

## **Seed Use Efficiency Meeting**

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### **An Integrated Seed-Seedling Supply System**

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The subject of efficient use of seed, in particular A class seed, has arisen twice at Weyerhaeuser. The first time was in the early 1980's, with the initial production phase of our seed orchards, when supply was limited and the goal was to maximize the breadth of acreage that we were able to impact with genetically improved stock. When our seed supply capacity exceeded our requirements, the emphasis refocused on seedling quality and order volume, frequently at the expense of efficient use of seed. This was particularly true as we initiated development of new stock types, where the growing processes were as yet poorly defined.

The increasing use of A class seed, and its increased cost structure, necessitates that growing facilities review their growing processes for improvements which will lead to more efficient use of seed. The seed cost as a component of total seedling cost is a significant proportion, even in an internal supply system, and in particular when an end-user is purchasing A class seed. This component of total seedling cost is often overlooked when the seed is supplied to a contract growing facility by the end-user.

All seed producers, growers and foresters strive to do the very best job possible. Each has their own metrics of success, but sometimes don't include the success of the next in line customer. For the seed producer it is volume of cones harvested and seed yielded, the grower achieving order and seedling specification targets and the forester achieving a target number of trees /land unit and planting cost. These are all good metrics, but are intermediate or component metrics. The absolute measurement of success is the right genetics delivered to a specific unit and survival of the seedlings to free to grow, at the least possible cost. Only then will forestry operations achieve a return on investment that warrants continued investment, particularly in the private sector

At Weyerhaeuser each component of the supply system has their intermediate metrics, but we are collectively held accountable to each other to achieve the successful establishment of the plantations. Each year seed producers and seedling growers visit each internal customer to review the successes and failures of the last and previous planting seasons. In cooperation with each other, and including the nursery and silvicultural scientists, courses of corrective actions are developed to address weak performance. We communicate across the spectrum of the delivery system.

Corrective actions can and do span across each discipline and frequently are articulated from outside the discipline. We have control over our seed, both supply dependability and genetics. We know more about the seedlot attributes than germination, but also its grow habits and frost susceptibility. Growth curves and yields are tracked by seed type and growing prescriptions and growing locations are modified to compensate. We have developed focused physiological requirements for stock types and planting environments. We have achieved, and been able to achieve this because we operate as a system, each held accountable to the other. We have achieved this through good communication.