Salad Potato Technology Project

Crop Walk September 2015 (Workshop 4)

Workshop 4 will look at: importance of understanding customer specifications, importance of skin set, understanding risk of skin disease and pest damage, and storage issues such as cooling, ventilation, differences between sorting ware and salad potatoes, sprout management, etc.

9/14/2015

Teagasc, Bord Bia, IFA and Salad Potato Technology Project

Context

The imports of salad potatoes are estimated at 20,000 tonnes per year. It is estimated up to 15 Irish growers have been supplying approx. 10-15% to this market each year. There is huge scope to increase the volume of home produced salad potatoes to the domestic market. Increasing the area grown to salad potatoes can thereby displace imported salad potatoes and will also help potato growers diversify existing ware production into a premium market. The production of salad potatoes requires considerable skill and a change of practice if changing from traditional ware potato production. Grower diversification into salad production cannot be taken likely as the supply chain (from seed supply, agronomy, to final sale) need to be secure.

Coping with an expansion of salad potato will be challenging. Potato farmers will require the knowledge and support to enable them to make the necessary changes for a profitable and sustainable future. It is within this context this initiative between Teagasc, Bord Bia, IFA and industry has been agreed.

Purpose

The overall purpose of the program is to increase the level of information to existing growers and ultimately increase the quantity of salad potatoes grown in Ireland. This will involve equipping the industry with the necessary skills and knowledge to sustainably develop their potato enterprises

Objective

The program has five objectives

- Improve existing growers knowledge in all areas (agronomy/storage) of growing salad potatoes
- Increase the total quantity of salad potatoes grown in Ireland
- Grow the market for indigenously grown salad potatoes to keep pace with increased production
- Increase the number of growers supply salad potatoes
- Upskill the industry on storage of salad potatoes
- Leave a legacy of information for growers to use after the program is finished

Methodology

1. Run a Technology transfer project over the next 3 years
2. Regularly meet existing growers through each season at critical times
3. Develop markets and solutions to prolong window where salad potatoes are delivered
4. Provide up to date agronomy notes for growers at each meeting , building to a substantial volume of information over the three years which can be used in the future

Agenda for September Workshop

September	• **Session 1** Quality of demo varieties i. Samples of all salad varieties grown in the demo (boxes and graded) ii. Skin finish, dry matter, potential storage issues, how long could it store for? • **Session 2** Storage i. Sutton bridge storage questionnaire for all attendees to fill (at the start) ii. Back to basics re storage – o Long term storage of potato (the basics) o Potato condition going in, drying, cooling, hold temp, etc. o Differences for salad potatoes o Small spuds re ventilation (moisture loss) iii. Store, boxes, filling (suitability for salads v ware) iv. store management and box layout, v. Sprout management – storing salad potatoes until February-March? • **Session 3** Economics i. Economics of salad potato production (assessment of costs and potential profitability)
Topics discussed at previous Workshops	
July	• *importance of understanding customer specifications,* • *deciding when to harvest,* • *desiccation techniques,* • *yield assessment digs,* • *importance of skin set,* • *understanding risk of skin disease and pest damage, harvester settings,* • *irrigation to protect skin quality,* • *management for long term storage*
May	• *Review of varieties* • *Emergence,* • *Spacing* • *Impact of cultivation* • *Canopy growth* • *Root and stem development* • *Weed control* • *Irrigation planning and techniques* • *Blight control* • *Foliar nutrition (phosphate for seed crops)*
April	• *Varieties for the market* • *Variety specifications* • *costs of production* • *Production issues* • *Field history* • *Soil type and soil structure* • *Soil analysis* • *Seed quality* • *Seed rate and requirement for uniformity* • *target stem numbers* • *Fertiliser requirements* • *Seed tuber fungicide treatment if required* • *Machinery for planting* • *Other areas of interest*

Demonstration site (John Stafford, Wexford)

Field name	**J. Murphy's**	
History before planting	• Round-up which cleaned the stubble before we ploughed it. • Rotavate on the flat while bed forming, followed by destoning (Grimme CS1500), followed by planting. • Planting equipment • Grimme six row cup planter and also a structural two row belt planter. • Fertiliser placement unit which applies fertiliser on top of the bed ahead of the planter unit. • Potash broadcast the on the ploughed ground	
Soil type	Fine Clay with percentage of sand, on a river bank	
Soil analysis		
pH	6.0	
P	3.8 (Low index 2)	
K	237 (high index 4)	
Mg	110 (index	
Manure applied?	No	
Fertiliser used	N= 68kg/ha (54units/ac) (54 units/ac in bed) P= 115 kg/ha (92units/ac) (60 units/ac in the bed) K= 90 kg/ha (72units/ha)	
Field history		
Last year potatoes grown?	2011	
Previous crop?	Spring Barley	
Any groundkeepers?	No	
PCN? FLN?	Not tested	
Stone content	Very low stone content	
Bed width	72 inches	
Irrigation available?	Yes	
De-stoner webs spacing	30mm Space	
Harvester webs spacing	30mm Space	
Planting date	April 22nd	
Varieties and seed classification	Maris Peer (35/55mm) Jester (25/35mm) Charlotte (35/45mm) Jazzy (35/45mm) Imagine	EC2 Class SE EC2 Class E EC2 Class SE EC3 Class A EC2
Market size requirement	25-45mm	
Seed tuber count (tubers/50kg)	Maris Peer (35/55mm) Jester (25/35mm) Charlotte (35/45mm) Jazzy (35/45mm)	940 per 50Kg 2650 per 50Kg 810 per 50Kg 910 per 50Kg
Planned seed tuber spacing (inches) for 300,000stems/ac	Maris Peer (1.28ac) Jester (0.67 ac) Charlotte (0.625ac) Jazzy (0.196ac) Imagine (2 rows)	4.4 3 5.7 6.5 4.4

Seed tuber fungicide treatment	All treated with Imazalil/Thiabendazole	All varieties also receive Monceran 1.5 kg/ton
Weed control	May 21	Retro 2L/ ha Defy 3 L/ha Shotput 0.75 kg/ha Activator 0.2 L/ha
Irrigation	8th June 12th June 16th June (enough rain fell thereafter)	All applications 25 mm
Blight and insecticide applications **(started at roseate stage 2")**	3rd June	Volley 0.4 L/ha
	10th June	Infinito 1.6 L/ha MagPhos 5 L/ha
	17th June	Infinito 1.6 L/ha MagPhos 5 L/ha Mancozin 1 L/ha
	23rd June	Infinito 1.6 L/ha Sparviero 75 ml/ha (insecticide) Mancozin 1 L/ha MagPhos 5 L/ha
	30th June	Revus 0.6 L/ha Dimethox 0.7 L/ha Mancozin 1 L/ha
	8th July	Revus 0.6 L/ha Option 0.1875 kg/ha Plenum 0.3 Kg/ha (insecticide)
	14th July	Ranman 0.6L/ha Sparviero 75ml/ha
	22nd July	Consento 2L/ha Plenum 0.3Kg/ha
	25th July	Volley 0.2L/ha
	29th July	Volley 0.4L/ha
	6th August	Ranman 0.5L/ha

Pre-harvest dessication	21st July 25th July 1st August	Reglon 2L/ha Reglon 1.5L/ha Reglon 2L/ha
Harvest **(Saturday 12 September)**	Maris Peer Jester Charlotte Jazzy These are approx. figures from the acre meter in the tractor and also approx. weights per box.	10.15 ton/ac 9.4 ton/ac 12.84 ton/ac 16.66 ton/ac