

- 12* **FIREPLAN: An Expert System for Prescribed Fire Planning on Prairies and Savannas (MN)**
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A computer-based expert system called FIREPLAN has been designed to aid land managers in the planning and execution of prescribed burns in tallgrass prairie and oak savanna vegetation. The land manager is asked questions about site, planning, and weather variables. Then, according to the answers given, conclusions are displayed that describe the fire objective (maintenance or restoration), fire regime needed, priority of the burn, contingencies, ignition pattern, effects desired, and the desired behavior of the fire. An index is also provided for determining a prescription. A small supplementary system, FUELMC, predicts fine fuel moisture on the basis of air temperature and relative humidity. The computer hardware required is an IBM PC or compatible, with at least 256K memory. The system is implemented using the expert system development tool LEVEL5 (formerly INSIGHT 2+), available from Level Five Research, Inc., 503 Fifth Ave., Indialantic, FL 32903. The FIREPLAN and FUELMC files to be used with LEVEL5 are available by contacting the authors (\$15.00 handling charge).

The system can provide answers to some problems encountered in prescribed fire planning, thus the user can avoid reading manuals or guides inappropriate for the specific burn situation. Since the knowledge base files (FIREPLAN and FUELMC) are written in English, not computer code, they can be easily modified or updated by the user. This expert system is designed to provide a general framework, so that each land manager can revise it to meet his or her needs.