova Region	129.1
Konya & Karaman Region	146.0
İzmir & Manisa & Aydın Region	27.3
Total	302.4

1 Hectare (ha) = 10 Decares (da) = 10,000 square meters (m²)

