

Technology Transfer

Two Computer-based Diagnostic Systems for Diseases, Insect Pests, and Physiological Disorders of Citrus and Selected Tropical Fruit Crops

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SUMMARY. The TFRUIT-Xpert and CIT-Xpert computer-based diagnostic programs can quickly assist commercial producers, extension agents, and homeowners in the diagnosis of diseases, insect pest problems and physiological disorders. The CIT-Xpert system focuses on citrus (*Citrus* spp.), whereas the TFRUIT-Xpert system focuses on avocado (*Persea americana* Mill.), carambola (*Averrhoa carambola* L.), lychee (*Litchi chinensis* Sonn.), mango (*Mangifera indica* L.), papaya (*Carica papaya* L.), and "Tahiti" lime (*Citrus latifolia* Tan.). The systems were

developed in cooperation with research and extension specialists with expertise in the area of diagnosing diseases, disorders, and pest problems of citrus and tropical fruit. The systems' methodology reproduces the diagnostic reasoning process of these experts. Reviews of extension and research literature and 35-mm color slide images were completed to obtain representative information and slide images illustrative of diseases, disorders, and pest problems specific to Florida. The diagnostic programs operate under Microsoft-Windows. Full-screen color images are linked to symptoms (87 for CIT-Xpert and 167 for TFRUIT-Xpert) of diseases, disorders, and insect pest problems of citrus and tropical fruit, respectively. Users can also refer to summary documents and retrieve management information from the Univ. of Florida's Institute of Food and Agricultural Sciences extension publications through hypertext links. The programs are available separately on CD-ROM and each contains over 150 digital color images of symptoms.

Expert systems have been developed from a branch of computer science known as artificial intelligence (Liebowitz, 1988). Artificial intelligence is primarily concerned with knowledge representation, problem solving, learning, robotics, and the development of computers that can speak and understand humanlike languages (Townsend, 1987). An expert system is a computer program that uses knowledge to solve problems that are difficult enough to require significant human expertise (Townsend, 1987). Simply stated, expert systems are computer programs designed to mimic the thought and reasoning processes of a human expert.

Expert systems can be developed for many kinds of applications involving diagnosis, prediction, consultation, information retrieval, control, planning, interpretation, and instruction (Edmonds, 1988; Liebowitz and DeSalvo, 1989; Peart, 1989). They are used in applications where the procedures or algorithms for the problem do not exist or are poorly defined, but good rules of thumb or heuristics are available. Although the use of expert systems in horticulture is still limited and their primary function is as a tool for human experts, expert systems are rapidly being accepted for use by the nonexpert to solve problems when human expertise is expensive, untimely, or unavailable. Today, better development tools are available as closer interdisciplinary cooperation is resulting in agricultural researchers' gaining more insight into the theory and concepts necessary to build effective systems (Crassweller et al., 1993; Holt, 1989).

Several notable expert systems have been developed for use in horticulture. For example, CALEX is an expert system that was developed for the diagnosis of peach and nectarine plant problems by the Univ. of California (Plant et al., 1989). Like most experts systems, CALEX is a rule-based system and uses certainty factors, so that the knowledge base consists of production rules in the form of IF-THEN statements. The inference engine pieces together chains of rules in an attempt to reach a conclusion. The knowledge base of the CALEX diagnostic system contains about 600 rules for the diagnosis of 120 problems of peaches and nectarines, representing most of the production problems in California (Plant et al., 1989). CITPATH, a computerized diagnostic key and information system, was developed to identify five major fungal diseases of citrus foliage and fruit

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Computer Based Diagnostic Systems Eta Berner,1998-07-01 **Clinical Decision Support Systems** Eta S. Berner,2013-06-29 Written by nationally and internationally recognised experts on the design evaluation and application of such systems this book examines the impact of practitioner and patient use of computer based diagnostic tools It serves simultaneously as a resource book on diagnostic systems for informatics specialists a textbook for teachers or students in health or medical informatics training programs and as a comprehensive introduction for clinicians with or without expertise in the applications of computers in medicine who are interested in learning about current developments in computer based diagnostic systems Designed for a broad range of clinicians in need of decision support

Nuclear Powerplant Safety Systems United States. Congress. House. Committee on Science and Technology. Subcommittee on Energy Research and Production,1979

Cumulated Index Medicus ,1994 **Hazards XV** Institution of Chemical Engineers (Great Britain). North Western Branch,2000 Experts from the fields of process safety and environmental protection discuss their work

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Introducing Artificial Intelligence Geoffrey Leslie Simons,1984 Industrial Process Control Systems L. Boullart,E. van

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