Project title:		The role of environmental factors in the incidence of Pansy mottle		
	syndrome (PaMS) 2015			
ADAS: XBM	5577 HDC: PO 016a			
Date	Comment	Initials		
	No comments provided			

Production information	
Seed details	
Breeder/ supplier:	
Cultivar, genetics (F ₁): Pansy Moonlight Mix. Batch number 119316	
Seed treatment: Unknown	
Storage Location (cold room, fridge): Fridge	
Storage Temperature: 5°C	
Germination/propagation information	
Date of sowing/batch number: 12 June 2015	
Sowing method: Overhead line	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): 'Syngenta type' trays on floor (Mypex cover)	
Position within location (e.g. any doors/vents nearby):	
Date covered (note if not milky plastic): N/A	
Date cover removed: N/A	
Module (cell number): 480	

Module (cell volume): Approx. 4 ml	
Growing media (product, specification, additives e.g. wetters). Obtain sample.	
Movement information:	
Transport method:	
Route (outdoors, indoors etc.):	
Duration:	
Covered?	
Growing on information:	
Date of transplanting: W/C 6 July 2015	
Growth stage at transplanting (no. of leaves)	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): In plastic tray on mypex covered floor	
Position of monitors within location (within 5 m of a doorway/vent/fans):	
Module (cell number): 6 packs	
Module (cell volume):	

Irrigation ap	Irrigation application: Not completed for this batch						
Date	Stage of production	Volume	Method of application	Source(mains/reservoir/borehole)			
Unable to qu	Unable to quantify due to variability (to hand watering / spot watering of individual units as necess ary)						

Fertiliser app	Fertiliser application: Not completed for this batch						
Date	Stage of production	Product	NPK content	Method of application	Concentration (g/l)		

Crop protection and PGR application:

Date	Input type	Dose rate/water volume	Product name	Active ingredient	Application Method
Week 32			Fubol Gold		
Week 33			Chess		
Week 34			Signum		
Week 35			Chess		
Week 36			Spruzit and Amistar		
Week 37			Chess		
Week 38			Fenomenal		

Root hair a	air assessment at transplant Date: Not completed for this batch					
Pansy batch / sowing date:		Growth stage (no of leaves):				
Plant no.	Root hair score (0-3 scale)	Comments	Plant no.	Root hair score (0-3 scale)	Comments	
1			11			
2			12			
3			13			
4			14			
5			15			
6			16			
7			17			
8			18			
9			19			
10			20			

Pansy Mottle Syndrome incidence					
Date	Time	Sowing Batch	Tray number in batch	Number of plants affected	Growth Stage

Project title:		The role of environmental factors in the incidence of Pansy mottle		
	syndrome (PaMS) 2015			
ADAS: XBM	5577 HDC: PO 016a			
Date	Comment	Initials		
	No comments provided			

Production information	
Seed details	
Breeder/ supplier: Winter Lights. Batch number 118632	
Cultivar, genetics (F ₁):	
Seed treatment: Unknown	
Storage Location (cold room, fridge): Fridge	
Storage Temperature: 5°C	
Germination/propagation information	
Date of sowing/batch number: 19 June 2015	
Sowing method: Overhead line	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): 'Syngenta type' trays on floor (Mypex	
cover)	
Position within location (e.g. any doors/vents nearby):	
Date covered (note if not milky plastic): N/A	
Date cover removed: N/A	
Module (cell number): 480	

Module (cell volume): Approx. 4 ml	
Growing media (product, specification, additives e.g. wetters). Obtain sample.	
Movement information:	
Transport method:	
Route (outdoors, indoors etc.):	
Duration:	
Covered?	
Growing on information:	
Date of transplanting: 24 July 2015	
Growth stage at transplanting (no. of leaves)	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor):	
Position of monitors within location (within 5 m of a doorway/vent/fans):	
Module (cell number): 6 packs	
Module (cell volume):	

Irrigation	Irrigation application: Not completed for this batch					
Date	Stage of production	Volume	Method of application	Source (mains/reservoir/borehole)		

Fertiliser app	Fertiliser application: Not completed for this batch						
Date	Stage of production	Product	NPK content	Method of application	Concentration (g/l)		

Crop protection and PGR application:

Date	Input type	Dose rate/water volume	Product name	Active ingredient	Application Method
04.08.15			Pirouette		
07.08.15			Pirouette		
Week 32			Fubol Gold		
Week 33			Chess		
Week 34			Signum		
Week 35			Chess		
Week 36			Amistar and Spruzit		
Week 37			Chess		
Week 38			Fenomenal		

Root hair a	assessment at transplant	Date: Not complet	Date: Not completed for this batch				
Pansy batch / sowing date:		Growth stage (no of leaves):					
Plant no.	Root hair score (0-3 scale)	Comments	Plant no.	Root hair score (0-3 scale)	Comments		
1			11				
2			12				
3			13				
4			14				
5			15				
6			16				
7			17				
8			18				
9			19				
10			20				

Pansy Mo					
Date	Time	Sowing Batch	Tray number in batch	Number of plants affected	Growth Stage

Project title:	The role of environmental factors in the incidence of Pan syndrome (PaMS) 2015	The role of environmental factors in the incidence of Pansy mottle syndrome (PaMS) 2015			
ADAS: XBM					
Date	Comment	Initials			
	No comments provided				

Production information	
Seed details	
Breeder/ supplier:	
Cultivar, genetics (F ₁): Winter Lights. Batch number 118633	
Seed treatment: Unknown	
Storage Location (cold room, fridge): Fridge	
Storage Temperature: 5°C	
Germination/propagation information	
Date of sowing/batch number: 26 June 2015	
Sowing method: Overhead line	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): 'Syngenta type' trays on floor (Mypex cover)	
Position within location (e.g. any doors/vents nearby):	
Date covered (note if not milky plastic): N/A	
Date cover removed: N/A	
Module (cell number): 480	

Module (cell volume): Approx. 4 ml	
Growing media (product, specification, additives e.g. wetters). Obtain sample.	
Movement information:	
Transport method:	
Route (outdoors, indoors etc.):	
Duration:	
Covered?	
Growing on information:	
Date of transplanting: 29 July 2015	
Growth stage at transplanting (no. of leaves)	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): In plastic tray on mypex covered floor	
Position of monitors within location (within 5 m of a doorway/vent/fans):	
Module (cell number): 6 packs	
Module (cell volume):	

Irrigation	Irrigation application: Not completed for this batch					
Date	Stage of production	Volume	Method of application	Source (mains/reservoir/borehole)		

Fertiliser app	Fertiliser application: Not completed for this batch						
Date	Stage of production	Product	NPK content	Method of application	Concentration (g/l)		

Crop protection and PGR application:

Date	Input type	Dose rate/water volume	Product name	Active ingredient	Application Method
06.08.15			Cycocel		
10.08.15			Cycocel		
Week 32			Fubol Gold		
Week 33			Pirouette and Chess		
Week 34			Pirouette and Signum		
Week 35			Chess		
Week 36			Amistar		
Week 37			Spruzit		
Week 38			Fenomenal		

Root hair a	assessment at transplant	Date: Not completed for this batch				
Pansy bate	ch / sowing date:	Growth stage (no of leaves):				
Plant no.	Root hair score (0-3 scale)	Comments	Plant no.	Root hair score (0-3 scale)	Comments	
1			11			
2			12			
3			13			
4			14			
5			15			
6			16			
7			17			
8			18			
9			19			
10			20			

Pansy Mo					
Date	Time	Sowing Batch	Tray number in batch	Number of plants affected	Growth Stage

Project title:		The role of environmental factors in the incidence of Pansy mottle				
	syndrome (PaMS) 2015					
ADAS: XBM	HDC: PO 016a					
Date	Comment	Initials				
	No comments provided					

Production information Production	
Seed details	
Breeder/ supplier:	
Cultivar, genetics (F ₁): Moonlight mix. Batch number 119773	
Seed treatment: Unknown	
Storage Location (cold room, fridge): Fridge	
Storage Temperature: 5°C	
Germination/propagation information	
Date of sowing/batch number: 28 July 2015	
Sowing method: Overhead line	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): 'Syngenta type' trays on floor (Mypex	
cover)	
Position within location (e.g. any doors/vents nearby):	
Date covered (note if not milky plastic): N/A	
Date cover removed: N/A	
Module (cell number): 480	

Module (cell volume): Approx. 4 ml	
Growing media (product, specification, additives e.g. wetters). Obtain sample.	
Movement information:	
Transport method:	
Route (outdoors, indoors etc.):	
Duration:	
Covered?	
Growing on information:	
Date of transplanting: 27 August 2015	
Growth stage at transplanting (no. of leaves)	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): In plastic tray on mypex covered floor	
Position of monitors within location (within 5 m of a doorway/vent/fans):	
Module (cell number): 6 packs	
Module (cell volume):	

Irrigation	Irrigation application: Not completed for this batch						
Date	Date Stage of production		Method of application	Source (mains/reservoir/borehole)			

Fertiliser application: Not completed for this batch						
Date	Stage of production	Product	NPK content	Method of application	Concentration (g/l)	

Crop protection and PGR application:						
Date	Input type	Dose rate/water volume	Product name	Active ingredient	Application Method	
Week 36			Amistar and Spruzit			
Week 37			Chess			
Week 38			Fenomenal			

Root hair assessment at transplant		Date: Not completed for this batch				
Pansy batch / sowing date:		Growth stage (no of leaves):				
Plant no.	Root hair score (0-3 scale)	Comments	Plant no.	Root hair score (0-3 scale)	Comments	
1			11			
2			12			
3			13			
4			14			
5			15			
6			16			
7			17			
8			18			
9			19			
10			20			

Pansy Mo					
Date	Time	Sowing Batch	Tray number in batch	Number of plants affected	Growth Stage

Site B Batch 5

Project title:		The role of environmental factors in the incidence of Pansy mottle		
	syndrome (PaMS) 2015			
ADAS: XBM	5577 HDC: PO 016a			
Date	Comment	Initials		
	No comments provided			

Production information	
Seed details	
Breeder/ supplier:	
Cultivar, genetics (F ₁): Fun Fair Mix. Batch number 122435	
Seed treatment: Unknown	
Storage Location (cold room, fridge): Fridge	
Storage Temperature: 5°C	
Germination/propagation information	
Date of sowing/batch number: 3 September 2015	
Sowing method: Overhead line	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): 'Syngenta type' trays on floor (Mypex	
cover)	
Position within location (e.g. any doors/vents nearby):	
Date covered (note if not milky plastic): N/A	
Date cover removed: N/A	
Module (cell number): 480	

Module (cell volume): Approx. 4 ml				
Growing media (product, specification, additives e.g. wetters). Obtain sample.				
Movement information:				
Transport method:				
Route (outdoors, indoors etc.):				
Duration:				
Covered?				
Growing on information:				
Date of transplanting: 6 October 2015				
Growth stage at transplanting (no. of leaves)				
Location within Nursery:				
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): In plastic tray on mypex covered floor				
Position of monitors within location (within 5 m of a doorway/vent/fans):				
Module (cell number): 6 packs				
Module (cell volume):				

Growing media (product, specification, additives e.g. wetters). Obtain sample.

Irrigation	Irrigation application: Not completed for this batch					
Date	Stage of production	Volume	Method of application	Source (mains/reservoir/borehole)		

Fertiliser app	Fertiliser application: Not completed for this batch						
Date	Stage of production	Product	NPK content	Method of application	Concentration (g/l)		

Crop protection and PGR application:						
Date	Input type	Dose rate/water volume	Product name	Active ingredient	Application Method	
11.10.15			Fubol Gold			
24.10.15			Signum			
08.11.15			Amistar			

Root hair assessment at transplant		t transplant Date: Not completed for this batch				
Pansy batch / sowing date:		Growth stage (no of leaves):				
Plant no.	Root hair score (0-3 scale)	Comments	Plant no.	Root hair score (0-3 scale)	Comments	
1			11			
2			12			
3			13			
4			14			
5			15			
6			16			
7			17			
8			18			
9			19			
10			20			

Pansy Mo					
Date	Time	Sowing Batch	Tray number in batch	Number of plants affected	Growth Stage

Site B Batch 6

Project title:	The role of environmental factors in the incidence of Pan syndrome (PaMS) 2015	The role of environmental factors in the incidence of Pansy mottle syndrome (PaMS) 2015		
ADAS: XBM				
Date	Comment	Initials		
	No comments provided			

Seed details	
Breeder/ supplier:	
Cultivar, genetics (F ₁): Jack Frost Mix. Batch number 122440	
Seed treatment: Unknown	
Storage Location (cold room, fridge): Fridge	
Storage Temperature: 5°C	
Germination/propagation information	
Date of sowing/batch number: 10 September 2015	
Sowing method: Overhead line	
Location within Nursery:	
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): 'Syngenta type' trays on floor (Mypex	
cover)	
Position within location (e.g. any doors/vents nearby):	
Date covered (note if not milky plastic): N/A	
Date cover removed: N/A	
Module (cell number): 480	

Module (cell volume): Approx. 4 ml				
Growing media (product, specification, additives e.g. wetters). Obtain sample.				
Movement information:				
Transport method:				
Route (outdoors, indoors etc.):				
Duration:				
Covered?				
Growing on information:				
Date of transplanting: 13 October 2015				
Growth stage at transplanting (no. of leaves)				
Location within Nursery:				
Floor, bench, stillage? (Include construction details (open mesh, polystyrene, concrete floor): In plastic tray on mypex covered floor				
Position of monitors within location (within 5 m of a doorway/vent/fans):				
Module (cell number): 6 packs				
Module (cell volume):				

Growing media (product, specification, additives e.g. wetters). Obtain sample.

Irrigation	Irrigation application: Not completed for this batch					
Date	Stage of production	Volume	Method of application	Source (mains/reservoir/borehole)		

Fertiliser application: Not completed for this batch					
Date	Stage of production	Product	NPK content	Method of application	Concentration (g/l)

Crop protection and PGR application:						
Date	Input type	Dose rate/water volume	Product name	Active ingredient	Application Method	
11.10.15			Fubol Gold			
24.10.15			Signum			
08.11.15			Amistar			

Root hair assessment at transplant		Date: Not completed for this batch					
Pansy batch / sowing date:		Growth stage (no of leaves):					
Plant no.	Root hair score (0-3 scale)	Comments	Plant no.	Root hair score (0-3 scale)	Comments		
1			11				
2			12				
3			13				
4			14				
5			15				
6			16				
7			17				
8			18				
9			19				
10			20				

Pansy Mottle Syndrome incidence					
Date	Time	Sowing Batch	Tray number in batch	Number of plants affected	Growth Stage
					,