SUMMARY

I conclude with these thoughts: I want to sell young expensive plants; I do not and cannot sell over-sized, undervalued plants. Additionally, selling young plants, in most cases, is profitable. I only grow commodities if I am the lowest cost producer. Geographic advantages, climatic advantages, and low cost of production allow me to compete and win in the commodity markets.

It is critically important to know that I have propagated noninvasive cultivars. Also critical to me is that what I propagate performs in the nursery, the market, and the landscape. What level of ethics do you maintain when determining the propagation schedule?

As our industry has matured, we are definitely in the mainstream of consumerism. We compete with other hobbies and other leisure necessities for the consumer dollar. We must take notice that the modern consumer wants style, value, new and improved qualities in all their purchases, whether that is appliances, fashion, or garden plants — and we must respond to these wants, demands, and opportunities. This is an exciting, yet challenging, time to make good decisions of what to propagate. When you make the right choices, the results will be quite rewarding. Do not be afraid of exercising the influence you have in the marketplace.

Propagation of New Introductions[©]

Mark Griffith

Griffith Propagation Nursery, 2580 Antioch Church Road, Watkinsville, Georgia 30677

INTRODUCTION

New plants have become the driving force in ornamental horticulture in the 2000s. They provide excitement for the veteran nurseryman to the casual gardener. A new trend, in the slow-to-change nursery business, is to aggressively market our products to the end consumer. The new plants, brand names, colored containers, colored tags, and large timed releases are all part of the equation. The large timed release is where Griffith Propagation Nursery becomes involved. We work with many nurseries and plant patent agents to get the new liner plants to the wholesale growers in sufficient numbers so that they will have a finished product ready for the preplanned release to the public. It is not uncommon that the quantities required are close to 400,000 liners.

The production of the new plants requires large amounts of space and facilities. In 2002 we purchased an abandoned hog farm that had been idle for 10 years. The 13-ha (32-acre) tract included nine parlors approximately 99×12 m (325×40 ft) of poured and slated concrete. The property also had three wells and a 3-acre lagoon. The timing of this purchase happened about the same time we began having discussions with nurseries about helping to build numbers on new plants for future production. We decided to devote our new location solely to the production of new products.

On the first pad, which was solid concrete, we built fourteen 6 m \times 11 m (20 \times 36 ft) propagation houses with bottom and top heat. All these houses have a fine mist system, fans, and shutters. On the second pad we built a 12 m \times 99 m (40 \times 325 ft) greenhouse with thermostat-controlled side curtains and heaters. This facility is

used to produce and hold the stock plants during the winter. Winter production is a necessity in meeting the release dates and quantities. The liners produced in the 14 propagation houses are moved to the heated holding house once they are rooted and the cycle repeats itself. The liners moved to the holding houses also become stock plants. The third pad is an uncovered area used to hold and grow out the liners in the warmer months. The fourth pad is $15 \text{ m} \times 99 \text{ m}$ (50 ft $\times 325 \text{ ft}$) and contains a slated concrete floor system that drains into a 1.5 m (5 ft) pit and returns to the lagoon. This greenhouse has top heat and a heat system that blows the heat into the pit area. A fan system under the floor moves the heat throughout the greenhouse. We use this house to grow 1-gal stock plants throughout the year. The fifth pad is also $15 \text{ m} \times 99 \text{ m}$ (50 $\times 325 \text{ ft}$) and contains a system as the fourth pad. This greenhouse is used for propagation. This house holds around 150,000 liners.

We constructed a large pad with six 6 m × 22 m (20×72 ft) cold frames. We left 8.5 m (28 ft) between each structure for additional space. We have the ability to cover the whole area with shade using the greenhouse and cables for support. This area is used to hold liners, as well as grow stock plants. Our normal production is taken from stock plants in the ground at the nursery. Due to the numbers required we were forced to start a 1-gal and 3-gal production area. This section is used for this type of production. We added another 232 m² (2500 ft²) of cold frame area this fall for more growing area.

Because of the large amount of heated area we installed a 100 kw diesel generator with automatic transfer for backup power. With hundreds of thousands of dollars of plant material, the \$20,000 investment was a no-brainer.

PRODUCTION

Since all these products are new, we usually start with less than one hundred cuttings. With some plants we have started with one cutting. In a best-case scenario with 100% rooting we can go from 10 cuttings to 50,000 cuttings in 2 years. This means we will begin production 3–4 years before the scheduled release date.

We work closely with the managing nurseries and patent agents to determine when the liners need to be to the growers so they can finish the appropriate container size by the release date. We try diligently to get the product to the different growers all at the same time so that everybody's containers are ready at the target date.

Advantages of Large Quantity Production of One Genus, Species, or Cultivar are:

- Water, light, fertility, and chemical requirements are the same in the propagation area.
- Propagation areas are filled and emptied in a more regular and predictable schedule.
- Percentage of rooting is higher with one product production per zone or house.
- A majority of the product is sold in advance.

Disadvantages of Large Quantity Production of One Genus, Species, or Cultivar are:

- Winter production and high heating cost.
- Large container stock is required.

- Large amounts of cold frame and heated greenhouse space are required for holding product.
- Product is held for a long period till sufficient numbers are available to all vendors.
- The stress of knowing that everyone is counting on you. There is no backup or plan B.
- Over-production is unavoidable because under-production is unacceptable.
- You are the "one night stand" of horticulture. We are used to getting nurseries started in production and then they produce their own liners.
- Plants react differently to heating during the winter months. Hydrangea macrophylla 'Lady in Red' PP# 15,175 grew without problems the whole winter. The Razzle Dazzle[®] crape myrtle series responded poorly to no dormancy. The crape myrtles that were given cold and dormancy and then brought into the heated houses did well. Hydrangea quercifolia 'Vaughn's Lillie' PP# 12982 produced zero cuttings and struggled in the spring when given constant heat and no dormancy. This was also the case with Calycanthus 'Venus' PPAF.

TRIAL AND EVALUATION

The southeastern U.S.A. is without a doubt the hotbed of new plants and plant sales. Through years of establishing relationships with fellow nurserymen, universities, patent agents, and plant nuts, we are constantly trialing new plants. We evaluate plants from the U.S.A. and many foreign countries. We are very involved in giving information and observations about these new products. The Southern U.S.A. can be rough on many plants. What looks great in Oregon, England, or Pennsylvania does not always do well in Georgia. Griffith Propagation and our associates work very hard to test these plants to ensure they are worthy of the intense marketing necessary for them to succeed.