# COOPSIM: A DECISION SUPPORT SYSTEM FOR COOPERATIVES

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The task of managing today's agricultural cooperative is challenging. Effective managers must constantly examine financial performance relative to expectations in order to identify potential threats and opportunities.

Decision support systems[1] are computer-based information systems designed to assist managers in making decisions regarding marketing, finance, personnel, etc. on an on-going basis. CoopSim is a decision support system developed specifically for agricultural cooperatives.

The purpose of this current report is to answer a series of questions designed to introduce the reader to CoopSim. Specific attention is given to highlighting potential uses which may be of interest to cooperatives in Oklahoma.

## What does CoopSim stand for?

CoopSim is an abbreviation for cooperative simulator. The intent of CoopSim is to assist managers in simulating future performance based on historical results and expectations concerning the future environment.

## What is CoopSim?

CoopSim is a microcomputer-based decision support system developed to assist cooperative managers in decision making activities. CoopSim provides this assistance by:

[1] See "Decision Support Systems in Agribusiness Firms, OSU Extension Facts No. 201, March 1988 for additional information on decision support systems.

1. providing managers with greater access to financial data for inspection, analysis, and forecasting;

2. permitting a high degree of flexibility in developing a decision support system which reflects the decision making style and data needs of individual managers;

3. creating an environment which can be expanded to provide additional capabilities to meet growing and/or changing management information needs; and

4. presenting information and analysis in both tabular and graphical formats to facilitate analysis and communication.

## What are CoopSim's primary objectives?

The primary objectives of CoopSim are to assist managers in developing financial forecasts and examining financial performance. The program assists users to: examine a variety of financial statements in tabular or graphical formats; develop financial forecasts based on historical patterns or expectations; and explore alternative corporate strategies regarding reorganization, merger, acquisition, and/or liquidation.

## How was CoopSim developed?

The CoopSim project was initiated in 1986 with funding from Oklahoma State University and the Agricultural Cooperative Service, U.S. Dept. of Agriculture. Cooperative managers in Oklahoma provided suggestions and comments on prototypes which were designed and evaluated during 1986 through 1988. The results of these efforts are reflected in the design of CoopSim which was released in 1989.

## What types of decisions are supported by CoopSim?

CoopSim is designed to support operational and strategic decisions. Operational decisions pertain to month-to-month questions regarding production, merchandising, commodity trading activities, etc. Strategic decisions, in contrast, focus on long-term issues associated with financial structure and an assessment of strategic opportunities and threats.

## What microcomputer hardware is required to use CoopSim?

To fully benefit from the capabilities offered by CoopSim, the following system configuration is recommended:

* IBM PC/AT[2] or compatible (80286 based) -- CoopSim will run on PC-based equipment but execution speed may be disappointing. (CoopSim also runs on IBM PS/2 equipment.)
* 512K of memory (640K preferred)
* 20MB hard disk drive (optional)
* Math coprocessor (optional)
* DOS 3.0 or higher -- CoopSim may run under earlier versions as well.
* EGA color display adapter (optional)
* Enhanced color display (optional)

## How much microcomputer experience is needed to use CoopSim?

CoopSim does not require an extensive knowledge of microcomputers. User and error messages are provided to explain actions of the software. A basic understanding of the operating system is useful in loading and saving files.

## Is any other software needed to use CoopSim?

Since the needs of agricultural cooperatives often vary by business activities and managerial style, CoopSim can be customized to meet specific needs. Lotus 1-2-3[3] Release 2 is used to develop customized applications which have user-specified menus, report and analysis screens, and historical/forecasting relationships.

CoopSim uses the Lotus 1-2-3 file structure to store application-specific information. In other words, if a

manager desires, a CoopSim application can be developed to meet specific decision requirements using Lotus 1-2-3. Lotus 1-2-3 is not required if you intend to use only those applications provided with the CoopSim software or developed by others.

## What assistance is available to CoopSim users?

CoopSim users are assisted in using the software in a number of ways, including user and error messages, on-line help, a user's manual, a tutorial, training programs, and firm-level assisance.

**User and error messages.** The program provides user and error messages to assist users in performing a variety of tasks and avoiding potential errors.

**On-line help.** An on-line help facility is available which summarizes the use of function keys.

**User's manual.** CoopSim is accompanied by a detailed user's manual which describes basic functions and technical characteristics. Appendices contain additional information on the program and educational materials on principles of financial analysis and forecasting.

**Tutorial.** A computerized tutorial is provided which contains an overview of CoopSim, instructions on the design of customized CoopSim applications, and an illustration of a sample CoopSim session.

**Training programs.** Training programs on the use of CoopSim in evaluating financial performance and developing financial projections are available to individual cooperatives and cooperative groups upon request. Such programs also provide training on the development of CoopSim applications which are customized to the specific needs of individual cooperatives.

**Firm-level assistance.** To the extent that resources allow, some assistance from the authors is available to individual cooperatives interested in using CoopSim in decision making activities.

## How do I obtain a copy of CoopSim?

The introductory price for CoopSim is $100 which includes the program, tutorial, sample applications, and user's manual. To obtain a copy of CoopSim, contact the authors at:

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[2] IBM PC, PC/AT, and PS/2 are trademarks of IBM Corporation.

[3] Lotus 1-2-3 is a trademark of Lotus Development Corporation.