

As Part of a new irrigation control system, an IBM PC computer was installed at the LA office of Forestry, Columbia Nursery in 1984. Besides functioning as the **control and data recording unit for the irrigation system, the PC has been put to other uses.**

The integrated software program "Lotus 1-2-3" was received with the PC, but was upgraded to "Symphony" soon afterwards. The "Symphony" program has database, spreadsheet, wordprocessing, graphics and communication capabilities intergrated **into one program. "Symphony" has been used for most computer applications at the nursery.**

The nursery uses the PC to record and report hardwood seed collection data. As fire suppression units collect seed, a weekly report is made. The report shows district goals, amount collected, percent of goal for each district, and percent of **the total amount required. Use of the PC greatly reduced the time required and helped prevent errors.**

The nursery also has established an equipment maintenance file which requires only weekly input of accumulated hours or miles and maintenance performed during the week. A summary is printed for the nursery Superintendent, showing current miles/hours until the next scheduled maintenance. For each unit due maintenance, a checklist is printed, outlining the steps to perform. This checklist is given to maintenance personnel and returned to the nursery office after it has been accomplished. This application has proven reliable and effective in ensuring that routine preventive maintenance is performed on a timely basis.

Columbia Nursery stores the pine seed reserves for the Office of Forestry, and the **inventory of seed, sowing rate calculations and sowing data are now input into the computer.**

During the 1986 growing season, all fertilizer and chemical applications to the seedling crop were recorded on the computer. A standard form was devised and standard rates input.

<sup>1</sup> Louisiana Office of Forestry, Box 647, Columbia, Louisiana 71418

**The computer is also used for fiscal recording, tracking and analysis. All**

purchases are input from the invoice, a requisition form is printed and the data is automatically stores in the database. At the end of each month a budget summary is printed showing expenditures by category for the month. The summary also shows expenditures to date, percent of total spent and balance remaining in each category. This system has replaced the ledger previously maintained at the nursery.

As mentioned earlier, the PC controls the irrigation system. It is a powerline-control system with receivers and valves on each 84 lines. Each line is independently controlled, but the system has the capability to gang receivers together in groups for more simplified operation. Data is automatically recorded for usage and on request can be printed on a daily, weekly or monthly basis.

The receivers each have an analog to digital converters and are capable of returning information to the PC. Plans have been made to automatically record weather and soil data. Eventually the system may operate independent of schedules, and operation would be based on established parameters of temperature, wind speed, humidity and soil tension.

In the future the nursery anticipates using the PC for recording, and tracking approximately 300 seedling orders annually, managing lifting and shipping schedules and recording and analyzing soil amendment additions.