



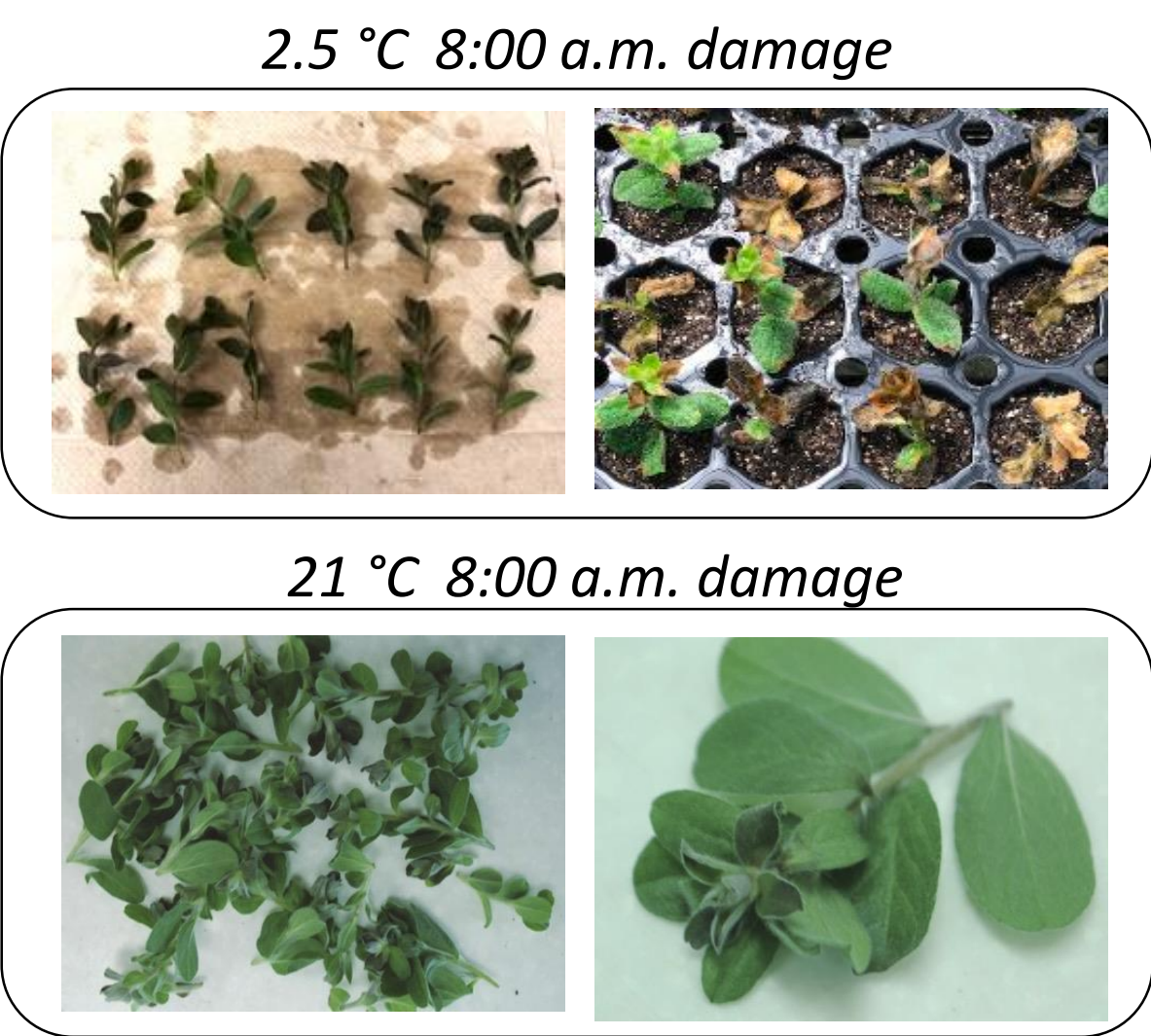
Post-Harvest Handling Procedures for Evolvulus Unrooted Cuttings

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Background

Evolvulus URC's can be difficult to ship thus some propagators grow stock plants in the U.S. to avoid postharvest losses.



Objective

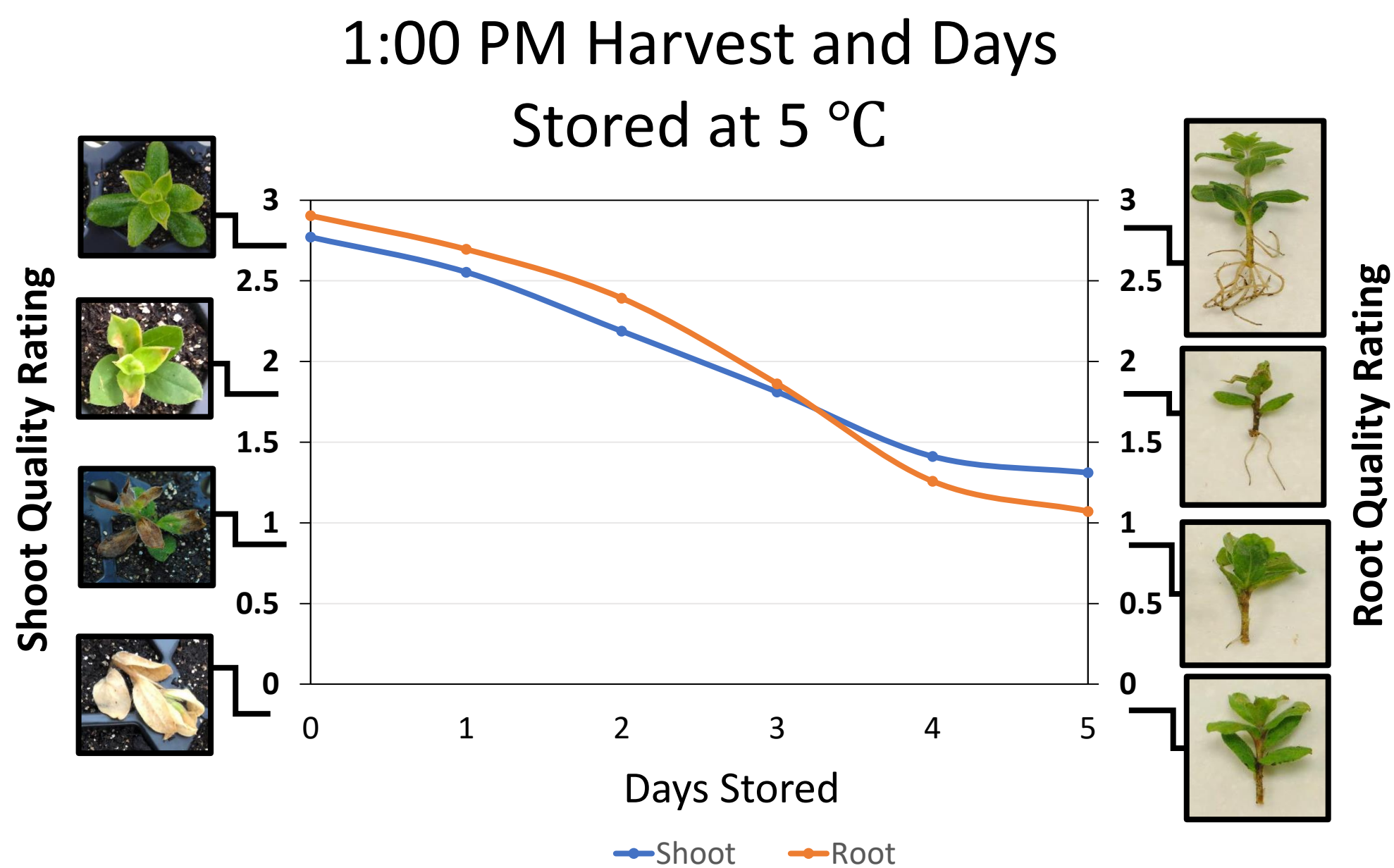
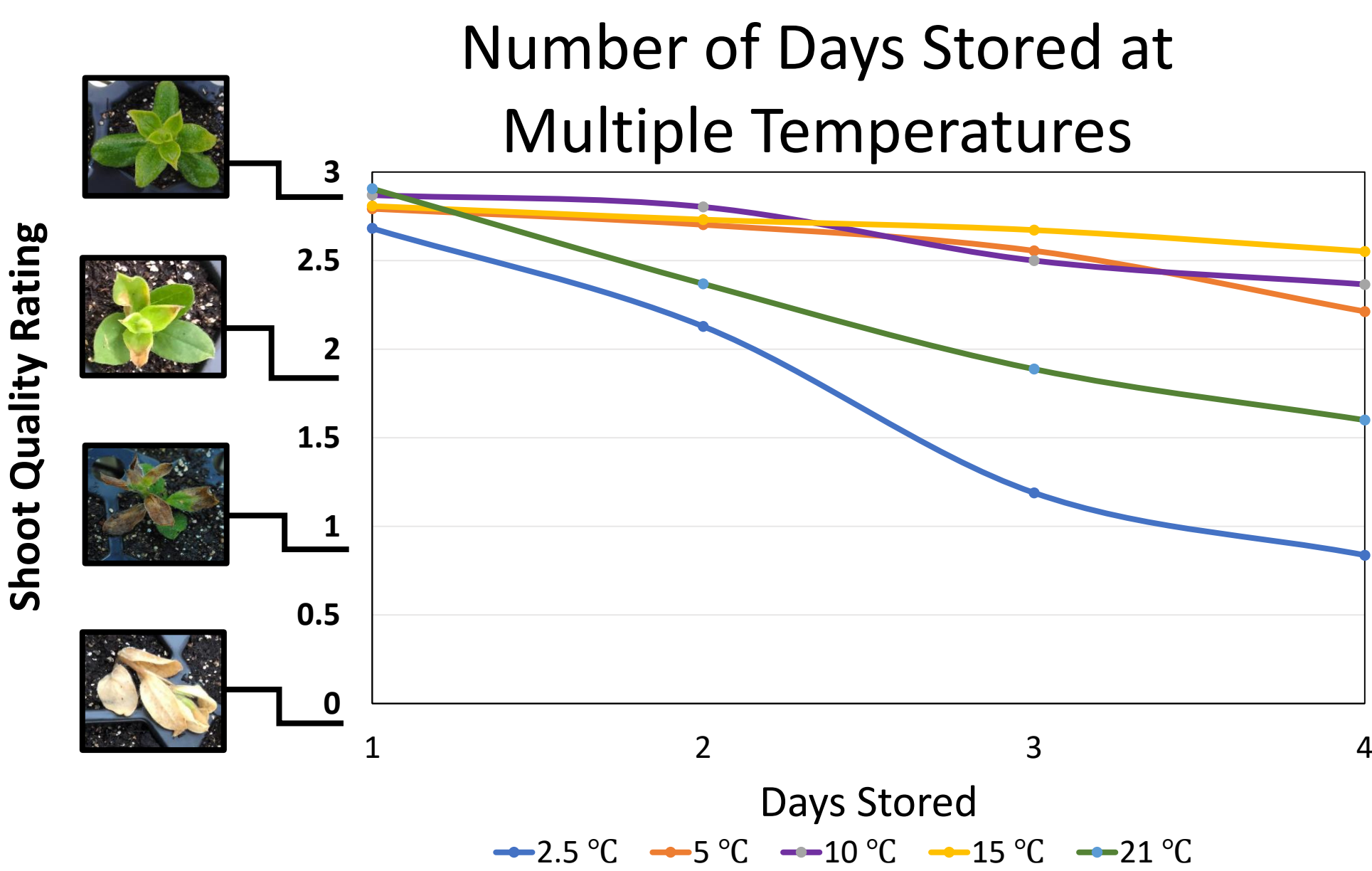
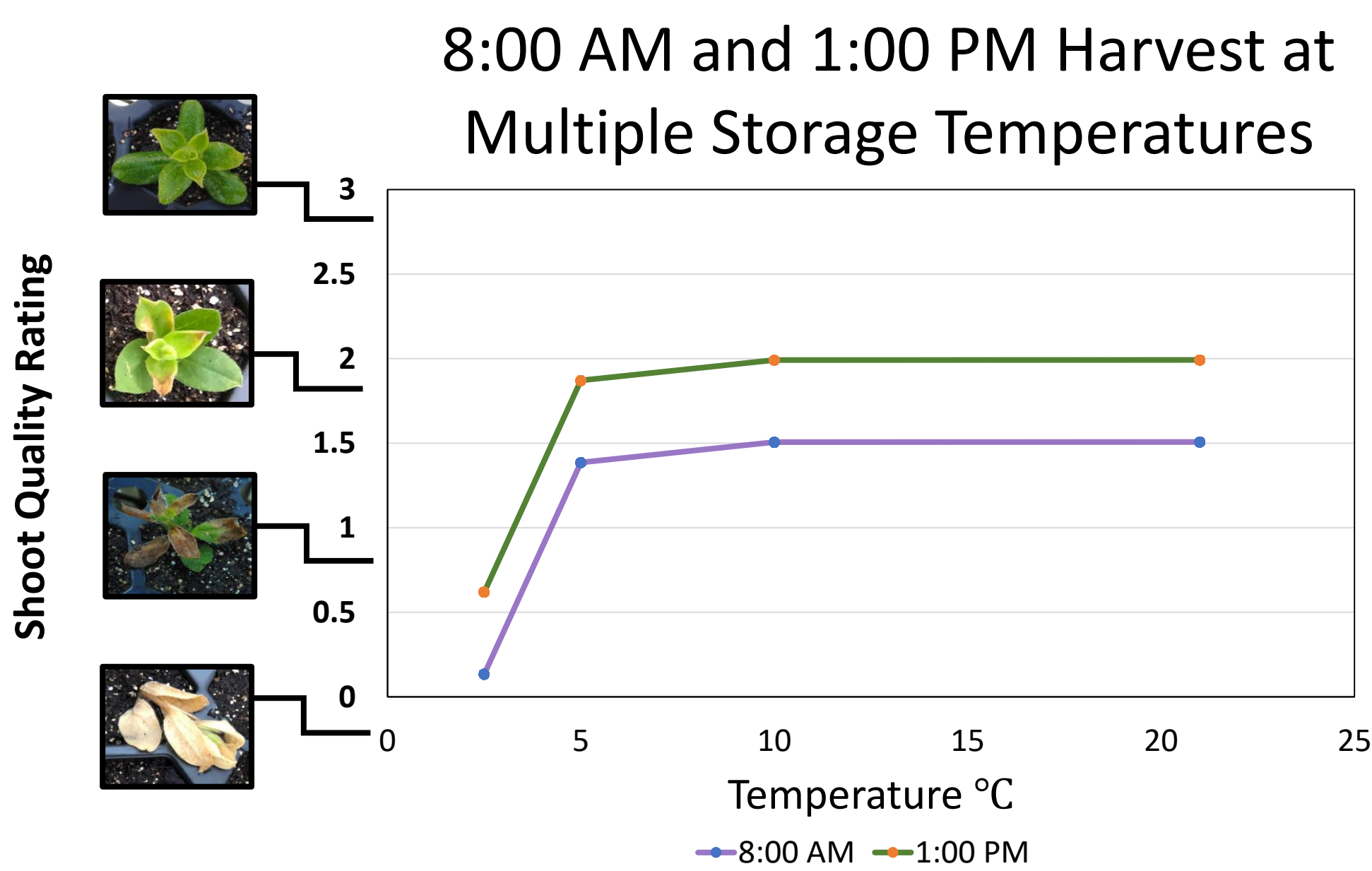
To develop protocols that would allow for the offshore production of URCs while eliminating postharvest losses in propagation. The main factors to be considered were:

- Time of harvest
- Shipping temperature x duration of exposure
- EthylBloc sachets
- URC density in plastic shipping baggies
- Ventilation (hole area) in plastic shipping baggies
- Pinching shoot tips prior to shipping

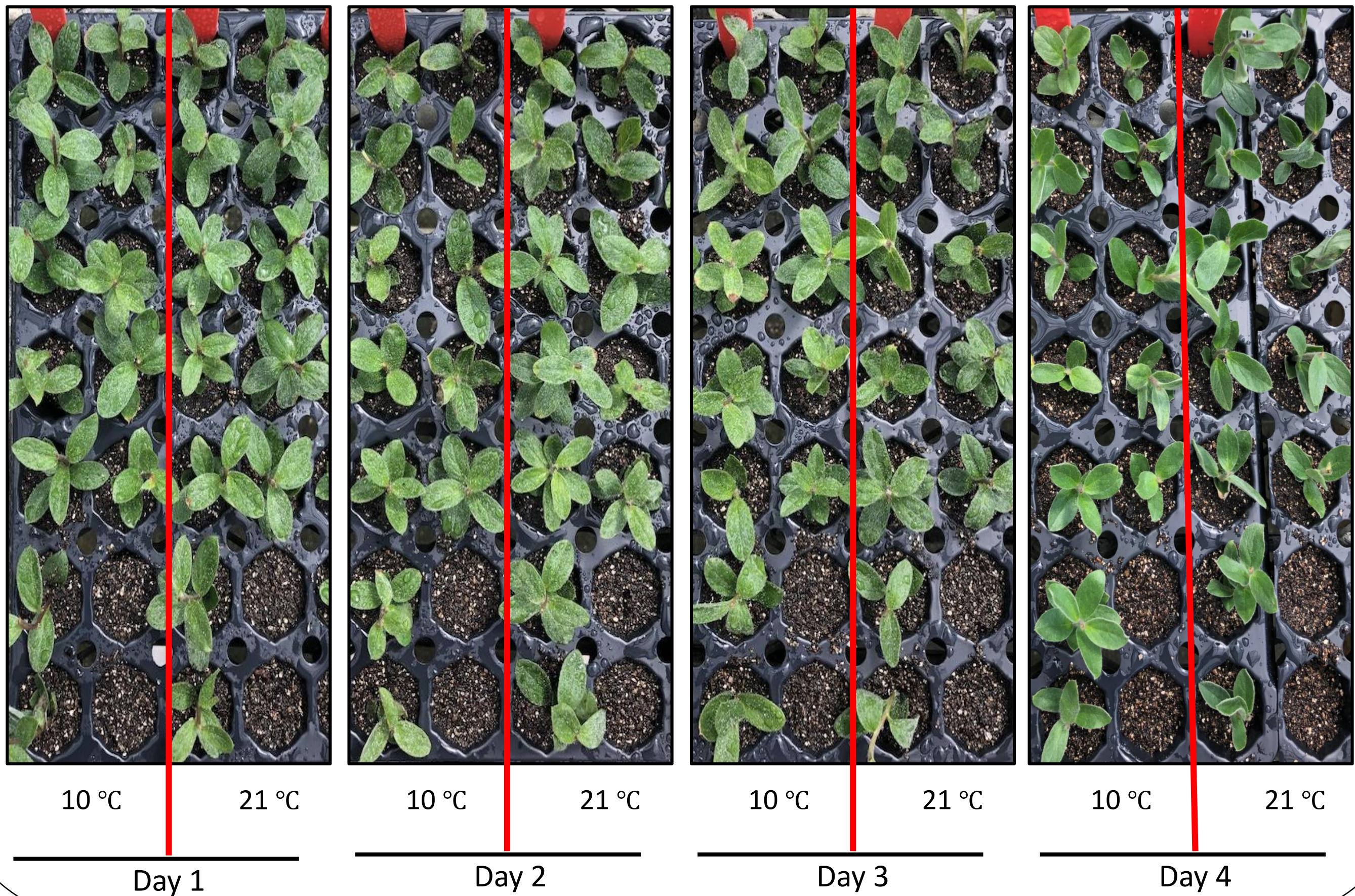
Procedures

- Expt. 1.** Harvested cuttings from Evolvulus 'Blue My Mind' were taken at 8:00 a.m. or 1:00 pm, placed into Ziploc bags with then placed at 2.5, 5, 10 or 21 °C for 3 days of storage before stick.
- Expt. 2.** Cuttings were harvested at 1:00 p.m., placed in Ziploc bags and stored at 2.5, 5, 10, 15 or 21 °C for 1, 2, 3, 4 or 5 days.
- Expt. 3.** Cuttings were harvested at 1:00 p.m., placed in Ziploc bags and stored at 5 °C for 1, 2, 3, 4 or 5 days.
- Expt. 4.** Cuttings were taken at 1:00 p.m. and packed into Ziploc bags at a high density (13g. FW), with half of the bags containing EthylBloc sachets and stored at 2.5, 5, 10, or 21 °C for 2 days, then all were moved to 21 °C for 1 day.
- Expt. 5.** Cuttings were taken at 8:00 a.m. and packed into Ziploc bags at densities of High (15g. FW), Medium (7.5g. FW), and Low (3.75g. FW). Half of the bags were perforated with a needle at 1 sq. inch spacing. Cuttings were stored at 5 °C for 2 days, and then moved to 21 °C for 1 day.
- Expt. 6.** Cuttings were harvested at 1:00 p.m., along with pinching of the shoot tips and then stored in Ziploc bags at 10 °C and 21 °C for 1, 2, 3, or 4 days.

Results



Pinched Shoot Tips of Harvested Cuttings
Taken at 1:00 PM and Stored at 10 & 21 °C



Summary

The recommended treatments will allow for a 4-day shipment at temperatures up to 21 °C without visual damage to the cuttings and with good rooting.



Recommended Treatments:

Time of Day:	PM harvest
Temperature:	5-15 °C
Max Postharvest Duration:	4 days
Shoot tip:	Pinch
EthylBloc:	No response
URC Packaging Density:	No response
URC Package Ventilation:	No response

Acknowledgements

