

DESIGNING A HIGH-TECH ROOTED CUTTINGS RESEARCH FACILITY

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Abstract.--Many environmental factors are involved in the rooting of cuttings of the southern pines. Most environmental systems presently available operate such that cycles are either longer or shorter than required and rarely operate at optimum levels.

A computer automated system was designed to monitor and control cooling, heating, humidity and watering functions, all of which are top priority for rooting cuttings of the southern pines. Any of these parameters can be altered or modified through the computer, or manually controlled by override switches. The current environmental system design gives almost infinite possibilities for expanding and adding functions.

The computer is in constant two-way communication with sensors and will display the status of any area of the individual rooting benches. It also collects and logs environmental data, and accurately records all readings in each chamber, while continually monitoring for problems. This system has the capacity to keep track of and correlate all relative experimental data during the rooting period.

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