

Seed potato production in Egypt

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Introduction

Potato is one of the most important crops grown in Egypt for local consumption, export and processing. The area cultivated with potatoes about 212,000 acres producing about 2.2 million tons, with an average of 10.5 tones per acre.

In order to optimize potato productivity and quality, various aspects of production chain should be considered in an integrated way. Theses aspects include potato seed quality, soil quality, irrigation management, fertilization techniques, forecasting of pests and diseases, as well as determination of proper planting dates.

The lack of sufficient quantity of quality seed is a major bottleneck to improve potato productivity and quality.

Egypt achieved positive results in improving quality seed potato through the implementation of the rules and regulations of CASC (Centre Administration for Seeds Testing and certification), phytosanitary authority and the project of elimination of brown rot disease.

The main steps to produce certified seeds in Egypt

1. Using basic potato seeds (class SE or E) imported from EU countries according to national standard and regulation for imported potato seed.
2. The imported variety which will be produced must be registered in Egypt to ensure productivity and quality under Egyptian conditions.
3. The cultivated farm must be certified as pest free area from brown rot disease (PFA)
4. The farm should not be less than 5 acres.
5. Taking into consideration distance between different varieties of seeds potato (5 meters or physical barriers) and distance between potato seed production and commercial production should be as follows:
 - 1000 m from north and west Side
 - 500 m from South and East side

6. A triple rotation should be implemented in the cultivated farm.
7. During all the stages of crop the field is under full supervision of CASC inspectors to ensure that the crops cultivated according to the seed potato production conditions and to the Egyptian standards.
All technical official forms are done according to the procedures and administrative modalities established by the CASC.
8. The CASC inspector regularly visits the fields at least three times during cultivation, divided as follows:

1. The first field inspection visit after 30-35 days from plantation
2. The second visit 50-55 days after plantation.
3. The third visit 75 days after plantation.

These visits are to ensure that the following:

- The crop rules have been well respected.
- Check crop condition.
- Check the crop isolation
- Assess the variety purity and the sanitary condition
- To advise the necessary action as rouging.

(All the inspection results must be recorded on the technical official forms)

- Taking tubers samples for testing according to the following rules:
 - Collecting samples from the field just after the complete distraction of leaves, the sampling are made per field corresponding to one variety.
 - Size of the sample must represent the size of the farm, these samples have to be sent to the CASC laboratory for control (virus& bacteria)
 - If the lab test proves that the seed potatoes are accepted according to the Egyptian standard and regulation it can be certified and labelled as seed potatoes.

9. All steps of packing ,labelling and storing in cold stores (3-5°C , humidity not less than 80%) are done under the full supervision of CASC and phytosanitary authority.
10. to release the potato seeds to be cultivated as winter crop is done under full supervision of CASC and phytosanitary authority.

Social and economic impact of good quality potato seed on small farmers in Egypt

The percentage of small farmers in Egypt (less than 5 acres) is more than 80% percent of the land holding, the majority of this land is mainly in the Delta region, Valley& Fayoum. Potato production is considered as cash resources for the small farmers, but the return is still limited for them due to lack of sufficient quality seed which is an obstacle to improve potato productivity and quality.

As Agrofood is producing good quality of certified potato seed recognized with high productivity and high quality to meet the European standard of the supermarket chain, Agrofood agreed with some NGO associations to co-operate with their members “small farmers” for the production of potato for export and processing.

The role of Agrofood:

- Register their farms according to the Organic Standard to secure food safety standard as requested by the EU-market.
- Appoint well trained managers to implement and supervise all the steps of production from the land-preparation and cultivation till the harvest of the product.
- Agrofood is training the small farmers in co-ordination with the appointed Managers to apply integrated crop management system to achieve the right productivity and quality.
- Agrofood supply its production of quality seed potato from varieties requested by EU supermarkets.
- Agrofood is receiving the product after harvest at its certified packing house to select and grade the product to be exported to EU-market.
- The price that the farmers are receiving for their potato crop is higher than the average market price for about 25-30% as incentive for their good quality.

Conclusion:

Using this system successfully helps the small farmers to improve their economic and social standard and in the same time securing for Agrofood the supplying of the agreed programs with the supermarket (win-win situation).