



# Report on the Inward Mission from Israel on Scottish Seed Potatoes 16 – 18 August 2010

## Executive Summary

An inward seed potato mission from Israel was organised by the Potato Council and Science and Advice for Scottish Agriculture (SASA). The delegate from the State Of Israel Ministry of Agriculture and Rural Development, Mr Meir Mizrahi, Head of Plant Quarantine and Plant Protection and Inspection Services (PPIS) visited Scotland between 16-18<sup>th</sup> August 2010.

The delegate visited SASA headquarters to attend discussions focusing on seed potato production, and tour facilities related to the Seed Potato Classification Scheme (SPCS). Field visits also showed him practical aspects of how the industry meets the standards required by the SPCS. Several areas were discussed with Mr Mizrahi, actions were agreed and dialogue is ongoing to ensure fruitful cooperation.

## Purpose & Objectives

The purpose of the inward mission was to further improve contacts with the key Israel plant health official, show how classification, testing, grading and inspection of seed potatoes in Scotland is conducted, and to discuss the progress and changes made since the last visit in Scotland. This specifically included the existing 10 month rule for PCN testing.

The objective was to improve the current level of trade.

## Background

Scotland and Israel have a good trading relationship and we currently export around 10,000t of seed potatoes to Israel. There are a number of issues relating to Israeli import requirements which if they were revised could improve our exports to this important market. The mission was seen as a vehicle for dialogue and as a knowledge exchange exercise with this important trading partner.



## Summary of the visit

### Science and Advice for Scottish Agriculture – 16 & 18 August 2010

Mr Meir Mizrahi, Head of Plant Quarantine and Plant Protection and Inspection Services (PPIS), State Of Israel Ministry of Agriculture and Rural Development was received at SASA Headquarters by **Mr Robert Burns**, Export Liaison Officer, for the first day of the visit.

The programme started with an official welcome to Scotland by **Prof Gordon Machray**, Head of SASA, in presence of **Dr Kevin O'Donnell**, Head of Rural Scientific Services, SASA, **Mr John Speirs**, Senior Policy Analyst, Plants, Horticulture and Potatoes, Scottish Government - Rural Directorate, **Mr Alan Napier**, Potato Inspection Co-ordinator, Central Area, Scottish Government - Rural Payments & Inspections Directorate, **Dr Jon Pickup**, Head of Virology and Zoology Branch, SASA, **Ms Anna Krakowska**, Potato Co-ordination Officer, SASA and **Mr Drummond Todd**, Potato Council.

A discussion of a range of topics (see below) took place throughout the visit, in particular during a final meeting at SASA on the third day.

### Issues discussed regarding Scottish seed potato consignments to Israel

#### General

- Good cooperation between PPIS Israel and SASA
- Role of PPIS – legal; issues, plant protection, pesticides, quarantine issues, import and export of plants
- Role of SASA
- Seed potato – imports – big issue for Israel
- It is claimed that a lot of diseases do not exist in Israel – work to prevent introduction of these pests

#### Plant health legislative changes introduced in recent years by **John Speirs**

- Scotland's high health status is recognised by EU
- UNECE standard for seed potatoes was incorporated in our legislation with some standards set even higher – Minimum Export Tolerance
- Scotland produces only highest classes of seed Pre-basic and Basic
- Limited import of seed into Scotland (1% of total planted)
- UK potato quarantine sits in SASA (recognition of Scotland' status)
- Plant Health Scotland Order 2005, covers 4 key pests: brown rot, ring rot, wart disease, PCN
- PCN directive was review by EU, from July 2010 new PCN directive in place
- More robust and more intensive measures of control
- Statutory notifications of potato planted in Scotland
- Voluntary ban on imported seed into Scotland
- Risk assessment of imported seed stock – these are sampled before planting
- Separation requirements for seed and ware potatoes due to risk of cross contamination
- 2006 Plant Health Potato Order: notification of all seed and ware potatoes.



### ***Dickeya solani* – control measures**

- Scotland has introduced a zero tolerance for *Dickeya* spp. into SPCS.
- Control measures for our inspectors introduced in 2010.
- Much more control over ware potatoes.
- Inspection of at least 10% of ware crops (based on risk basis).
- Statutory notification of imported crops (including England, Wales and Northern Ireland) → samples will be tested for brown rot and ring rot and *Dickeya* (tuber test).
- The method of testing was explained by John Kerr.
- Visit to Bacteriology lab to see how samples for *Dickeya* are tested.

*Dickeya* was mentioned by the Israeli delegation back in 2005.

### ***Dickeya solani* - discussion**

- Findings were in the small number of ware crops grown from non Scottish origin seed.
- Crops of Dutch origin grown for 1 year in England appeared to the greatest risk.
- As part of EU Scotland cannot set it up as quarantine organism.
- Zero tolerance approach for *Dickeya* has been pursued. This is legal in EU because it applies to all potatoes grown in Scotland.
- Initial requirement was to continually test Scottish crops to demonstrate freedom - *Dickeya solani* was never found.
- The only findings were from non Scottish seed.
- Strict legislation has managed to keep *Dickeya* out of Scotland
- Israel as export customer should have confidence in quality of Scottish seed potatoes and their health standard
  
- All fields in Israel planted with infected imported seed are under a monitoring programme. *Dickeya solani* did not survive without potato crop. However, Meir Mizrahi is worried the bacteria might change it's behavior. Israel is unsure on the best testing methodology for tubers. They are cooperating with the Dutch who are researching this. Meir Mizrahi was very interested in SASA procedures for *Dickeya* tuber testing. Kevin O'Donnell was happy to share our testing method with Israel.
- John Kerr highlighted that a tuber sample will just give an indication if *Dickeya* is present, it won't guarantee absence of disease. This is why SASA do checks during growing crop inspections.
- *Dickeya* is a quarantine pest in Israel. Meir Mizrahi is interested in any validated method of diagnostics for tuber testing, to identify infected potatoes.
- In Scotland where there is no tolerance for *Dickeya* spp, tests are carried out to determine the genus and species. This is quite expensive and time consuming, but because Scotland is not importing a lot the cost is manageable.
- Scottish Government and Potato Council is investing £500k in *Dickeya* research over the next three years.
- *Dickeya* has been found in Israel on 1,755 tonnes of imported seed potatoes in 2009.
- *Dickeya* has also been found in weeds in Israel.

The awareness leaflet that has been produced by SASA for the Scottish potato industry was also highlighted to Meir Mizrahi.



Meir Mizrahi explained that yield loss from *Dickeya* spp. in Israel can be between 3-40%.

Alan Napier provided an update to Meir Mizrahi on the ware crop inspections and the powers that exist to control those crops that are a threat to seed potato crops. This included:

- A minimum of 10% of ware crops inspected
- The power to burn down the crop if excessive virus is posing risk to the seed crops
- Ware potatoes can only be planted for one year from Farm Saved Seed (FSS).
- Imported seed for ware crops are tested for *Dickeya*.
- It was explained that all inspections are done by officials working for Scottish Government.
- Scotland has a very strict regime for growing ware. Industry is also very supportive of these extra measures to protect seed health.

### **Scottish seed disease tolerances presented and discussed**

Following concern by Meir Mizrahi about powdery scab, Kevin O'Donnell explained that research continues in to powdery scab, but the threats from *Dickeya* are greater.

It was reiterated that Scotland is free from brown rot, ring rot, *Dickeya* spp.

### **Scottish Potato Classification Scheme IT support – SPUDS**

This new system was explained by John Kerr. The system was demonstrated, and how it can show very detailed information on crop history back to minituber production. It also allows field history to be easily charted, including PCN sampling. This should provide increased confidence to Israel on seed potatoes being grown in PCN free soil.

### **Summary of the season by Meir Mizrahi**

- Israel hadn't found any *Dickeya* infection in the fields planted with Scottish seed potatoes.
- They did find up to 3% infection with *Pectobacterium* black leg in crops of Scottish Desiree & Nicola.
- Some Scottish seed arrived with a high level of soft rot in the bags. The level of rot was between 5 to 40% of the seed in different bags.
  - It was pointed out there was often a problem with shipment, where the consignment was sitting in docks in Holland waiting for a boat. Specific transport of affected stocks would need to be explored.
  - It was agreed that exporters should be reminded about the right conditions for transport.
- Meir Mizrahi agreed to send regular reports to Robert Burns. This would enable problems to be followed up and lessons learned.
- Meir Mizrahi repeated his concerns that the highest levels of powdery scab is found in seed potatoes from Scotland. It was explained that Potato Council does inform growers and exporters how to control the risk of powdery scab (control measures).



### **Coordination of tuber inspections**

Meir Mizrahi asked if it is possible to coordinate Israeli and Scottish official inspection of tubers. He would prefer Scottish inspectors to carry out inspections before Israeli checks. Following an explanation on the practicalities of stock preparation by growers, the movements of Scottish inspectors, and the need for multiple market grading it would be very difficult to achieve this. However, it was agreed that this information would be fed back in to exporters.

### **Transport split between containers**

Meir Mizrahi complained that containers containing the same Scottish lot were arriving on different vessels from Holland. He would prefer to see lots leaving Scotland at the same time, to arrive in Israel on the same vessel. The issuing of Phytosanitary Certificates by Scottish Government is done as material is leaving Scotland. Once shipments leave the country, this is then out with Scottish Government control. It was also pointed out that shipment through Holland was requested by the Israeli importers. It was felt that this was a commercial issue between exporter and importer.

### **Potato cyst nematode – implementation of new directive**

Meir Mizrahi was given a full presentation on the increased PCN regulation within the EU, including an increase in sample size and possible detection. Meir Mizrahi was also shown the new equipment installed by SASA to make PCN testing more automated. It was suggested to Meir that the increased regulation provided extra security to Israel. It was requested that the “10 month rule” now be reconsidered. Meir Mizrahi agreed to consider this back in Israel.

### **PSTVd - Potato Spindle Tuber Viroid**

Following concern expressed by Meir Mizrahi around PSTVd, it was pointed out that this is a quarantine organism within the EU and Scotland is free from it.

### **PVY**

There were no reports from importers that any potatoes from Scotland caused any symptoms. Necrotic symptoms on tubers are also less common.

### **Seed Potato Industry Visits – 17 August 2010**

On the second day of the programme, Mr Meir Mizrahi visited mini-tuber production facilities, seed potato production farms and met with representatives of the trade. He was accompanied throughout the tour by Mr Robert Burns (Export Liaison Officer), Mr Drummond Todd (Potato Council) and Mr Alan Napier (SG - RPID).

Mr Mizrahi was shown how different parts of the Scottish seed industry meet the requirements of the SPCS and the Israeli phytosanitary requirements. He was informed that micro-plant and mini tuber production is only conducted by officially approved companies.

### **Conclusions and implications**

The inward mission by the State of Israel was a great success continuing productive dialogue with Meir Mizrahi. A number of important export-related issues were discussed



and actions agreed. There were great opportunities for knowledge exchange allowing a greater understanding of both the Scottish production system and also the conditions and expectations of growers in Israel. It is hoped that onward discussion may help facilitate increased exports to this important destination.

**As a result of the Inward Mission, it is proposed that:**

SASA / Scottish Government should:

- Provide Meir Mizrahi with information regarding imazalil (the only fungicide allowed for tubers before planting).
- Provide details regarding PSTVd.
- Send official request to Meir Mizrahi regarding dropping of the '10 month rule' for PCN testing.
- Find out how ring rot and brown rot findings from other countries could be sourced (possibly through the EPPO).
- Provide Meir Mizrahi with a list of crops intended for Israel market.
- Provide new PCN regime testing protocol (once validated) to Meir Mizrahi.
- Discuss with Alan Napier and exporters about possible coordination of Scottish Government and Israeli inspections of lots exported to Israel (timing and procedure).
- Provide *Dickeya solani* testing protocol.
- Send contact details of German bacteriologist (Petra Muller).

PCL should:

- Talk to exporters/growers about logistics planning and organisation of tuber inspections for Israeli market (official SG inspection before representative from Israel).
- Remind exporters about good condition during transport and inform Area Offices (inspectors) if transport will be split during shipment.
- Raise awareness of powdery scab issue with exporters and reissue leaflet "Management of powdery scab..."

Israel Department of Agriculture will:

- Send variety test results to Robert Burns.
- Provide Robert Burns with rejection report from Israeli inspections.
- Provide Robert Burns and Gerry Saddler with Latin name of the weed found to be a host to *Dickeya solani* in Israel.
- Consider the request to remove the "10 month rule" for PCN

If you would like to discuss this mission further please contact:

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