



Report on the Outward Mission to Egypt on Seed Potatoes 1 - 3 April 2008

Organisations visited

- Ministry of Agriculture & Land Reclamation, First Secretary's Office
- Ministry of Agriculture & Land Reclamation, Potato Brown Rot Project
- Ministry of Agriculture & Land Reclamation, Central Administration for Seed testing & Certification
- Trade & Investment Section, British Embassy, Cairo
- Egyptian seed potato importers

Executive Summary

An outward mission to Egypt was undertaken by Dr Pieter van de Graaf (SG-SASA) and Mr Mark Prentice (Potato Council) with the aim of further developing contacts with Egyptian plant health officials and of discussing the possibility of relaxation of the import conditions for seed potatoes in the longer term. Discussions were held with the First Secretary for Agriculture and other high-ranked officials from several Departments of the Ministry of Agriculture & Land Reclamation involved in potato import and production in Egypt. The meetings have led to a better understanding of the status of potato production in Egypt and the reasoning behind the current Egyptian seed potato import conditions. A proposal for further cooperation between Egypt and Scotland was made by the Egyptian government. This would involve gathering more information on the importance of certain potato diseases under Egyptian conditions which could then form the basis for more realistic import tolerances for seed potatoes in future. The outward mission will hopefully be followed by a second inward mission to Scotland of Egyptian plant health officials during the summer of 2008. The views from British seed exporters involved in the Egypt market will be sought on these issues.

Purpose & Objectives

The purpose of the outward mission was to make further personal contact with key plant health officials in Egypt, in particular those involved with setting phytosanitary import conditions for seed potatoes, with the objectives:

- to inform them regarding the classification, phytosanitary control and high health status of British seed potatoes;
- to gather more information about the official procedures in Egypt with regard to phytosanitary inspections and conditions for imported seed potatoes;
- to discuss the future development of the potato industry in Egypt;
- to discuss the possibility of more relaxed import conditions for seed potatoes in future Ministerial decrees in Egypt.

Background

Egypt is by far the largest importer of Scottish seed potatoes outside the EU (about one third of the total tonnage exported in 2007/08) and the volume traded to this country has been increasing year on year. Egypt imports 60 to 65,000 t of seed potatoes annually and, for the 2007/08 season, more than 22,000 t of these were from Scotland.

Imported seed is planted in Egypt in January. The harvest from these crops (in May) is either used as ware for local consumption or stored as seed for three to four months to plant crops for ware export. Ware potatoes for export are harvested from December onwards. Egypt annually plants around 200,000 feddan (84,000 ha) with the second generation seed which produces around 2.5 million tonnes of ware. Of this, around 450,000 t is exported as fresh ware to the EU while another 150,000 t is processed before exportation.

Brown rot (caused by the bacterium *Ralstonia solanacearum*) has been a major issue for Egyptian potato exports for many years. Attempts by the Egyptian government to control the disease began in 1970s. However, it was only after the EU banned Egyptian imports as a result of brown rot infection, that Egypt, with help from the EU, established its Potato Brown Rot Project (PBRP). The EU market is now open only to Egyptian potatoes coming from approved Pest Free Areas (PFAs) for brown rot as established by the PBRP. Many of these are newly created fields in the desert, away from the traditional growing areas along the River Nile.

Egypt's phytosanitary import tolerances for seed potatoes are laid down by Ministerial Decree and based on advice from the Egyptian Seed Committee which consists of government officials and scientists as well as members of the trade in Egypt. Two Egyptian officials involved in seed potato import policy, the Head of the Central Administration of Plant Quarantine (Dr Ali Soliman) and the Director of the Plant Pathology Research Institute (Prof. Dr Salah El-Dein Sherif), visited Scotland from 21 to 23 November 2007. This inward seed potato mission from Egypt was the first step in developing relationships between the Scottish and Egyptian governments in this area. At the time, the Egyptian delegation indicated their willingness to be open to negotiation regarding the import conditions and showed an interest in receiving a mission from Scotland in Egypt. As a result, an Outward Mission from Britain to Egypt of representatives from the Scottish Government (Dr Pieter van de Graaf, Export Liaison Officer) and the Potato Council (Mr Mark Prentice, Seed & Export Manager) took place from 1 -3 April 2008 to further develop the newly established seed potato contacts.

Summary of visits

British Embassy– 1 April 2008

Present: **Mr Keith Melville**, Trade & Investment Director; **Mrs Mona Fahmi**, Trade & Investment Officer; **Ms Sandy Iskander**, Trade & Investment Assistant.

A brief meeting took place at the British Embassy to discuss the potato visit and British trade with Egypt in general. Mr Prentice and Dr van de Graaf explained the size and importance of the Egyptian seed potato market to the British potato industry. Mr Melville explained that the UK is currently Egypt's biggest European trade partner but that this position is threatened by France where the government is actively promoting trade with Egypt. He expressed a willingness to give support to UK seed potato companies in Egypt. Mrs Fahmi has been developing the export potential to Egypt for other agricultural products from the UK, and it would be valuable to ensure that these resources are used where necessary also for seed potatoes.

Farm visit – 1 April 2008



Representatives of one of the main importers of Scottish seed potatoes in Egypt took the British delegation to several potato fields in Menoufeya Governorate in the Nile Delta area north of Cairo. Several crops planted with seed imported from Scotland were visited. Very few signs of stress, diseases or faults were visible in the foliage or tubers of the crops seen.

Many potato fields in the Delta area are flooded several times during the growing season with surface water from the River Nile through an intricate network of irrigation canals, which explains the widespread problems with brown rot experienced in Egypt in the past.

The local potato storage building, a cooperative facility, was also visited although it was empty at the time.

Several representatives of other seed potato importing companies were seen later the same day.

Ministry of Agriculture, Office of the First Secretary – 2 April 2008

The main official meeting of the Outward Mission was held at the office of the First Secretary for Agriculture in Giza.

Officials attending:

On behalf of Egypt: **Dr Safwat El Haddad**, First Secretary, Head of Agricultural Services & Director of Potato Brown Rot Project; **Eng. Salah Moawed**, Head of Central Administration for Seed Testing & Certification; **Dr Samy Kheir**, Deputy Head of Central Administration of Plant Quarantine; **Prof. Dr Salah El-Dein Sherif**, Director of Plant Pathology Research Institute; **Dr**

Nabil Hussein Saad, Emeritus Chief Plant Pathologist, Plant Pathology Research Institute; **Dr M Abu El-Ela**, Chief Plant Pathologist, Plant Pathology Research Institute.

On behalf of Britain: **Dr Pieter van de Graaf**, Export Liaison Officer, The Scottish Government; **Mr Mark Prentice**, Seed & Export Manager, Potato Council; **Mrs Mona Fahmi**, Trade & Investment Officer, British Embassy; **Ms Sandy Iskander**, Trade & Investment Assistant, British Embassy.

Three high-ranked Egyptian officials involved in seed potato import and production were unable to attend and sent their apologies: **Dr Ali Soliman**, Head of Central Administration of Plant Quarantine; **Dr Saad Nassar**, Chairman of the Seed Committee; **Dr Fawzi Naem Mahrous**, Head of the National Seed Council.

Items discussed regarding potato production in Egypt and British seed potato exports

Exchange of information on potato production systems

Dr van de Graaf gave a presentation to the Egyptian officials explaining the Scottish seed potato classification and inspection system. Mr Prentice also gave a presentation that added some information on the high quality and health status of British seed. The Egyptian delegation showed a short film on potato production in Egypt and gave more background information by responding to specific questions.

Dr Safwat confirmed that the Egyptian government has a strategy to increase potato export. He mentioned that seed imports from Scotland would increase faster if there was more demand for Egyptian ware in the UK. Dr van de Graaf explained that this was up to market forces and not something that could be directly influenced by the Scottish Government.

Imports from Scotland

As most of the British seed exported to Egypt comes from Scotland, the discussion focused on these imports. Very few problems have been reported with Scottish seed potato imports in Egypt in recent years. However, there have been a few recent rejections for spraing. Dr Safwat indicated that the inspection of seed potato consignments in the country of origin by Egyptian officials greatly helps to prevent such problems upon arrival in Egypt.

He undertook to ensure that in future, notification of rejections will state the percentage of disease found which has not so far been the case. It was explained by Dr van de Graaf that this would help the Scottish Government and trade to prevent such problems from reoccurring.

The Egyptian delegation mentioned that common scab and silver scurf are more of a problem on seed consignments from some areas in Scotland compared with others. Mr Prentice and Dr van de Graaf explained that this could be influenced by seasonal variation rather than geography alone.

Egyptian phytosanitary standards for seed potato import

Dr Safwat explained that the tolerances in the Ministerial Decree are agreed with the trade in Egypt through the Seed Committee. Although Egypt is interested in international harmonisation of import standards, it can only apply the UNECE standard where this does not threaten the quality of Egyptian ware.

It was clear from some technical discussion that there are gaps in the understanding of some potato diseases in Egypt. In particular, details of the effect of environmental factors on the development of powdery scab and common scab were being confused.

Ware potatoes in Egypt are inspected to the tolerances laid down by the EU (which cover quarantine diseases only) but the tolerances applied for some diseases in the seed production within Egypt are much stricter.

Non-phytosanitary conditions

The question of non-phytosanitary conditions for seed potato import in the Ministerial Decree was raised by the British delegation. Mr Prentice explained that the British trade would prefer such conditions to be left to commercial partners to negotiate and agree. Dr Safwat said that the requirement for split grading was included in the Decree by the Egyptian Government to protect Egyptian farmers from malpractice as the larger size range is generally worth less in Egypt than the lower one.

The cut-off date for imports into Egypt has already been relaxed in the most recent Decree and is mainly in place to prevent problems with tuber moth due to late planting. Dr Safwat said that late arrivals would be accepted if the Egyptian authorities are informed beforehand regarding the reasons for the belated entry.

Varieties and breeder's rights

Upon request, Dr Safwat explained that Egypt is currently preparing to sign up to the International Convention for the Protection of New Varieties of Plants (UPOV) and is hoping this will be concluded by next season.

Dr Safwat mentioned that new varieties suitable for processing are needed in Egypt, but he said the price of protected varieties is often a problem. The expansion of Egyptian potato production into new land is set to continue and new varieties suitable for the desert conditions would also be welcomed.

Propositions for further co-operation

It became clear from the discussions that the main reason for the tight tolerances applied by Egypt to imported seed potatoes is the lack of knowledge on certain potato diseases in Egypt. There is uncertainty about what risk these diseases would form to the Egyptian ware potato production if import tolerances were relaxed.

Dr Safwat proposed to set up a mutual project with the Scottish Government and Potato Council to look into the importance of three diseases under Egyptian conditions: common scab, powdery scab and silver scurf. It was agreed that the possibility to include spraing caused by Potato Mop Top Virus (PMTV) and Tobacco Rattle Virus (TRV) would also be considered.

Dr Salah El-Dein Sherif, Director of the Plant Pathology Research Institute, and Eng. Salah Moawad, Head of Central Administration for Seed Testing & Certification, have been made responsible on the Egyptian side to draft an initial study plan for further discussion. The British delegation agreed to consult with the British trade and look into possible sources for funding for such a project which would be beneficial to both sides.

Dr Safwat indicated he would be very interested to visit Scotland during the coming growing season to increase his understanding of Scottish seed potato production and to further develop the potato contacts between Egypt and Scotland.

Potato Brown Rot Project – 3 April 2008

Present: **Dr Faiza Fawzi**, Deputy Director; **Eng. Nader Mohammed El Badry**, Microbiologist; and others.



The Potato Brown Rot Project in Egypt was set up with funding and expertise from the European Union. The Central Science Laboratory in York was one of the organisations involved.

The methods of sampling, extraction and testing used in Egypt are based on those prescribed in European protocols for use within the EU itself. However, testing in Egypt is much more extensive than in the EU and takes place at many different stages within the potato production system. Water and weed samples from fields are also regularly tested. Imported seed is tested for ring rot as well as brown rot.

The main techniques used for detection, apart from visual examination by tuber cutting, are plating on selective agar and immuno-fluorescent microscopy. Suspect samples are further tested by real-time PCR and bioassay. Molecular studies have shown that there is little genetic variation in strains of *R. solanacearum* in Egypt, which are all biovar 2 race 3.

A database is maintained of Pest Free Areas and recent positive findings have always been from outside these regions. Eradication of brown rot in infested areas is hampered by a lack of understanding of the mechanism of survival of the bacterium. Woody nightshade, *Solanum dulcamara*, which is an important alternative host for *R. solanacearum* in Europe, does not occur in Egypt and other wild host plants have yet to be identified.

New PFAs for potato production are regularly set up in the Egyptian desert away from the contaminated River Nile. These areas are generally irrigated with water from artesian wells.

Central Administration for Seed Testing & Certification – 3 April 2008

Present: **Eng. Salah Moawad**, Head; **Mr Bernard Quere**, Technical Expert of Seed Potato Production Support Project; **Eng. Samy Hamed El Dib**, Director of Technical Affairs Office; **Mr Yehia Abdel Samie**, Director of Central Seed Testing Laboratory; **Dr M Abu El-Ela**, Chief Plant Pathologist, Plant Pathology Research Institute; and others.

The British delegation was received at the Central Administration for Seed Testing & Certification (CASC) in Giza and given a presentation on the Seed Potato Production Support Project. This extensive six year project is funded through the French Food Aid Counterpart Fund, with

involvement of the French National Federation of Seed Potato Growers (FNPPPT) and the French Association for Seeds and Seedlings (GNIS), and driven by the Franco-Egyptian Agricultural Liaison Bureau (BLAFE). BLAFE is a bilateral body, run by the Egyptian Ministry of Agriculture and the French Embassy in Cairo.

The Seed Potato Production Support Project aims to assist Egypt to achieve a high quality potato production chain by establishing a seed potato inspection and certification system. To reach this aim, the project has helped to set up a quality assurance system, to enhance disease detection methods, and to set up an IT system for certification administration and official label printing. The project also covers extension activities, such as training for inspectors and potato open days for growers. As a result, the latter mainly feature French varieties.

The Egyptian seed potato classification system only covers one class, A. This Egyptian seed, which is the produce of imported Super-Elite or Elite seed, is used for planting to produce ware for export providing it meets the classification standard.

Before planting, soil samples are taken to test for the presence of root knot nematodes (*Meloidogyne*), a quarantine pest in Egypt, and for the brown rot bacterium. Testing for PCN does not take place. A minimum rotation of 3 years is applied and seed crops can only be planted in recognised PFAs for brown rot.

The main focus of the Egyptian seed potato classification scheme is on growing crop inspections. At least four inspections are carried out in the growing crop during which a wide range of factors is monitored including field isolation, irrigation, yield estimation, tuber moth presence, aphid pressure and virus diseases. During the growing season, tubers are dug up to test for brown rot. After harvest, further brown rot tests are carried out and samples are inspected for damage and diseases. Visual tuber inspection tolerances include viruses, dry rot, common scab, powdery scab, black scurf, silver scurf, and other fungal diseases. The powdery scab tolerance is 0% and is the only quality disease listed under quarantine diseases.

CASC records all crop details in a computer database (Microsoft Access), including the results of official inspections which are entered after each inspection throughout the growing season. Inspection report forms and labels are printed based on the information in the crop database. Labels are printed centrally in only one format, for class A, and only for lots of up to 25 t each.

A new department has recently been set up within CASC for the administration of new crop varieties for the National List. Although the actual DUS testing takes place elsewhere, CASC issues the final certificates of acceptance. CASC also has a wide range of testing facilities for small seeds, which meet ISTA standards.

Conclusions & Implications

The British Outward Seed Potato Mission was the first of its kind and was very well received by both the official and trade representatives visited in Egypt. It has indicated to the Egyptian government that Scotland is serious about improving relationships and cooperation with this important market. It also has greatly improved the understanding of the potato production system in Egypt, including the reasoning behind the tolerances set for imported seed.

Ware potato export is hugely important to Egypt and clearly relies on the availability of high quality seed from elsewhere. Many of Egypt's phytosanitary activities are aimed at preventing and detecting brown rot which is seen as the biggest threat to Egypt's potato trade with good reason. Scotland's unique position within Europe as a seed exporting country where potato brown rot has never been found is therefore a great selling point in Egypt. In view of Dr Safwat's central role in potato production and brown rot control in Egypt, an inward mission to Scotland attended by him in particular would be a good opportunity to reiterate these points.

As Egypt's first priority for a long time has been the control of brown rot, other phytosanitary aspects of potato production have hitherto not been extensively addressed. Official, systematic disease and quality control measures have only recently been introduced in Egypt as part of the Seed Potato Production Support Project. This joint project with France has given the French seed potato trade and government an almost direct influence on Egypt's internal potato production procedures. This is reflected in the diseases tolerances applied within Egypt (e.g. 0% for powdery scab) and the official extension activities by the Egyptian Government (e.g. the varieties used at open days for growers).

The Outward Mission has made clear that there are great opportunities for Scotland to support and guide the Egyptian government with regard to potato disease tolerances also. The offer from Dr Safwat to set up a joint study into the risk of certain diseases under Egyptian conditions indicates a willingness both to relax import tolerances in the longer term and to further improve cooperation with Scotland. It is unlikely that Egypt will considerably relax its import tolerances for seed potatoes without access to more scientific and technical information on the diseases involved and the risk they pose under Egyptian conditions. Some of this information is already available and merely needs to be extended to Egypt in a useful manner. The collection of other data may need more extensive research and field studies in Egypt. Scotland certainly has the expertise to support the Egyptian government in this area but funding of such activities could be a barrier to taking up Dr Safwat's offer for further cooperation.

Competing seed exporting countries, such as the Netherlands and France, are far ahead with regard to technical support to and cooperation with importing countries. This is an area which the British potato trade should consider with respect to funding future activities. The trade should also be consulted regarding a second mission of Egyptian officials to Scotland during the summer which would give an opportunity to show them the high health status of Scottish crops in the field and enable further discussion of future cooperation.

If you would like to discuss this mission from Egypt in more detail please contact:

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