



# PREVENTION OF FOOD LOSSES IN THE FIELD





In order to prevent these losses in the field, the use of high quality seeds, fertilization, pesticides usage and harvesting at high level quality should be supported besides the cultivating soil well. The most important point is training of farmers about necessary subjects and providing technical support to implement agricultural practices more consciously. Also the arrangements about land use and land consolidation should be conducted.





***So what should be done to prevent such losses in the field?***

## **1. Soil Cultivation**

- The suitable seed-bed should be prepared for the plant varieties to be produced.
- Weed control should be done and the necessary control methods should be used.
- Plant residues on the soil surface should be mixed into the soil.
- Besides beginning of a high level quality production, soil cultivation should be done properly in order to control erosion caused by water and wind .





## 2. Certified Seed

### *Why certified seed should be used;*

- It grows strongly and does not contain any impurities and foreign seeds.
- The ability of getting benefits from the soil water and nutrients is higher than non – certified ones
- Since all certified seeds were grown in the same time, there will be no length difference and gaps in the fields and wastage of product is not observed.
- Ripening will be at the same time on all plants, that is why, so ease of harvest is provided.
- Uniform and high quality products are obtained.
- Since certified seeds are more resistant against some diseases which may be caused by soil and seeds, the losses will be at minimum level.





### 3. Fertilization

The most important issue in determining the amount and kind of fertilizer for the soil is “the result of soil analysis”. The field should necessarily be analyzed and fertilization should be done according to these results. **Using more fertilizer does not mean that it will be more yielding.** By doing such a conscious fertilization,

- Raising the yield strength of the soil, obtaining a higher yield per planted area is provided,
- Continuity of soil productivity is provided,
- The chemical structure of the soil, is compensated by increasing the nutrient content,
- The amount of organic matter in soil and microorganism activities are increased and better growth area is obtained for plantation.
- Nutrients which are displaced from the soil are recycled back to the soil.







## 4. Pesticide Usage

In the past, different methods have been used for agricultural contention. While some of these methods have been successful, some of them created negative effects. Therefore, agricultural contention is an important point for farming.

- First of all, it is necessary to have information about cultural contention methods before applying pesticide to field.
- Having enough knowledge and equipment before pesticide contention is another key point.
- If it is agreed to apply pesticide contention at the area where agricultural activities are conducted, agricultural contention should be in required amount and should not influence the natural life.
- Not to damage human, animals and natural life, the selected pesticides should be targeted directly to pests.
- The time between last applying pesticide and beginning of harvest should be correctly calculated and human health should be taken into consideration.





## 5. Harvest

During the harvest, farmers' careless and inexperienced technics cause the damage of (crush, torn, dehiscre, puncture etc.) parts of plants like roots, buds, tubers, bougs, leafs, stems and fruits. Then the shape of the product is deformed and the plant loses water which causes various pathogens to attack and disease the plant. Finally, these pathogens deteriorate, mold and wither the plant. Key points for the right harvest are;

- First of all harvest time should be set well. The weather on harvest days should be dry and not rainy, the soil should not become clay. So the products are not contaminated and not absorb too moisture. If the weather is dry, there are less spores of pathogens on around. So the possibility of infection is to be minimized.
- The chosen harvest methods should be appropriate for the plant and soil.
- To minimize the product losses in the field, agricultural mechanization should be preferred more at harvest.





## 6. Training and Technical Support

Every year, the losses of product in the field increase all over the world. One of the main reason of this increasing is farmers' unconscious techniques for growing and harvest. Farmers' techniques that only targeted to high yield, cause to decrease quality of foods and also decrease the strength in field. For this reason, necessary training and technical supports should be given to farmers to minimize the losses of food in the field.







## **7. Soil Protection and Land Use Law**

Due to the inheritance law of Turkey; the land have been divided between inheritors thus; very small pieces of land have been occurred. The limited use of mechanization in agriculture carried out in small lands, especially unavailability of harvesting machine, increase food losses in the field considerably.

The division of land have been prevented by recent technical regulations, the amount of usable lands have been increased by way of land consolidation. In addition, the agriculture carried out in large lands accelerate transition to machine harvesting.





## *So What We Do As **Tat**?*

As Tat, we use and support the '**contract farming**' application for the supply of raw material, to remove the losses in the fields. As a result of seed and seedling plant plans, we have minimized the losses of field by creating a steady harvest period. The planting period untill harvest is kept under control by theoretical and practical trainings of farmers.





## Contract Farming

Contract farming is defined as a production and marketing model based on an agreement between the farmers and companies. This agreement install a responsibility to the farmer as about planting of the product, a specific planting area and performing production. At the same time the company guarantees to purchase the product that is obtained in certain circumstances. Within this method were used;

- We eliminate the anxiety of the harvesting which is produced crops in field through provided warranty to the farmer.
- Due to the conditions of contractual production, we provide high quality raw material supply and field strength in accordance with the quality standards.





## Seed and Seedlings Planning

We distribute the certified seeds and the seedlings plants produced from certified seeds to our contracted farmers. Distribution is done by taking into consideration of the climatic factors and necessary planting-harvesting plans. Through these plans, by regulating the harvest period, we minimize losses at the fields of our contracted farmers.





## Harvest Organization and Transport Planning

Our harvesting organization is planned in accordance with the production capacity and ripening periods. During this process, agricultural engineers and agricultural land attendants make the land-product controls and product transport program.

We also provide the necessary support to our contracted farmers about supplying harvesting machines and transportation vehicles.







## Provided Trainings and Supports to Farmers

Provided trainings to our farmers;

- Seminars organized at pre-production season,
- Observations made with farmers in the fields,
- Specific fertilizing and pesticide applying programmes for fields,
- Defining of the appropriate harvesting time,

As a technical support;

- Supplying pesticide applying machine,
- Supplying harvester,
- Providing transport.





***THANK YOU***

