PLANT TISSUE CULTURE

FOREST BIOTECH GOES COMMERCIAL IN WISCONSIN

RHINELANDER, Wis.—"To my knowledge, this is the first firm in the biotechnology industry which will focus on forestry applications," says Neil D. Nelson, referring to his new company, Forgene.

According to founder and chief executive officer Nelson, the start-up will "use genetic engineering and biotechnology to develop, produce, and sell high-margin tree-planting stock and new genetic techniques for tree crops." Specifically, the company will take advantage of clonal propagation and somaclonal selection techniques to generate conifers that are resistant to cold and chemical stress. Nelson also expects to increase the growth rates by 25–80 percent.

Nelson reports that the annual world-wide market for forest-tree planting stock is a towering \$500 million. He predicts that Forgene's annual sales will reach \$5 million in 1990 and grow to \$40 million in 1995.

Although Nelson will not reveal which forest trees the company will develop first, poplars are a good bet—he worked on poplar culture regeneration through the end of

Forgene's logo, like the company itself, emphasizes the high-tech approach.

1985 in his role as leader of the U.S. Forestry Service's biotechnology program. In fact, Forgene has set up a production division—called Insti-Trees Nursery—that is scheduled to start selling a commercially available hybrid poplar planting stock this month. Next, Nelson says, Forgene may develop Christmas trees.

Nelson says he is looking for an experienced chief operating officer and is talking to venture capitalists

about first-round financing of \$350,000 to \$750,000. Inducing quick-return-minded investors to plant their money in tree futures may not seem like a promising proposition, but Nelson stresses that the development time for products will be relatively short—on the order of 3–4 years. In fact, he says, it could be shorter than for a crop like corn, because new corn development faces a burden: new consumer-targeted varieties must look exactly like the old. There is more room for variance in forest trees.

George Kidd, advanced science consultant for L. William Teweles (Milwaukee, WI), estimates that it will still take Forgene 7–12 years to bring new tree varieties to market. Even though biotechnological methods will speed development of new strains, he says, Forgene will still have to grow up these strains to make sure that the improvements remain in mature trees. Nelson counters, however, that some traits can be measured accurately within the first year, so growing trees to maturity will not always be necessary.

—Arthur Klausner

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