Farm Management

Aided by Computers

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During 1967, about 40 farmers and ranchers from Arizona, California, Oregon, Nevada, Montana, New Mexico, North Dakota, and Iowa had their records processed on a computer farm records program developed by the Agricultural Extension Service at The University of Arizona. Probably 100 more farmers were using this system over the United States since several firms have purchased the program from The University of Arizona.

Those using it received accumulated cost of production each month per head of livestock by pen, per acre, by each field, or per hundredweight of production, if they desired. They had these costs broken down by detail such as plowing for crops, milking on a dairy, and feed for a commercial feed lot if desired.

In addition, their financial statement and income statement was updated showing all changes in each account for the month. They also received a monthly labor summary to transfer to social security reports.

At the end of the eleventh month of their fiscal year, they received an income tax summary so they could estimate their income tax liability before it was due. Thus, they had a full month to manage their taxable income by buying and selling. At the end of the twelfth month, the income tax summary was prepared by the computer on a tax work sheet so their accountant could spend his time

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determining what alternatives would minimize taxes.

Farmers and ranchers used carbon copies of checks to code their transactions. These were identified either with alphabetic description or numerical code for type of cost, as they wished.

In January of 1968, an improved version of this program, for a larger computer than the one previously used, will be available. These records are much more flexible than the 1967 record. In 1968 the farmer is able to set up whatever accounts, unique to his farm, that are needed.

If the farmer wishes to have costs to-date compared to budgeted costs by each crop and livestock enterprise, such a monthly report will be prepared by the computer. A cash flow statement and budget comparison likewise will be prepared. Hours of machine usage by each machine can be printed. Pounds of feed per pound of gain or per dozen eggs will be on another special monthly report if desired.

Twelve banks and firms made it possible to rewrite and improve the records for 1968. For this contribution they received the program for their use in 1968. These banks and firms range from California to Massachusetts and will use the program to service both farmers and agri-business. One of the banks is expecting to serve 100,000 of their present 500,000 customers on the program by 1972.

The decision by these firms to use the system developed by The University of Arizona Extension Service came after research on all the 44 computer farm record systems presently available in the United States. It was chosen because of its use of standard double entry accounting principles with simplicity of coding by the farmer. The farmer, for instance, can use either alphabetic or numeric coding. He does not have to understand debits and credits to use the system even though he gets the double entry financial accounting, since the computer can take care of this internally.

The record is designed for farm management and agri-business decision making, credit management, and income tax management and reporting. The record also provides information necessary for further computerized decision-making programs; for instance, the information needed by the computer to tell a farmer how many acres of each crop and how many head of each type of livestock based on his cost of production, capital labor, and land restrictions will come from these records. This computerized linear program is already available but needs proper records to give accurate answers.

Another program being computerized is one that will also take such detailed farm records data and tell a farmer when to buy and how much can be paid for capital investments such as machinery, feed lots, whether to buy or rent the land, etc.

Using the farm records program for management as well as using these decision-making programs requires training of the farmer or his servicing party such as his bank, accountant, etc. Therefore, if any Arizona farmer or farm service party wishes more information and possible training, see your county Extension agricultural agent. Some training workshops can be set up so that Arizona farmers and agri-business firms can take advantage of the latest management technology developed at The University of Arizona.