

## Keys to Know How®

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### INTRODUCTION

The gift of life is a wonderful thing, but to be blessed with the gift of propagation is a most wonderful and exciting thing indeed, especially when we know how to find the keys to unlock the gift to bring life to millions of new generations of plant material. It is only then that we can fully and properly use our gift to give us our full potential as propagators. There is more to propagation than just sticking cuttings or planting seeds. It is helpful to identify the key aspects to our propagation knowledge and how to apply them. The very foundation of our Society, which rests on the key words “seek and share” is about seeking and sharing knowledge and how we use that acquired knowledge. It is not a bad thing to be occasionally reminded of the Society’s motto especially in today’s competitive, business like society. We all have skills or ability in some facet of propagation and they are ours to use the best we can. We should use our skill and ability as fully and properly as possible to give us our full potential as propagators. We should share our knowledge and seek new knowledge to help make the world of propagation and flora even more interesting and exiting. Today I have come to share with you some of my valuable “keys to know how” that I found through my recent travels to the United States, seeking and sharing visits to Florida, Los Angeles, and San Diego

### KEYS TO KNOW HOW IN SUCCESSFUL PROPAGATION

As propagators we all need to be aware of what is happening to our crop. Our crop is dependant on our close watch and our skills for its survival. We need to use our eyes to continually survey and monitor the crop and our ears to listen to what the crop is saying. Such may be; adjust the watering, I am too wet; or increase the ventilation, I am right for disease. Here are some of the keys I picked up for successful propagation of perennial-type plugs, but these can be applied to most crops.

**Key 1.** Open your eyes look ahead. Set out a comprehensive plan of what you want to achieve and lay out the parameters of how, who, and when.

**Key 2.** Diligent preparation and start with good clean stock.

**Key 3.** Collect and process the cuttings with urgency, as degradation costs money.

**Key 4.** Keep work stations clean. Have your staff scrub up with soap and a brush. Disinfect workstations and implements including foot baths when handling free-of-known virus (FKV) and elite stock.

**Key 5.** Make the right choices. Chose a suitable clean reliable medium and the correct methods to prepare and carry your cutting through its various processes.

**Key 6.** Train your staff. Seek their favor by sharing with them all you have learnt over the years. It will certainly make theirs and your day easier and help you to your final goal.

**Key 7.** Check your plan again. You are about to enter the most important phase, the rooting phase of this cutting that has no other means of support than you.

**Key 8.** Remember the leader has the key. You are the driver, your job is to use your skills to ensure the success of your crop, and all around you.

**Key 9.** Check your facilities. Water, heating, ventilation, and shading should be checked, making sure they are what you need for the particular crop you are processing.

**Key 10.** The rooting phase. Now you have set your crop out, you are underway. The rooting phase is the time where your skills you have as a propagator are put to the test.

**Key 11.** Constantly monitor the rooting phase and watch all conditions closely. Know how to regulate for all the weather conditions you may face. This is where the eyes must be seeing and the ears must be hearing; inattention can be costly. The most important skill right now is to strictly monitor your water application and continually check your crop along with your plan. Watch watering, heating, light levels, and ventilation. Water is one of your most necessary requirements and used wisely, it can be the foremost tool to achieve the required result of your plan.

**Key 12.** Check again and if you think you've seen it all check again. You should still be constantly monitoring your crop controlling your water, heating, ventilation, and light levels as well as the health of your crop

**Key 13.** Be prepared by use of aggressive water management without relying on chemicals to cover poor water management. Aggressive water management will help with many problems such as leaf drop, disease, stretch, and a healthier root system.

**Key 14.** Check your crop again. How much time did you allow on your plan for rooting to start? It is very important to monitor your crop and be prepared for action when the first roots show:

- Decrease your foliage-dependant water.
- Increase your light.
- Increase your ventilation.
- Reduce your heat.

Start to periodically stress your plant slightly, looking all the time to reduce stretch, and give tone.

**Key 15.** Control your water as this is a time when plants tend to be over watered.

**Key 16.** Heading towards your finished plant. Time to tone your plant for the next stage and check your plan for finishing specifications.

**Key 17.** Tone your plant. Check your specifications and apply only those processes that are required:

- Condition crop to customers requirements.
- Size. Pinch or trim to shape.
- Nutrition. Fertilizers.
- Plant Growth Regulators (PGRs) for certain crops. Now is the time to apply before they bolt.
- Pesticides for known problems.

**Key 18.** Pay back time. If you have followed this process diligently, kept your eyes and ears open and used your skills wisely, it is time to get pay back on your attentive work. This is all part of your investment in this whole process.

**Key 19.** Take a break. You have worked hard, used your skills and keys well to produce an excellent crop. Remember it is of extreme importance to take time out now, to diligently refresh and replenish yourself. Many a diligent operator fails here because they overwork and loose their sharpness.

**Key 20.** Continue to seek and share and learn all you can.

If you are an I.P.P.S. member thank you for joining our Society. I hope I may have a chance to meet with you one day and share with you the wonders of propagation. If by some chance you are using this article as a reference and are actively engaged in propagation and not a member please take my invitation to join.

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## Human Issues in Horticulture®

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### INTRODUCTION

Human issues in horticulture involve refocusing research from the traditional areas of the mechanisms of plant growth and the production and maintenance of crops to understanding of the humans who produce and utilize the plants, the role that plants have in life quality, and the application of horticulture to all aspects of daily life. It has only been in the last 25 years that a significant amount of research has been accumulated in this aspect of horticulture. Research from a number of areas, including environmental psychology, urban forestry, horticulture, landscape architecture, and health care is causing professionals and policy makers to consider the role of horticulture in human life quality. Professionals associated with urban issues working in such areas as housing, public policy, community and economic development, policing, education, sanitation, and public health are beginning to recognize and promote benefits that urban forestry/horticulture can provide. For the purpose of this paper the study of human issues in horticulture has been divided in to the following areas: physical environment modification, urban revitalization and economic development, human health and well being, human culture and evolution, education, and horticulture industry issues.

### PHYSICAL ENVIRONMENT MODIFICATION

This includes improvements to urban air quality, water quality, heat reduction, and wildlife habitat that have all been documented and quantified to some extent. In addition, environmental remediation or clean-up continues to be of vital and direct economic and life quality benefit with plants helping solve many of our urban problems such as brownfields, waste-water treatment, storm-water management, and carbon sequestration.