

Expanding Your Product Line with Diverse Species

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Abstract.-- Forest nurseries are looking for new markets in addition to their timber revegetation market. Conservation plantings, as well as others, are demanding plant species previously not commonly grown by commercial nurseries. Nursery managers must be market driven when selecting plants to expand their product line. Production strategies must also be considered to maintain profitability.

INTRODUCTION

Forest nursery managers are concerned about the decline in demand for timber species used in reforestation. Nursery managers are becoming aware of the new forest management strategies that use diverse plant species to enhance natural resource conservation and biodiversity. They are looking for other plant species to produce for other markets so as to remain profitable.

There are several nursery markets that forest nurseries might enter. Conservation plantings include a wide range of plant species (Carlson, et. al. 1991). Riparian revegetation and wildlife habitat restoration are other examples of potential markets for forest seedling nurseries. Even in forest replanting, species in addition to timber species will be planted to benefit watersheds, fish, and other wildlife. Other potential market groups to consider are the urban and rural landscape industries, the Christmas tree growers, and the parks and recreation departments.

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Two distinct markets for nursery plants are 1) customers who use the plants, and 2) other producers (Furuta 1974). Plants used by customers are diverse and usually purchased in small quantities. Other producers are more interested in large numbers of single species that perform well and yield a profit.

While research and breeding programs have improved the growth and development of several timber species, little has been done with conservation plants. Actually, conservation markets often require that genetic diversity be preserved. This is attempted by using local sources of propagation material.

Plant characteristics sought by the urban/rural landscape markets focus on plant form and foliage color. Landscape markets also respond favorably to plants with improved survival and adaptation, and pest resistance. Economic conditions that nurseries must stay abreast of are 1) the Gross National Product, 2) inflation, and 3) private residential construction (Johnson and Jensen, 1992).

Clones of Douglas-fir (*Psuedotsuga menziesii* var. *menziesii*) have been identified that perform excellently for Christmas trees (Regan and Proebsting, 1988). Acceptance by Christmas tree growers has been slow for various reasons. Costs of cutting propagated plants are greater and the planting stock looks much different than seedlings. In addition, growers are not familiar with handling clones and growing them. Successful marketing of

Douglas-fir clones would require a good mix of product and service (customer education).

Your market must penetrate every aspect of your business, while your products serve the needs of your customers. Each market group will be looking for a different mix of products and services. In this article, I will discuss details to consider when expanding your product line.

MARKET DRIVEN

Successful expansion of your product line relies on you being market driven. Ketcham (1992) describes five general steps to concentrate on to become market driven. They are: 1) do your homework, 2) place your market first, 3) target your efforts, 4) combine products and service, 5) promote.

You should be spending a great deal of management time gathering information regarding your market. Find out what the short-term and longterm needs of your customers are. Initially, customers are most interested in outplanting survival, establishment costs, and service. Later they focus more on the plants' adaptation to the environment and overall performance. Finally, customers will look carefully at their return on investment for using your products.

Place your market first by listening to your customers and to your potential customers. Are they telling you to change your mix of products and service? Keep in mind who your customers are and if their needs are being met. New strategies in forest revegetation will change the needs of the seedling market. You must be ready for changes in the demand for different plant species, plant size, and plant performance. In Oklahoma, nursery growers rated market demand as one of the most important factors driving expansion (Henderson and Schatzer, 1991).

Efforts to expand your product line should target a specific market. The nursery market is diverse. Determine what part of the market is most compatible with your interests (Behe, 1992). Riparian revegetation projects often require many diverse types of plant material. Can you satisfy this demand? If not, maybe there is another market, such as recreation or small

woodlot plantings, that use only a few different riparian species. You can target more than one market group, but each market group will look to you for something different.

Give customers a reason to buy nursery products from you rather than a competitor. Combine products and service to set you apart from the other nurseries. Quality, service, and competitive price are three important objectives you must strive to meet (Urbano, 1989). Few markets exist that are willing to purchase low quality products. According to Smeal and Coartney (1985) you must have quality plants to enter a market and attract buyers. Service involves good communication with your buyers, prompt delivery, and problem solving.

Good promotion informs a customer what you have to offer and why they should want to buy it. The product must be presented at the time and place, and in the form desired by the customer. Nursery products and related services are in a unique marketing position. Their popularity with the American public is based on desirable traits such as safety, endurance, beneficial, and reasonable price (Smith, 1990). Let potential customers know that if they use Christmas tree planting stock from your nursery, they can expect a 95% outplanting survival rate. Be prepared to deliver what you promote. Promotion is a year round process that begins the first time you answer the phone.

PRODUCTION STRATEGIES

After you identify which plants are in demand, you must decide *which* one(s) to produce. First, consider what advantages you have for growing certain plants. Your soil type, water supply, climate and hardiness zone, and your nursery must be suited to this new crop. Try to choose a product that will fit into your general mode of operation and anticipate shifts in your labor force. The length of the production cycle should also influence your decision.

The transition time it takes to learn how to produce your new product is easier if you use a systems approach. Begin with the required standards (grade) of the new product and the time of year it will be sold. Then work backwards in time from distribution and post-harvest handling,

through production to propagation. This helps you understand the timing of specific operations and to develop a production schedule.

The type of plant you produce is determined by the market. Usually, forest nursery plants are classified as either bareroot, container-grown, or transplants. There are several advantages and disadvantages for each type (Tinus and McDonald, 1979). Changing from one type of product to the next requires different facilities, specialized equipment, and additional capital. What resources are you willing to commit to develop a market and to grow, harvest, and ship the product?

Generally, overhead costs are greater for greenhouse and container operations compared to outdoor field operations. Young plants can be transplanted into outdoor field beds to limit their time in a greenhouse or container yard. The transplant bed should support rapid plant growth and development, and lend itself to nursery operations (weed control, irrigation, harvesting) and result in a plant with a well-developed root system and a well-budded shoot.

Selecting the best propagation method for the plant is another challenge you must face. Again your bucket will be your leading indicator whether to choose either seed propagation or vegetative propagation. For each plant, consider the known propagation techniques and what growth and form characteristics are desired.

Eastern redcedar (*Juniperus virginiana*) and Rocky Mountain juniper (*Juniperus scopulorum*) illustrate this point. Currently, the demand for junipers for conservation plantings and urban\rural landscapes is excellent in the Great Plains and Intermountain regions (Cregg, 1992). Seedlings are very costly to produce due in part to their very poor germination rate, thus their quantities are limited. Superior juniper plants have been selected for conservation planting characteristics, but they have not been selected for ease in rooting (Van Haverbeke and Read, 1976). Many of the selections are propagated by grafting.

A major portion of forest nursery crops are propagated by seed. Seeds are easier to work with and usually produce economical, vigorous plants (Anderson, 1992). However, they are also commonly used due to lack of

improved selections for vegetative propagation. Other than the timber species (Piesch, 1986), very few genetic improvement programs exist that have led to commercially available seed. Seed propagation can enhance biodiversity projects if the seed used represents the natural variation of the planting site.

Vegetatively propagated forest timber species are being used to a greater extent throughout the world. Gemmel and others (1991) reported that performance of cutting grown Norway spruce (*Picea abies*) was superior to seedlings eight years after planting. Avoid using clones or rooted cuttings that tend to develop poor root systems. Poorly rooted cuttings often develop into poor quality plants. Grafting and micro-propagation (tissue culture) are techniques used to a limited extent in forest nurseries.

The additional work and costs associated with producing cutting-grown plants can be offset by your market demand (Connor, 1985). Propagating plants vegetatively usually requires a greenhouse facility and a skilled labor force. Outdoor rooting beds are a potential alternative to greenhouse propagation of juniper (Wagner and others, 1992).

Product profitability during the initial start-up years can be poor and sales slow. Your commitment must be strong and you must take steps to increase productivity (Hee, 1984). Look for ways to reduce or modify the time it takes to produce the product.

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