Amaryllis Twin-Scaling and Chipping

Friday, January 20, 2023

		Sand (Treatment 1)				Redi-Earth (Treatment 2)				Vermiculite (Treatment 3)				Perlite (Treatment 4)			
		1/8 Chip	1/16 Chip	1/8 Scale	1/16 Scale	1/8 Chip	1/16 Chip	1/8 Scale	1/16 Scale	1/8 Chip	1/16 Chip	1/8 Scale	1/16 Scale	1/8 Chip	1/16 Chip	1/8 Scale	1/16 Scale
Name																	
Alicia & Tori	1	x	x	x	x												
Marlene & Erica	2					x	x	x	x								
Kevin	3									x	x	x	x				
Adam	4													x	x	x	x
Kimberly	1	x	x	x	x												
Sam	2					x	x	x	x								
Kiera	3									x	x	x	x				
Erik	4													x	x	x	x
Alex	1	x	x	x	x												
Kate	2					x	x	x	x								
Siobhan	3									x	x	x	x				
Ryan	4													x	x	x	x
Grace	1	x	x	x	x												
John	2					x	x	x	x								
Ashlyn	3									x	x	x	x				
Olivia	4													x	x	x	x

Questions:

1) What roll might the size of the propagules play in the success of this exercise?
2) Why is it important to retain a piece of the basal plate with each propagule regardless of size?
3) How might the appearance of a "daughter" bulb at the base of a mature amaryllis relate to any results you might obtain in this exercise?

Instructions:

You will be provided with one amaryllis bulb and you will begin by cutting off any roots, peeling off the tunic, and quartering the bulb, longitudinally (i.e., from top to bottom).

+ Cut one quarter piece (again, longitudinally) into two pieces (which equals two, 1/8th whole bulb sections or "chips.")
+ Carefully cut a second quarter piece into four pieces (equals four, 1/16th whole bulb sections/chips.)
+ Cut a third bulb quarter in half longitudinally, then carefully separate the pieces into as many two-leaf scales as possible with a piece of stem tissue (basal plate) attached.
+ Cut the remaining bulb quarter into four pieces and separate into as many two-leaf scales as possible with a piece of stem tissue (basal plate) attached.

Insert all of the propagules halfway into a tray filled with your assigned media, basal plate down.

Lily Scaling

Friday, January 20, 2023

		Sand (Treatment 1)				Redi-Earth (Treatment 2)				Vermiculite (Treatment 3)				Perlite (Treatment 4)			
		Plastic Bag		Tray		Plastic Bag		Tray		Plastic Bag		Tray		Plastic Bag		Tray	
		Out (6)	In (6)	Out (6)	In (6)	Out (6)	In (6)	Out (6)	In (6)	Out (6)	In (6)	Out (6)	In (6)	Out (6)	In (6)	Out (6)	In (6)
Name																	
Marlene & Erica	1	x	x	x	x												
Kevin & Alicia	2					x	x	x	x								
Adam	3									x	x	x	x				
Kimberly	4													x	x	x	x
Sam	1	x	x	x	x												
Kiera	2					x	x	x	x								
Erik	3									x	x	x	x				
Alex	4													x	x	x	x
Kate	1	x	x	x	x												
Siobhan	2					x	x	x	x								
Ryan	3									x	x	x	x				
Grace	4													x	x	x	x
John	1	x	x	x	x												
Ashlyn	2					x	x	x	x								
Olivia	3									x	x	x	x				
Tori	4													x	x	x	x

Instructions:

You will be assigned one of four media treatments:

- Sand (Treatment #1)
- Redi-Earth (Treatment #2)
- Vermiculite (Treatment #3)
- Perlite (Treatment #4)

You will remove a total of twelve scales from each of two lily bulbs.

- Combine the first six scales you remove from each bulb and mix together. These will be identified as "outer" scales.
  + Mix six of these scales with your media in a plastic bag and stick the other six, base down into a small tray of your media.
  + Repeat the process above with the twelve combined "inner" scales.

Questions:

1) What, if any, visual/physical differences are there between the "outer" and "inner" scales?
2) What is the advantage(s) of placing scales in plastic bags versus trays? Should the trays be placed in plastic bags?
3) How might the various media effect the rate of success of this exercise?
4) What other questions do you believe would be important to ask?

Hyacinth Scaling, Scooping and Scoring

Friday, January 20, 2023

		Sand (#1)				Redi-Earth (#2)				Vermiculite (#3)				Perlite (#4)				(A)	(B)
		Bag		Tray		Bag		Tray		Bag		Tray		Bag		Tray		Scoop	Score
		1/4	1/8	1/4	1/8	1/4	1/8	1/4	1/8	1/4	1/8	1/4	1/8	1/4	1/8	1/4	1/8		
Name																			
Kevin	1A	x	x	x	x													x	
Adam	2B					x	x	x	x										x
Kimberly & Alicia	3A									x	x	x	x					x	
Sam & Marlene	4B													x	x	x	x		x
Kiera	1A	x	x	x	x													x	
Erik	2B					x	x	x	x										x
Alex	3A									x	x	x	x					x	
Kate	4B													x	x	x	x		x
Siobhan	1A	x	x	x	x													x	
Ryan	2B					x	x	x	x										x
Grace	3A									x	x	x	x					x	
John	4B													x	x	x	x		x
Ashlyn	1A	x	x	x	x													x	
Olivia	2B					x	x	x	x										x
Tori	3A									x	x	x	x					x	
Erica	4B													x	x	x	x		x

Instructions:

Scaling:

You will be assigned one of four media treatments:

- Sand (Treatment #1)
- Redi-Earth (Treatment #2)
- Vermiculite (Treatment #3)
- Perlite (Treatment #4)

You will divide one-half of one bulb in half (1/4's), divide the other bulb half into quarters (1/8's), and then create as many individual scale propagules from each section as possible.

You will place half the scale propagules into a moistened media filled plastic bag and the other half you will insert into moistened media in small tray.

Scooping/Scoring:

You will be assigned to either scoop or score a second bulb.

Scooped/scored bulbs will be set upside down on wire racks in the greenhouse to cure over the weekend.

Once cured, the bulb-filled rack will be transferred to the wire shelfing in the greenhouse vestibule.

Questions:

1) Upon completion of this activity, what is your opinion of the "ease" with which each technique is performed - i.e., if told prepare as many bulbs as possible in one hour, which technique would you choose? Thoroughly explain your answer.
2) Which technique do you believe will lead to the greatest number of new plants?
3) How do you anticipate quantifying "success" at the conclusion of this project?