Postharvest Sample Questions Sample Questions - Morphology, Structure, Growth & Development

Describe some of the different ways that one might group and classify horticultural commodities and why are such classification schemes useful?

(T/F) Perishable horticultural commodities come from every part of an ideal plant and flower.

Give an example of a horticultural crop from each of the following parts of an ideal plant:

Root:

Underground Stem (Tuber):

Petiole:

Leaf Blade:

Stem Sprouts:

Axillary Buds:

Flower Buds:

Describe how the surface area to volume ratio changes with increasing size for similar shaped produce.

How does a commodity's surface to volume relate to gas exchange and water loss?

Larger grapefruit and tomatoes have a (higher/lower) surface to volume ratio than smaller ones.

Discuss some of the morphological changes in perishable commodities that we may want to stimulate or prevent to maximize quality?

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For each of the following groups of horticultural commodities, indicate its relative rank from 1 (lowest) to 5 (highest) with regard to the postharvest characteristics listed. Give an example of a commodity in each group.

	Characteristic		
	Respiration	Susceptibility	
Group	rate	to water loss	Example
Rapidly growing			
vegetative structure			
Bulky storage organ			
Immature fruit			
Mature climacteric			
fruit (unripe)			
Matura alimatoria			
Fruit (ripe)			

Draw a single sigmoid and a double sigmoid growth curves. Give an example fruit for each. When does cell division primarily occur in each?

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Define the following:

Growth:

Development:

Maturation:

Ripening:

Senescence:

Aging:

Physiological maturity:

Horticultural maturity: