RECORD-KEEPING SYSTEMS FOR BEEF SAFETY AND FEEDLOT HEALTH

C. D. Cranwell and D. D. Simms

Summary

Three hundred nine feedlots were mailed questionnaires to ascertain the types of record-keeping systems currently being used to monitor health programs and FDA-specified treatment withdrawal times. Microcomputer systems were of special interest. Approximately one third of the feedlots responded. A majority with a one-time feeding capacity of more than 10,000 head were using a microcomputer record-keeping system, whereas most of those with fewer than 10,000 head used a manual, paper-based system. Those feedlots using computerized record-keeping systems had purchased their software package from one of five companies. Managers felt these software packages were adequate for billing customers, monitoring pharmaceutical inventory and withdrawal period, and aiding treatment diagnosis. Proper monitoring of animal inventory was indicated by some feedlots as a limitation of their particular software. Almost all feedlots using computer record-keeping systems indicated that fewer than five employees operate the system on a regular basis. Among feedlots using computerized systems, the scope of the particular software in use met the yards' perceived needs. Approximately 23% of responding feedlots regularly used blood or urine tests to verify proper drug withdrawal and clearance prior to shipping previously treated cattle.

(Key Words: Drug Withdrawal, Record Keeping, Microcomputer.)

Introduction

Meat safety is an increasingly important issue in the beef cattle industry. One important aspect of this issue is ensuring that beef is free from drug residues. This is partially a function of adhering to drug withdrawal periods specified by the FDA. Complying with these withdrawal periods requires good records of processing and health treatments. Traditionally, these record-keeping systems have been paper-based (manual card file). However, in the past few years, microcomputer-based systems have gained wide acceptance. Our goals were to assess the perceived adequacy of the systems, both paper-based and microcomputer-based, and to identify specific problems limiting the adequacy of these systems.

Experimental Procedures

The initial phase of this project included visits with feedlot managers and software vendors to identify the various systems in use. Feedlots varying in size were selected for personal visits to determine if certain types of systems were better suited to feedlots of specific sizes. Information from these initial visits was used to develop a questionnaire and solicit input from feedlots using microcomputer record-keeping systems. The questionnaire consisted of 10 questions related to software adequacy for monitoring drug withdrawals and general health record keeping. It was sent to 55 feedlots with computerized systems in Kansas and Nebraska. Another questionnaire was developed for feedlots using paper-based systems. One questionnaire of each type was sent to 254 Kansas feedyards. The feedlot mangers were asked to complete the one most

relevant to their operation. A breakdown of feedlot responses is presented in Table 1.

Results and Discussion

Microcomputer-Based Systems

Fifty-nine feedlots responding to the surveys were using computerized record-keeping systems. A breakdown of the one-time feeding capacity of these yards is presented in Table 2. Of feedlots indicating their capacity, 32% were more than 20,000 head, and 25% were fewer than 10,000 head. Fifty-six percent had been using their computer system for more than 1 year. Approximately 10% of those respondents used software customized for their feedlot. The others used an "off the shelf" package sold by one of five companies. Regardless of source, all programs were able to monitor pharmaceutical and animal inventories and provide aid in treatment diagnosis. Eighty-nine percent of the respondents indicated that their program provided adequate printouts for use in billing customers for health costs. Twenty-four percent of the feedlots backed up their record-keeping system by using blood or urine tests to verify proper drug withdrawal prior to shipping.

Cost of the system was the most frequently indicated disadvantage. Many yards reported that time involved in using the system was a disadvantage of microcomputerized system, despite the fact that 85% of respondents found that their microcomputer system required fewer manhours than the previous system. A few feedlots thought the program output was too long and could be condensed. Several respondents indicated that animal inventory control was a problem, because records had to be adjusted by the person treating the cattle. Feedlots pointing out this problem would have preferred inventory to be monitored in the office. Despite this shortcoming, very few respondents indicated any kind of problem closing out a pen.

Our feedlot visits and phone calls indicated that feedlot employees were very receptive to using microcomputers. This is also evidenced by the rapid transition time to these computerized systems. Almost all feedlots indicated transition can take place effectively in less than 3 months. Many managers indicated that conversion was complete in a matter of days. This transition possibly was aided by the limited number of employees operating the system on a regular basis. Even considering the range in feedlot capacity among yards using these systems, 75% indicated that fewer than five employees used the system regularly.

Paper-Based Record-Keeping Systems

From the general survey, 56 respondents indicated using a manual, paper-based system for keeping health records. A breakdown of the one-time feeding capacity of these yards is presented in Table 2. Of feedlots indicating their capacity, 36% were over 10,000 head, and 44% were less than 5,000 cattle.

All feedlots using a manual system indicated that monitoring animal and pharmaceutical inventories was easily handled by their system. A majority of feedlots satisfied with their present system also indicated that good communications existed between employees treating cattle and those responsible for monitoring withdrawal periods and customer billing. Ninety percent of feedlots using a manual system felt even though their pharmaceutical inventory included a variety of products, monitoring withdrawal times and pharmaceutical inventory presented no problems. Twenty-two percent of respondents using manual systems used a blood or urine test prior to shipment in order to confirm drug clearance in treated cattle.

Thirty-eight percent of feedlots responding indicated that inaccurate or incomplete treatment records were a concern. Interestingly, virtually the same proportion (36%) of yards was considering switching to a microcomputer system. However, 69% of these feedlots also viewed their manual record-keeping system as labor intensive.

Overall, all of the feedlots responding to our survey were confident in the functionality of their current record-keeping systems; however, residue prevention clearly was a high priority. The commercial cattle feeding business is a vital check in protecting the wholesomeness of beef. Consumer acceptance and confidence in beef is critical. Thus, beef safety is everybody's business.

Table 1. Number of Feedlots Responding to Health Record-keeping Surveys

		Number of Responses	
Survey Type	Number of Questionnaires Mailed	Microcomputer	Paper-Based
Microcomputer	55	42	NA
General	254	17	56
Total	309	59	56

Table 2. Capacity of Feedlots Using Microcomputer and Manual, Paper-Based, Record-keeping Systems

	Type of Record-Keeping System	
Feedlot Capacity[a]	Microcomputer	Paper-Based
Less than 5,000	6	20
5,000 to 9,999	7	9
10,000 to 14,999	11	7
15,000 to 19,999	12	5
20,000 or more	17	4
Total[b]	53	45

[a]One-time feeding capacity.
[b]Some yards responding to the survey did not indicate capacity.