

# QUESTIONS TO ASK WHEN PLANNING TO START A WHOLESALE PLANT NURSERY



*Trees in 36-inch boxes in a wholesale nursery ready for sale.*

## Introduction

Starting a plant nursery is an idea many people who like to grow plants consider at one time or another. It can be triggered by the idea of investing savings or an inheritance in a business, inheriting a piece of land, or turning the hobby of collecting and growing plants into an occupation. Interest in starting a new nursery business seems to peak when business for existing nurseries is good and the market is expanding. The nursery industry has gone through several cycles of prosperous growth and decline in the last decades. The demand for nursery products is closely tied to new construction among other factors and rapid growth in population and construction is generally associated with thriving sales of nursery products.

However, a nursery business is much more complex than most novices in the industry envision. Two major components for running a nursery are the technical aspects of growing plants, such as management of the environment, plant nutrition and irrigation, pests and diseases, and the business aspects of managing production, labor, customers, distribution and other activities associated with a business. Skills in both areas are essential for a nursery to be successful. Since plants are a perishable commodity, they require care 7 days a week and immediate action

is required during inclement weather or in case of emergency such as a break in a water line or power outage. This responsibility is a constant in the nursery business.

The broad term plant nursery includes different types of businesses such as retail and garden center, wholesale, and mail-order nurseries. While some nurseries try to offer a bit of everything, many production nurseries specialize in one area such as large trees and shrubs, liners, annual bedding plants, herbaceous perennials, cacti and succulents, roses, or daylilies, just to mention a few of the many specialized operations.

The information provided here is an introduction for those interested in starting their own business specializing in wholesale nursery production. These businesses sell their product generally in larger quantities to buyers such as retail nurseries, garden centers, landscape contractors, or other wholesale nurseries. Some wholesale nurseries offer additional services such as retail, landscape design and installation. Following is an overview of the different types of nursery production common in the Southwestern United States, information on starting a business, economic considerations, and a resource section.

## Types of nursery production

Nursery operations either offer a general diverse palette of plants or they specialize in one class of plants or size of plants. Specialty nurseries in the Southwest include native trees and shrubs, cactus and succulents, palms, ground covers and vines, tree fruits and nuts, bare root roses, annuals and herbaceous perennials, and plants for reforestation or re-vegetation. Some nurseries specialize in propagating materials for other nurseries and provide seedlings, cuttings, or grafted plants.

The two basic types of nursery production systems are growing plants in containers or in the field. Each production system has different requirements for land, structures, equipment, and labor. The location of a new nursery, water quality, access to raw materials, labor, services and infrastructure are also important factors to assess depending on what production system is chosen.

**Container production** is the most prevalent type of ornamental plant production in the Southwestern United States, although the climate in the Southwest favors both container and field production. Container production takes advantage of year-round growing and marketing, compared to the more seasonal harvesting of field-grown nursery plants. Land quality and size are critical characteristics for a field nursery. Soil workability, texture, depth, and drainage are vital for field production, while they are of lesser concern for a container production site. Minimum land requirements for a profitable container nursery are estimated at 10 acres compared with 30 acres for a field nursery. Water and fertilizer management are generally more intensive in container production because of the limited media volume and limited buffering capacity in pots. Labor requirements for container nurseries are higher with up to one employee per acre in actual container production (total acreage minus acres in roads, buildings, etc.) versus one employee for 5-20 acres in field production. A field nursery in a colder climate tends to have more fluctuating needs for workers, usually with peak demand during planting and harvesting operations, while container nurseries employ a more steady labor force. However, the mild climate in the low desert regions of Arizona allows digging of field-grown plants almost year-round.

Container plants are most often grown above ground on a bed of gravel. Plants grown in pots smaller than 1 gallon are often placed in structures for protection from undesirable environmental

conditions while plants in larger containers are mostly grown in full sun conditions. Pot-in-pot growing systems have been developed where the pots with plants are set in a slightly larger pot that is sunk almost to the rim into the ground. This system minimizes fluctuations in root zone temperatures and prevents plants being blown over, a common problem with larger container stock.

The production of container plants is most popular because of their great flexibility of almost year-round production and marketing in the Southwest. The lighter weight of container plants grown in organic medium reduces shipping costs compared to plants grown in the field that have a heavier root ball with mineral soil.

**Plants grown in the field** are dug by hand or machine and are marketed as bare root, balled and burlapped, or containerized plants. Bare root plants have a root system without soil or packaging protection and marketing of bare root plants in the Southwest is limited to a few ornamental species such as roses, deciduous trees and field grown cacti. Roses and deciduous trees can only be dug and transported bare root while dormant because their root system is very susceptible to desiccation. Balled and burlapped plants have an intact root ball with soil that is wrapped in burlap. This type of product is usually marketed only over short distances from the production fields because of the weight. Plants dug from the field, from existing landscapes, or in the wild with a root ball and transferred to a container are referred to as containerized plants. They can be kept in a container until they outgrow the rooting media. In Arizona, balled and burlapped trees are mostly confined to palms in the lower desert and conifers at the higher elevations.



*Cuttings from mature rose plants will be used for planting stock in spring.*

## Starting the business

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Starting a nursery business is not all about plants. The focus of the business is one of the most important decisions in the development stage of a nursery. Before the business can have a name, be incorporated, have owners, land, equipment and structures, the following questions need to be answered. What product will this nursery sell? Is there a market demand for the product? Who are the customers that will buy the product? How will the product be distributed and how will it be marketed? After those questions are answered, then the structure of the business can be developed, the type of ownership can be determined, and prospective land can be considered for purchase or development.

Studying current and future market demands and trends, plant material for sale by nurseries and identifying

possible niche markets will aid in focusing the future business. After assessing demand and supply, the type of production and the plants to be produced has to be decided upon. Competitors need to be identified and a feasibility study conducted to determine if the demand is sufficient to support another business in the targeted area. A clear purpose with well defined focus for the nursery is crucial to develop a solid business plan, obtain financing, suitable land, and appropriate permits and licenses. Changing production type or plants halfway through developing a nursery is not advisable and can have disastrous effects. Water rights, building permits, zoning restrictions, and loan payback schedules may all be affected if different equipment, supplies or structures are needed or if the production schedule and time to marketing will change.

## Economic Factors

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Financial management is a critical aspect of a nursery business and requires expertise in accounting and legal knowledge. Establishing a nursery requires start-up funding to purchase expertise in the planning process, land, permits, equipment, structures, supplies, and labor. Developing plant production and a customer base simultaneously is critical for the success of a nursery.

Sources of money for the establishment of a nursery are usually personal savings of one or several owners and borrowed funds. The amount owners invest in the nursery indicates the commitment of the individual to the business and may determine the amount of credit from financing institutions. A number of options exist for obtaining borrowed funds. Limited partnerships may be developed in which a number of creditors put up the capital needed for the nursery, and they share in the business decisions and the profits. A nursery may engage in contract growing, a procedure by which a nursery agrees to grow a particular crop at a specified price for another firm and in return receives the financing necessary to produce such a crop. Such an arrangement can be mutually beneficial. The borrower has a guaranteed market and the lender has the benefit of purchasing a product at a fixed price. To obtain a loan from a financial institution, the proposed nursery must provide detailed financial data audited by a certified public accountant, information on the objectives and management of the proposed nursery business, and the business organization.

The long time period between investment and first payback is one of the financially daunting aspects of nursery

development. Crop cycles of woody plants often span several years. The lack of market information and business profiles may present obstacles in obtaining a loan. One possibility to tie over the first years of no income is to grow fast-maturing crops such as annual bedding plants or other herbaceous crops that can be produced in a few weeks or months and provide cash flow until the target crop is ready for sale.

When establishing a new nursery, many costs need to be estimated. Validation of these estimates by a nursery business in the vicinity or by an experienced grower can be helpful to budget nursery development and production costs accurately. The lending institution generally requires a plan for the payback of the loan. If the nursery land, equipment, buildings, and plants are used as collateral, then these assets are assigned an estimated forced-liquidation value. This value is usually quite low. The amount of a loan and specific terms should be negotiated with several institutions, preferably those experienced in agricultural loans, to find the most favorable financing for the new business.

Economics will influence the selection and development of a nursery site. The major factors that will determine success or failure of a nursery business are production costs, plant quality, competition, and available capital. Competition can influence price and in some cases plant quality. Capital availability until plants reach market size and are sold will require several years and is vital for the survival of a new nursery.

## Resources

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Trade organizations that serve the interests of nursery growers and allied businesses in the Southwest are the Arizona Nursery Association and the California Association of Nurseries and Garden Centers. The American Nursery and Landscape Association is the national voice of the nursery and landscape industry. Services these organizations provide include education, updates on legislative and regulatory issues, buyer and supply directories, representation of member interests, and updates on topics of current interest. The organizations publish newsletters, trade magazines, and organize annual trade shows.

Specialized associations are active in promoting the interest of a particular group of plants. The International Plant Propagators' Society seeks and shares knowledge on propagation of plants among members. Membership in the United States is served through the western east-

ern, and southern regional divisions. The Perennial Plant Association is dedicated to improving the perennial plant industry by providing education to enhance the production, promotion and utilization of perennial plants. The International Society of Arboriculture is a worldwide professional organization dedicated to fostering a greater appreciation for trees and to promoting research, technology, and the professional practice of arboriculture. Many other organizations are dedicated to specific plants such as roses, daylilies, iris, orchids, or native plants. Members of trade or specialty organizations have access to information that can be helpful for a nursery grower. Contact with local growers and getting first hand knowledge of a working nursery operation is another way to understand the many facets of a wholesale nursery.

## Suggested References

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Avent, T. 2003. So You Want to Start a Nursery. Timber Press Inc., Portland, Oregon.

Davidson, H., R. Mecklenburg, and C. Peterson. 2000. Nursery Management, Administration, and Culture. 4th Edition. Prentice Hall, Inc., Englewood Cliffs, New Jersey.



*Work in a field nursery is more seasonal and concentrated during planting, harvesting, and shipping.*



*Automation in container nurseries can help workers in transplanting and movement of plant.*

# Worksheet of questions to consider when planning to start a new wholesale production nursery.

## 1. The owner profile (assumes a small start-up business):

<i>Interest and knowledge level</i>	<i>High</i>	<i>Medium</i>	<i>Low</i>
Growing plants relevant for new nursery			
Managing business finances			
Managing employees			
Managing customers			
Daily responsibility for plants			
Building and fixing things			

## 2. The business plan:

✓	<i>Questions to Answer</i>
	What is the purpose of this business?
	What product will the nursery sell?
	What type of production will be used to grow the plants?
	Who are the customers that will buy this product?
	How will the product be marketed and distributed?
	What is the current demand, supply, and competition for this product?
	Where will the nursery be located?
	Who will be the owners and decision makers of this new business?
	How will this new business be financed?
	What are the production costs and time to sell a crop?
	What is the general economic situation and outlook for the nursery industry?
	Are there alternatives to invest money for the same or greater return?



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