

Good Agriculture Practices in Egypt



Hesham Allam ph.D



Almost 70 percent of total landowners possess less than one feddan.

The property of 94 percent of landowners is, on the average, less than four feddan each.

What should be included in a GAP?

- **To Food Safety to protect consumers**
- **Environmental issues that protect soil, water, air, native vegetation and animals**
- **Sustainability of the operations**
- **Worker's health and safety**

GAP

Environment of
the
producing area

Pre-harvest

Postharvest

Soil

Air

Water

Energy

Environment of the producing area

Soil

- Encouraging improved crop rotation strategies to improve the soil characteristics and reduced the soil borne diseases



Soil



- **Encouraging the use of organic fertilizers (manure, compost, cover crops) at the appropriate time in the rotation**

Air

Management of livestock manures can reduce losses of ammonia and other gases to the atmosphere.

irrigation management



- Drip irrigation system is implemented for smallholders' in the newly reclaimed land and convert the flood irrigation to drip irrigation in the Delta.
- Implementation of such a technique saves a relatively high proportion of the irrigation water. It helps in reducing the total amount of fertilizers

Renewable energy and agricultural



Solar energy can cut a farm's electricity and heating bills.

In Egypt we are applying the solar energy for irrigation management.

Pre- harvest

Trees pruning



Pruning is important for the successful production of both deciduous and evergreen fruit trees.

Trees pruning

Pruning is important for

- To remove undesirable growth .
- To remove diseased, dead, or abnormal plant tissue.
- To stimulate flowering and/or fruit production of old plants.
- To develop a specific plant form, this is approved by the Zoning Division, prior to pruning.
- To improve appearance and health of a plant.

Fruit thinning

The purpose of fruits thinning is:

- Increasing fruits size to be suitable for export
- Improving fruits homogeneity in size, shape and color
- Removing the deforming fruits.



Use of physical treatments to minimize fruits defects



vermicomposting and vermiculture in Egypt



Vermocomposting, an operation for the decomposition of agriculture waste by earth worm to form manures that preserve the fertility of soil.



MICRO-GARDENS for Enhancing Nutritional Status of Rural Families

- **To Produce of healthy food without polluting harmful chemical fertilizers and pesticides.**
- **Recycling of household waste, which harm the environment and make use of them in agriculture, such as empty cans, empty bottles and the work of the aesthetic form.**



Fruit and vegetable seedlings grafting



grafting contributes to:

- **To produced healthy plants**
- **To resistance to soil borne diseases**
- **To improve fruit quality and yield**

Protected cultivation

Protected cultivation is the most contemporary approach to produce mainly, horticultural crops qualitatively and quantitatively



Soilless culture

Soilless culture is the modern cultivation system of plants that use either substrates culture or water culture through nutrient solution.



Green food from green roofs

- Produce in house vegetables and fruits
- Food poverty alleviation
- Assist elders (psychologically)
- Encouragement of students in schools



Producing a new vegetables cultivars

- **Seeds with good quality**
- **disease resistance**
- **lack of physiological problems, i.e., cracking, blossom-end rot**
- **market demand**
- **Adopted to Egyptian climatic conditions.**



Postharvest operations

Maturity indices



Maturity indices carefully defined for the good quality and post-harvest life of the commodity.

Harvesting



Harvesting should be made with proper handling method to avoid mechanical damages

Packing and packages





Pre-cooling and storage



Pre-cooling operation is essential to remove field heat and decrease fruits temperature as that of Shipping.



Cold storage is necessary for extending the consumption period of fruits and for transportation to long distance.

Transportation

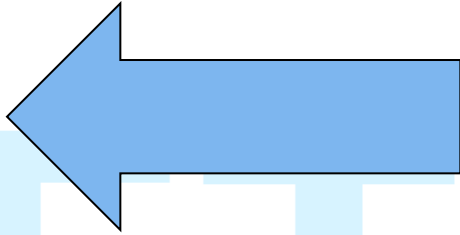


Egypt has a good network of roads sufficient to transport fresh fruits and vegetables.

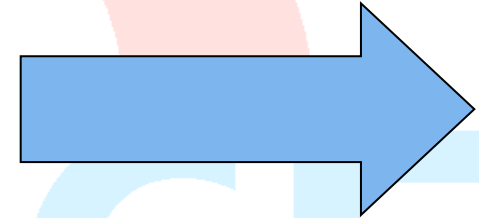
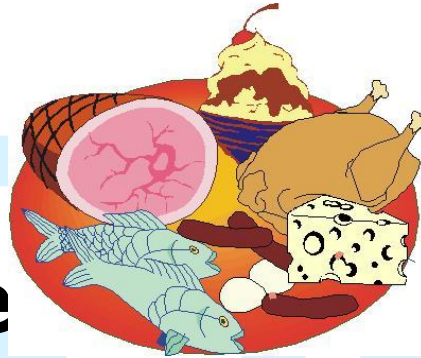
Traceability system

- In Egypt , traceability has been considered as one of the most urgent and important issue in fresh produce industry,
- Traceability became a main requirement for importers in Eu markets

Traceability system



Tracing: The ability to recreate the history of a product in the food chain



Tracking: The ability to trace the destination of a product in a food chain

Recommendations

1- Increased number of implementation sites of GAP in farms and local homes, with technical support from regional organizations.

2- Raise the capacity building to assure availability of professionally trained staff in food quality and safety assurance to work in both public and private sectors of the food supply chain.

Recommendations

3- Boosting establishment of Regional farmers Cooperatives.

4- Enhancing Vegetable seedling production, with close supervision, to improve private production of high quality local seedlings.

Recommendations

- 5- Establishment of 3 solar-powered irrigation sites, on commercial scale (minimum 30 m³/h water) in order to be as module .
- 6- Encouraging micro-gardening in order to recycle household waste to keep environment in good conditions.

Recommendations

7- Regional training workshop for implementation and application of traceability system.

8- All these efforts aimed at forming an regional academy for best agriculture practices.

Thank You

