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HOW READERS PERCEIVE AND USE
A COMPANY-SPONSORED MAGAZINE:
A READERSHIP RESEARCH MODEL

By

STEPHEN H. SIMONS

A thesis submitted
in partial fulfillment of the requirements for
the degree Master of Science
Major in Journalism
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1989
HOW READERS PERCEIVE AND USE
A COMPANY-SPONSORED MAGAZINE:
A READERSHIP RESEARCH MODEL

This thesis is approved as a creditable and independent investigation by a candidate for the degree, Master of Science, and is acceptable for meeting the thesis requirements for this degree. Acceptance of this thesis does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Dr. Roger Van Ommeren
Thesis Advisor

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CHAPTER I

INTRODUCTION

In the case of the specialized magazine, sending the intended message to a specified audience is not difficult. Today, the availability of mailing lists based on almost every demographic category and countless means of packaging messages make placing a specific message in the hands of a specified audience easy.

What is difficult is determining magazine effectiveness in terms of reader habits, needs, preferences and who exactly is reading. The magazine may be received by members of the audience, but is that audience reading and receiving the message(s)?

The use of company-sponsored magazines has increased as target audiences have grown smaller, as is the case in agriculture, according to Susan Winsor, Marketing Publications Manager of Cenex/Land O' Lakes.¹

Cooperative Partners, a company-sponsored magazine published by Cenex/Land O' Lakes, has an annual budget of approximately $1.5 million and a circulation of approximately 300,000 cooperative patron farmers. Winsor added that high media costs and a small target audience make direct contact through a company-sponsored publication a cost-effective means of communication.²
Many companies are finding that specialized or company-sponsored magazines fit their communication strategies. The external magazine is one of the most effective billboards for keeping a company's name before a specifically targeted audience, according to B. J. Altschul. 3

As Altschul, the author of "How to Market and Monitor Your External Publication," explained,

... A publication that reaches the selected audience on a fixed, regular schedule offers a vehicle for reinforcing the organization's 'unique selling points' to exactly those decision-makers who purchase your product or service. 4

The company publication can also play an important role in creating a favorable company image. After providing information, the company magazine promotes loyalty while establishing a record for honesty that readers can trust. 5

Published research on the use and effectiveness of specialized magazines is minimal. This lack of research is shown by research reported in *Journalism Quarterly*. 6 In the 20-year period from 1964 through 1983 only 6 percent of the 1,917 articles published in *Journalism Quarterly* were magazine research articles. Of the 116 magazine research articles published, only 5 percent, or six articles, were readership studies. 7
Gerlach summarized that "nearly three quarters of this (magazine) research focused on mass periodicals while special periodicals were clearly underrepresented."\(^8\)

The problem faced by the publisher of a company-sponsored magazine is evaluating the effectiveness of the publication. As Altschul stated,

> Feedback is the only way to determine if your messages have been received, understood, and used as intended. You need to have a yardstick to measure if your publication is on target, if you're publishing the right information for the right reasons, if you're meeting the reader's needs.\(^9\)

The objective of this thesis is to create an in-house readership instrument to be used by publishers of company-sponsored magazines. The model will then be tested on a company-sponsored magazine.

The study will seek to answer the questions, "Who are the readers," "What do they read," and "How do readers rate editorial content of the magazine?"

To answer these questions, the descriptive method of surveying will be utilized. Paul L. Leedy, in *Practical Research*, describes this as the method in which:

> The researcher does two things: first, he observes with close scrutiny the population which is bounded by the research parameters; second, he makes a careful record of what he observes so that when the aggregate record is made, the researcher can then turn to the record to study the observations that have been 'described' there.\(^{10}\)
For the publisher of an external company-sponsored magazine it is important to periodically assess the publication's effectiveness as a communications tool. The editor needs to identify the readers' preferences and needs to reassess the editorial focus of the magazine. This includes demographic information on the target audience.

A readership survey can provide this information in a cost-effective manner.

This thesis attempts to present a model for an in-house readership survey for a company-sponsored magazine. The following survey was developed for one company-sponsored magazine, the GTA Feeds Dairy Update magazine.

This 16-page company-sponsored magazine is issued four times each year to 9,039 GTA Feeds' customers and prospective customers. No readership research has been conducted on the magazine in its eight years of existence. The Dairy Update, therefore, is an example of a magazine that needs to assess its effectiveness as a communications tool.

This study is important, not only to GTA Feeds, but to other marketing firms that face stiff competition for their products and services among a shrinking audience, such as purchasers of livestock feed products.
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This study is important, not only to GTA Feeds, but to other marketing firms that face stiff competition for their products and services among a shrinking audience, such as purchasers of livestock feed products.
The company-sponsored magazine represents the company. Each communication with the audience is expensive to the sender in terms of company image and dollars. More importantly, the communication is subject to interpretation by the receiver. Readership research defines and identifies how the receiver perceives that communication.

An article in the Small Business Report points out that testing "reader response to determine if readers read the publication or ignore it, believe it or not" is important. The article concludes: "Never treat readers like a captive audience. Even a captive audience won't read a publication that is not on target." 11

The readership and demographic data collected with this model can be used by the publisher or editor of a magazine to guide its future content and editorial direction. The research design will lend itself to use on other company-sponsored readership research projects. This project, however, will limit itself to readership research on the GTA Feeds Dairy Update magazine.

The remainder of this thesis will be organized in the following manner:

Chapter II will discuss the importance of readership research in producing an effective company-
sponsored publication. The chapter discusses several studies acquired after contacting magazine publishers and organizations conducting readership research. Acquiring the studies was a problem because of the proprietary nature of readership research.

Chapter III contains the methodology. In this section the problem is stated, sampling method outlined, and procedures for carrying out the methodology are described in detail.

Chapter IV analyzes the response rate, results, and cost of the survey.

Chapter V summarizes the study and is followed by the appendix. The appendix contains all the information needed to conduct a similar readership research project.

In summary, the major purpose of this thesis is to create a readership research model for magazines that cannot afford the services of an outside research firm but want statistically significant and credible readership data.
ENDNOTES


2. Ibid.


4. Ibid., p. 36.


7. Ibid., p. 178.

8. Ibid., p. 182.


CHAPTER II

REVIEW OF LITERATURE

The Importance of Magazine Readership

Hundreds of the nation's most successful companies these days spend millions of dollars to publish their own magazines. These companies use the magazines to deliver a specific message to a specific audience with impact and efficiency.

Raymond Roel, in a 1988 Direct Marketing magazine article, stated that competition for readership has grown as "the number of magazines in the United States has risen from 6,960 in 1950 to 11,593 in 1987."¹ This competition for reader attention gives a company-sponsored magazine that "benefits the buyer (reader) by informing, enhancing status, saving money, or making life easier" the ability to break through the communications clutter.²

This competitive situation makes company-sponsored magazines a sound investment, according to Nicolas Glover, chief executive officer of a Knoxville, Tennessee-based publishing company. He explained,

The explosion of communications vehicles has made the consumer less receptive to untargeted messages. . . . Custom magazines break through the boredom barrier because they address a specific consumer interest or need and reach consumers when their
interest in its message is at its peak, via a reliable source.

While these magazines are breaking through the clutter, they are also acting as another member of the sponsoring company's sales team. The goal is to sell, and to do so with such subtlety that the reader is unaware of being sold.

As was discussed in the introduction, readership research data on specialized magazines produced through academic channels is limited. "Research about magazines appears relatively infrequently in Journalism Quarterly and other publications in the field of journalism and mass communications," according to author Peter Gerlach.

In Gerlach's study, one respondent to his survey stated that commercial research was better than academic research. Another wrote that "much has been done by magazine publishers, but little by academics, partly because few universities teach magazine research."

In a 1988 Journalism Quarterly article, author Thomas Jacobsen stated that "few reports on magazine research practices have been published." He explained,

Quantitative research plays an important role in magazine publishing, yet information about research practices is largely diffused throughout the industry, possessed by individual research directors of publishing companies and trade associations. Attempts to contribute in this important area of publishing, whether by professionally or
academically based researchers, are made difficult because of this.

Today, publishers interested in readership research on their publications have the choice of relying on a professional organization such as Readex, Inc., Doane Marketing Research, Inc., Starch INRA Hooper, Inc., or Simmons Market Research Bureau, Inc.

These organizations offer a wide variety of sophisticated advertising and readership survey capabilities, along with the ability to customize research to specific publisher needs.

However, for the smaller organization publishing a company-sponsored magazine, these research firms are a costly alternative. The ability to produce credible, informative and valid readership information internally is a less expensive alternative. Unfortunately, as research for this study will show, the alternative chosen most often is for no readership research or elementary attempts to acquire readership data.

Readership research, whether for newspaper, newsletter, advertising or magazine, serves an important purpose. As Altschul stated, "Feedback is the only way to determine if your messages have been received, understood, and used as intended." Readership research provides this feedback.
Magazine Research Studies Used as Background

A great majority of the readership studies done for company-sponsored magazines are not available and are considered proprietary. Competition is the main reason.

Simply put, if research shows a publisher of a specific company-sponsored magazine that his magazine is very effective, why would he want to share his success with a competitor?

A review of the Communications Abstracts and Journalism Abstracts for this study indicated that scholarly magazine readership research was presented most often on university-produced publications and government- or state-sponsored publications.

Published studies on newspaper readership most closely resemble the readership project undertaken in this thesis. Robert L. Jones and Leslie A. Beldo, in a 1953 Journalism Quarterly article, pointed to the popularity of newspaper readership research. They stated,

The newspaper readership survey is one of the most frequently-used and well-established of the quantitative research techniques in mass communications study.

While many variables influence newspaper readership, a 1988 Newspaper Research Journal article
stated, "most research on newspaper readership has dealt with two questions: Who reads a newspaper? Why does he/she read it?" The study, titled "Predicting Newspaper Readership from Content Characteristics: A Replication," found that article location is consistently the best predictor of readership.

Another study by Janeann Porter titled "Readership of the Iowa Falls Citizen - A comparison of two methods," compared the clipped and whole copy survey methods of measuring readership.

These studies, along with other newspaper readership studies reviewed during the research stage of this thesis, provided useful background information. The lack of published magazine readership studies may be explained by the comments of Roger D. Wimmer and Joseph R. Dominick in the following two paragraphs.

The fact that academic research is public and generally has a theoretical or scholarly approach may account for the limited appearance of magazine readership studies in scholarly journals.

Private sector research, on the other hand, is generally applied, or practical, research to be used in decision-making and considered the sole property of the research sponsor.

For this study, twenty-five publishers of company-sponsored magazines were sent letters requesting...
information on publication readership research studies. The information received, along with information found through library research, formed the basis of the methodology of this study.


Contact with the professional research firms mentioned earlier in this chapter provided insight into readership research. However, no specific instruments or results were supplied to the author.

Nineteen of the companies sponsoring magazines responded to the request for information. Of these, eight supplied copies of the instrument used for the research and three provided data collected from the research.

The typical response was similar to that presented by Mark Plenke of The Webb Company. It read:
You may be aware by now that most readership information on company-sponsored magazines is pretty closely held because it relates to company marketing strategy. . . . I think most companies publishing their own magazines would view the information you want as proprietary and too sensitive to be available outside the company.

In many cases, the readership research or instruments provided were primitive, in-house productions. A large number of the instruments returned under the label of readership research were actually questionnaires soliciting only reader demographic information.

The varying nature of readership research is demonstrated by the following four examples.

The first example of a readership research survey appeared in the January 1988 issue of Cenex/Land O' Lakes Cooperative Partners. This 32-page magazine is published eight times each year for 300,000 readers at an annual cost of approximately $1.5 million.17

Each magazine contained a postcard to be returned to Land O' Lakes that asked five questions. They were: (1) Do you like Cooperative Partners? (2) What do you like most about Cooperative Partners? (3) What do you least like about Cooperative Partners? (4) What kind of stories would you like to see more of in this publication? and (5) Would you like to continue receiving Cooperative Partners?18
While this type of readership research provides information on readership, its methodology is flawed. The flaw is failure to follow the two basic rules of survey sampling, as outlined by Paul L. Erdos in *Professional Mail Surveys*. Those rules are: (1) Some acceptable procedures should be used in the selection; and (2) every unit of the universe should have a known chance to be selected. Data collected from this survey was also unavailable outside the company.

The second example is the *Farm Forum*, a 32-page magazine that Case IH distributes to 475,000 readers on a quarterly basis. The only measure of readership available to the publishers are letters from readers and returned clip-out coupons for further product or service information.

*Farm Forum* receives about 100 coupon responses per issue and about 100 reader letters asking for more information. *Farm Forum* managing editor Jacki Tucker added that the publication does not plan to conduct a readership survey.

The final two examples taken from information gathered for this study are more complete readership studies conducted on the *Harvest States Journal* and *Feedstuffs*. 
In the Harvest States Journal survey, conducted in 1984, a cover letter and four-page questionnaire was mailed to 1,071 readers. The sample receiving the survey was randomly selected from the publication's 90,000 reader circulation list.

A response rate of 19 percent was achieved. This can probably be attributed to failure to enclose a postage-paid return envelope. On the other hand, those returning questionnaires received a premium incentive, either a belt buckle or cap.

The 26-question survey produced information on:
(1) reading habits in terms of what read, when read, and how long read, (2) reader demographics, (3) reader likes and dislikes concerning the Journal, (4) reader evaluation of usefulness of specific sections of the Journal, and (5) and reader rating of Journal qualities such as appearance, readability, and interest.

In summarizing the results of the research, Vince Becker, then publications manager at Harvest States Cooperatives, stated:

In general, readers have a very favorable impression of Harvest States Journal. They like its content, appearance and frequency. They regard it as a valuable source of agricultural and Harvest States Cooperative information. They would not like to be without the magazine.
Becker added that the specific information gathered in the survey is essential to producing editorial content that fits the needs and interests of Journal readers.27

The Feedstuffs readership research, conducted by Miller Publication Research, was conducted on the February 8, 1988 issue. A random sample of 350 readers of the 40-page publication received a cover letter, a four-page questionnaire, postage-paid return envelope and one dollar. A postcard follow-up was mailed to non-respondents.28 The survey achieved a response rate of 65.1 percent.29

The questionnaire contained 18 questions on demographics and reader habits. A separate section asked respondents to rate articles and advertisements in the February 8, 1988 issue on a scale containing "Looked At," "Read Half Or Less," "Read More Than Half," and "Didn't See/Read."30

The research found that Feedstuffs is well received. Fifty-six percent of respondents "read all, or nearly all" of each issue. As a source of agribusiness information, 90.8 percent of readers rated the publication either very valuable or quite valuable.31

The literature review for this thesis uncovered numerous research projects relevant to readership
Two studies closely resembling this thesis provided insight into the study of readership.

The first was a 1980 study by Eleanor Singer and Marc B. Glassman published in *Public Opinion Quarterly*. The article, titled "Report on the POQ Readership Survey," was conducted "to survey its (POQ) readers to learn something about their characteristics and what they liked or disliked about the journal, in order to provide some guidance for future editorial policy."

The study focused on the Winter 1978 issue and 71.4 percent of the 644 subscribers sampled responded. In evaluating the journal, readers indicated for each article whether they had "read the entire article," "started but lost interest," "wanted to read it," or "did not want to read it." Respondents read or intended to read an average of 4.72 articles.

In conclusion, Singer and Glassman found that readers were moderately satisfied, but would welcome change.

The second study, reported in *Industrial Marketing Management* by Harrie Vredenburg and Cornelia Droge, asked respondents to answer survey research questions related to a company publication. The survey achieved a 30.9 percent response rate from the 1,000
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firms sampled randomly from the publication's mailing list. 37

This survey tested awareness of the publication, its interest value, usefulness of the publication, and how much of the magazine was actually read. 38

Respondents found the publication interesting and all but a few expressed an interest in continuing to receive the publication. The most popular articles, as rated by respondents were articles about new products or services sold by the sponsoring company and "How to" articles. 39

The limitations of this study are similar to those of the model created in this thesis. As Vredenburg and Droge stated,

Only one company publication in one industry was studied. This imposes a constraint on generalizability or external validity of the results. Although one could fairly safely generalize to the telecommunications industry, one would need to be careful in generalizing beyond that industry. 40

Research collected on magazines is important, according to Jim Reick, research director at Miller Publication Research. In the case of Feedstuffs, the information helps editors to evaluate content, readership, and plan for the future. 41 Reick added that the research data collected is well worth the approximately $1,200 spent annually on the study. 42
These studies illustrate the spectrum of readership research conducted by publishers. The studies, along with research for this thesis, bring to the surface three important points.

First, properly conducted readership research provides valuable information to the publisher and editor of a company-sponsored magazine.

Second, the data available on company-sponsored magazine research is limited due to competition and its proprietary nature.

Third, there is a void that a well constructed, cost-effective, and methodologically correct readership instrument can fill.

Creating a readership instrument for a company-sponsored magazine is the objective of this study.

The review of related literature and readership survey information collected by the author was used in addressing methodological issues. Journal articles and books provided guidance in the areas of questionnaire construction, sample design, mailing procedures, and premium incentive use. These articles will be cited in the methodology of this thesis.

In summary, publishing of company-sponsored magazines is a competitive business. Readership data helps to guide publishers and editors of company-
sponsored magazines as they attempt to reach and influence their specified audiences.

This study will attempt to create an instrument that can be adapted to the company-sponsored magazine in need of readership research. It will also provide GTA Feeds with readership information on its Dairy Update magazine.
ENDNOTES


6 Ibid., p. 181.


8 Ibid., p. 511.


12 Ibid., p. 29.


15. Ibid., p. 13.


18. "We want to hear from you," Cooperative Partners (January 1988).


20. Ibid., p. 32.


22. Ibid.


25. Ibid., p. 2-14.


27. Ibid., p. 1.


29. Ibid., p. 1.

30. Ibid., p. 4-8.

31. Ibid., p. 9-10.

33 Ibid., p. 129.

34 Ibid., p. 129.

35 Ibid., p. 130.

36 Ibid., p. 133.


38 Ibid., p. 175-76.

39 Ibid., p. 177.

40 Ibid., p. 177.

41 Telephone interview with Jim Reick, Research Director, Miller Publishing Company, Minneapolis, Minnesota, August 18, 1988.

42 Ibid.
CHAPTER III

METHODOLOGY

This chapter discusses how the methodology was developed for a model readership study for a company-sponsored magazine.

As stated in Chapter I, this study will develop a workable model that the editor of a company-sponsored publication can use to test readership of his or her magazine. The effectiveness of this method of readership research will be tested on the GTA Feeds Dairy Update magazine, a company-sponsored magazine.

Statement of the Problem

This study is an attempt to use the descriptive method of analysis to answer the following research questions:

(1) Who are the readers?
(2) What do readers read?
(3) How do readers rate editorial content of the magazine?

This study is designed to measure readership. Readership, for the purpose of this survey, is defined as what magazine recipients read, how much they read and when they read the magazine.
Study Procedures

The criteria for this readership survey included an inexpensive, reliable method that could be easily analyzed and completed within a six-week time period.

The first step in developing the methodology was selecting a survey technique. The publisher and author chose the mail survey rather than the telephone survey or personal interview. According to Roger D. Wimmer and Joseph R. Dominick, authors of *Mass Media Research*, this method is effective because of its relatively low cost, efficiency of use over wide geographic areas, and speed.¹

The personal interview was eliminated as a survey technique because its cost in transportation and labor make it the most expensive method of data collection.²

The telephone survey, which offers the distinct advantages of reasonable cost, low non-response rate, call-back capabilities, and speed, was also eliminated.³ Wimmer and Dominick stated that telephone surveys are generally more expensive than mail surveys and involve training and supervision of interviewers.⁴

The major reason for the elimination of these two methods was the fact that recipients of the magazine to be studied are located in an 11-state area.
Despite the disadvantage of possible low response rate associated with the mail questionnaire, David P. Labrecque stated that it "remains a valuable tool for research due largely to its success in collecting large amounts of information from widely dispersed respondents at relatively low costs."^5

The second step in developing the methodology was selecting the sampling technique for the study. Sampling, according to Fred N. Kerlinger, is taking any portion of a population or universe as representative of that population or universe.\(^6\)

In this study, the universe population was the 9,039 names on the Dairy Update mailing list. This mailing list compromises GTA Feeds customers and prospective customers. The list is updated after each issue through use of the United States Postal Service's "return address correction requested" procedure. This procedure keeps non-deliverable surveys to a minimum.

The third step in the methodology was selecting the sample to be researched. The authors of Mass Media Research further explain:

Assuming that a sample is chosen according to proper guidelines and is representative of the population, the results from a study using the sample can be generalized to the population.
The use of the Dairy Update mailing list as the sampling frame insures that the sample will reflect the population of the study as accurately as possible.

The sampling design for this study was a probability sample using systematic sample design. In this method, the sample drawn includes every nth entry chosen after an initial random selection, according to George Comstock and Maxwell McCombs. 8

The systematic sampling procedure offers ease of selection, it is inexpensive, and selection can be more accurate than in a simple random sample. 9

It has been documented that sample size is not as important a consideration as sampling error in survey research. As Eli S. Marks stated:

Essentially, we want a sample which will resemble the (unknown) population, and the sampling error is a direct measure of the extent to which the sample result is likely to differ from the population. 10

For this research, a method based on a 95 percent confidence or probability level and a maximum margin of error of plus or minus five was selected.

This survey fell within these parameters, based on statistical tables from Elementary Sampling Theory. (See page 74 in Appendix A). 11 At the above-mentioned confidence level, the table indicated that a sample size of 383 was needed for a population size of 9,000. 12
Don A. Dillman provided guidelines concerning mail survey response rates in *Mail and Telephone Surveys*:

When put to its most difficult test, that is, surveys of the general public using lengthy questionnaires, response rates of 60 to 75 percent are achieved.

To achieve an acceptable rate of response, based on the above mentioned 60 percent response rate, a sample of 640 names was sufficient to acquire the 383 responses needed for a 95 percent confidence or probability level and a maximum margin of error of plus or minus five.

Selecting a representative sample from the *Dairy Update* mailing list to receive the readership survey was the next step. Using the systematic selection system, a random number between 0 and 14 was selected (9) and from that point, every 14th name on the mailing list was selected by the computer housing the mailing list at GTA Feeds. This procedure created a sample of 646 names.

This yielded a statistically significant survey with a 95 percent confidence level and a maximum margin of error of five percent, plus or minus.
Instrument Construction and Procedures

There is an extensive body of literature dealing with mail surveys and the process of conducting survey research. Although there are many documented variations to mail survey procedures, this mail survey utilized procedures from Professional Mail Surveys by Paul L. Erdos.

The survey procedure used an alert postcard, followed by mailing of the questionnaire with a cover letter requesting the respondent's cooperation. A reminder postcard was sent four days after mailing of the initial questionnaire and cover letter. (See pages 78-86 in the Appendix B). 14

The first item, the alert postcard, was mailed four days before the questionnaire and cover letter. It informed potential respondents of the survey and the importance of their cooperation to the success of the survey. Erdos has reported that advance notice sent prior to the questionnaire improved returns by up to 8 percent. 15

Most research suggests that a second mailing of the questionnaire and revised cover letter to non-respondents follow the reminder postcard. Erdos agrees, but allows for variance from normal procedures
when time and cost are important considerations. He explained,

It may then become questionable whether the available money should be spent on a follow-up mailing or on increasing the incentive used for the main mailing. One possibility is to use a bigger incentive and a reminder postcard.

The author chose to use the bigger premium incentive in an effort to increase the rate and speed of response. Success of this procedure was known within two weeks of the first mailing, since research stated that 90 percent of all the returns would have been returned in this time period.¹⁷

Questionnaire construction was the next step in methodology development. The questionnaire, identical for all participants, contained 29 questions. Questions were objective in format and addressed: (1) reading habits, (2) magazine article interest value, (3) reactions to the magazine, including reader feelings toward the magazine, the range of subjects covered and overall appearance, and (4) what readers like and dislike about the magazine.

There were questions on the respondent's age, sex, education, income, product use, and length of time farming. Two open-ended questions allowed the respondents to write their likes and dislikes about the magazine.
The five-page questionnaire and separate cover letter were pretested in a small scale survey of 12 colleagues under the author's supervision, as suggested by Dillman. He explained that "no amount of pretesting is likely to eliminate all problems, but thorough examination of questionnaires by colleagues represents one of the best ways of minimizing them." 

One problem area was observed in the pretesting phase and solved before research began. The problem dealt with who should complete the questionnaire. The author decided that the "owner or senior partner" should be asked to complete the questionnaire.

The author also addressed the topics of postage, deadline, survey sponsorship, and inclusion of an incentive. Much research has been conducted in these areas, however, opinions and results differ.

The postage used in this survey was first class metered for the outer envelope and a first class business reply return envelope. The alert and reminder postcards were mailed under first class postage. Research conducted by Wesley H. Jones and Gerald Linda has shown that "depending on the response rates achieved, the business reply approach may yield substantial savings in mailing costs per returned questionnaire." The availability of a business reply permit made this a cost-effective method.
Due to the follow-up procedures in place for the survey, the publisher and author decided to place no published deadline on the returns. This decision was based on work by Thomas Vocino, who stated "... a deadline in questionnaire cover letters seems to have no positive effect on the rate of response."\(^{21}\)

Responses were tabulated 20 days after initial questionnaire mailing.

The one-page cover letter was designed based on the characteristics outlined in *Professional Mail Surveys*. (See page 79 in the Appendix B).\(^{22}\)

The cover letter was not personalized due to the investment involved. Arnold S. Linsky reported that "since the potency of personalization is low, it may not be worth the additional cost."\(^{23}\)

The cover letter was reproduced on GTA Feeds letterhead stationery. Participants were told in the cover letter that the research on the Dairy Update magazine was being sponsored by GTA Feeds.

The letter stressed the importance of each respondent's answers and, except for the premium incentive redemption card, anonymity was guaranteed to the respondent.

A premium incentive was utilized in the model magazine survey. Linsky reported that studies that have
experienced with premiums have all reported favorable results. 24

Research by Edward G. Goetz, Tom R. Tyler and Fay Lomax Cook stated the advantages of using a promised incentive:

Our findings reflect a 'best of all worlds' situation for the media researcher considering the use of promised incentives. In the data examined, incentives led to greater response rates without selection biases or decreases in data quality. In fact, the data suggest that payment increases data quality by leading to heightened attention to the task for which respondents were being paid.

The promised premium, a 10-foot tape measure, had a wholesale value of $2.60 and a perceived value of approximately $4.00 to $5.00. The premium was used to increase response while also expressing appreciation for participation in the survey. A tape measure was mailed to each participant that returned a completed questionnaire.

The tape measure premium incentive provided the opportunity to tie the survey elements together with a "How do we measure up" theme. Survey participants were informed on the premium redemption card that the questionnaire and premium redemption card were to be separated upon receipt of the return envelope.
**Statistical Techniques of Analysis**

In a mail survey, rate of response is critical. The techniques mentioned earlier -- alert postcard, cover letter, reminder postcard and premium incentive -- were designed to increase respondent response.

In this survey, the author has chosen to use the method described in *Professional Mail Surveys*. The formula stated: "The percentage obtained by dividing the number of completed questionnaires returned by the number mailed."\(^{26}\)

The number of mailed questionnaires returned as undeliverable were also tabulated. Subtracting the number of undeliverable questionnaires from the total number receiving surveys provided a more accurate response rate than use of the original sample.\(^{27}\) This method, used by Dillman, provided a truer response rate since unreachable respondents were no longer part of the population.

Responses to specific *Dairy Update* survey questions were tabulated as numbers and percentages, the method favored by Erdos in mail survey research.\(^{28}\) When a respondent refused to answer a question in the survey, the non-response was factored out of all percentages.
In summary, a methodology for the Dairy Update magazine survey was developed which would meet the needs of the editor and publisher. Questions were constructed to answer specific questions about readership of the magazine. Beyond that, the credibility of the project was enhanced through the use of professional survey techniques.
ENDNOTES


2 Ibid., p. 129.

3 Ibid., p. 126.

4 Ibid., p. 123.


7 Wimmer and Dominick, Mass Media Research, p. 69.


9 Wimmer and Dominick, Mass Media Research, p. 76.


15 Ibid., pp. 89-90.

16 Ibid., p. 132.

17 Ibid., p. 131.


19 Ibid., p. 157.


24 Ibid., p. 99.


26 Erdos, *Professional Mail Surveys*, p. 120.


CHAPTER IV

STUDY RESULTS

In this chapter, the response rate, study results, and cost of the Dairy Update study are analyzed.

In the first section of this chapter, the response rate is calculated and discussed. The second section of the chapter presents the data collected in the survey. The third section gives the costs of the Dairy Update survey.

Survey Response Rate

Response rate is the first point to be addressed. Utilizing the method outlined in the methodology of this thesis, a sample of 646 names was selected from the 9,039 names on the Dairy Update circulation list. A systematic sampling procedure was used.

The survey process began on February 18, 1989 when the Dairy Update magazine was mailed. Two days later the alert postcard was mailed. On February 24, 1989, the cover letter, return envelope, questionnaire, and premium redemption card were mailed. Finally, four days later the reminder/thank you postcard was mailed.
The sample was selected to insure that there would be enough respondents to make judgements on readership even with the relatively low rate of return common to mail surveys.

In Professional Mail Surveys, Paul Erdos stated,

Actually, no level of response is automatically 'sufficient'; the acceptability of the response has to be judged in each case by the nature of the study and the goals and standards which the researcher sets or should set for a particular piece of research.

In the Dairy Update study, the author had hoped for a 50 percent to 60 percent response rate.

When the study was completed, the response rate achieved was 38.8 percent. This figure was arrived at by taking the 646 questionnaires mailed and subtracting the five questionnaires returned as undeliverable. That total of 641 deliverable surveys was then divided by the 249 returned surveys to arrive at the 38.8 percent response rate.

Using Erdos as a guide, this response from a homogeneous group provides a valid base that resembles the population under study. Erdos explained,

The more homogeneous the sample (that is, the fewer conceivable different subgroups it contains) the less we have to worry about obtaining a very high percentage of response.

Table 1 summarizes the response rate achieved in this study.
TABLE 1.--Analysis of mailing and returns by state

<table>
<thead>
<tr>
<th>State</th>
<th>Mailed</th>
<th>Returned</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wisconsin</td>
<td>2</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>481</td>
<td>177</td>
<td>36.8%</td>
</tr>
<tr>
<td>Iowa</td>
<td>5</td>
<td>3</td>
<td>60.0%</td>
</tr>
<tr>
<td>South Dakota</td>
<td>89</td>
<td>42</td>
<td>47.2%</td>
</tr>
<tr>
<td>North Dakota</td>
<td>54</td>
<td>23</td>
<td>42.6%</td>
</tr>
<tr>
<td>Montana</td>
<td>12</td>
<td>4</td>
<td>33.0%</td>
</tr>
<tr>
<td>Wyoming</td>
<td>3</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>641</strong></td>
<td><strong>249</strong></td>
<td><strong>38.8%</strong></td>
</tr>
</tbody>
</table>

Study Results

The second area of analysis was the data. In this study, answers to three questions were sought. They were: "Who are the readers," "What do they read," and "How do readers rate editorial content of the magazine?"

Demographic data collected was used to identify the readers of the Dairy Update magazine. Table 2 profiles the readers responding to the survey through the 15 questions in the classification section of the questionnaire.
TABLE 2.—Demographic information

<table>
<thead>
<tr>
<th>Question/responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you currently own or operate a dairy farm?</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>83.1%</td>
</tr>
<tr>
<td>No</td>
<td>16.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Sex of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Age of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 25</td>
</tr>
<tr>
<td>25-34</td>
</tr>
<tr>
<td>35-44</td>
</tr>
<tr>
<td>45-54</td>
</tr>
<tr>
<td>55-64</td>
</tr>
<tr>
<td>65 or older</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Education level completed by respondent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
</tr>
<tr>
<td>High school graduate</td>
</tr>
<tr>
<td>Some college or technical training</td>
</tr>
<tr>
<td>Two-year college degree</td>
</tr>
<tr>
<td>Four year college degree</td>
</tr>
<tr>
<td>Post-graduate studies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Livestock currently raised on farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef/cow calf</td>
</tr>
<tr>
<td>Beef/dairy beef feedlot</td>
</tr>
<tr>
<td>Dairy cattle</td>
</tr>
<tr>
<td>Hogs</td>
</tr>
<tr>
<td>Poultry</td>
</tr>
<tr>
<td>Sheep</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Milk cows/heifers currently on farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>Under 15</td>
</tr>
<tr>
<td>16-35</td>
</tr>
<tr>
<td>36-50</td>
</tr>
<tr>
<td>51-75</td>
</tr>
<tr>
<td>76-100</td>
</tr>
<tr>
<td>101-150</td>
</tr>
<tr>
<td>151 or more</td>
</tr>
</tbody>
</table>
TABLE 2.—Continued

8A. Owned, leased or deeded acres crop land in 1989
   under 99 acres ............... 7.5%
   100-249 .................. 30.2%
   250-499 .................. 37.7%
   500-999 .................. 19.3%
   1,000 or more ............ 5.2%

8B. Owned, leased or deeded acres pasture land in 1989
   under 99 acres ............... 56.6%
   100-249 .................. 22.4%
   250-499 .................. 9.2%
   500-999 .................. 4.6%
   1,000 or more ............ 7.2%

9. Are you currently using GTA Feeds products?
   Yes .................... 30.3%
   No ..................... 69.7%

10. Feed companies purchased from in past year
     None .................... 4.1%
     1 ........................ 25.8%
     2 ........................ 35.7%
     3 ........................ 25.3%
     4 ........................ 5.4%
     5 ........................ 2.3%
     6 ........................ 9%
     15 ........................ 5%

11. Do you receive other feed company informational
    magazines, newsletters, pamphlets or newspapers?
    Yes .................... 77.1%
    No ..................... 22.9%

12. In past two months, how many different feed sales
    representatives have called on your operation?
    None .................... 39.6%
    1 ........................ 18.0%
    2 ........................ 21.2%
    3 ........................ 5.4%
    4 ........................ 8.6%
    5 ........................ 2.7%
    6 ........................ 3.6%
    10 ....................... 9%
TABLE 2.--Continued

13. Farm's total gross farm income in 1988
   
<table>
<thead>
<tr>
<th>Income Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>under $10,000</td>
<td>1.4%</td>
</tr>
<tr>
<td>$10,000 - $19,999</td>
<td>5.5%</td>
</tr>
<tr>
<td>$20,000 - $39,999</td>
<td>9.6%</td>
</tr>
<tr>
<td>$40,000 - $59,999</td>
<td>11.9%</td>
</tr>
<tr>
<td>$50,000 - $99,999</td>
<td>22.5%</td>
</tr>
<tr>
<td>over $100,000</td>
<td>49.1%</td>
</tr>
</tbody>
</table>

14. Years owner or senior partner involved in farming
   
<table>
<thead>
<tr>
<th>Years</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>.9%</td>
</tr>
<tr>
<td>5-9</td>
<td>1.3%</td>
</tr>
<tr>
<td>10-19</td>
<td>19.5%</td>
</tr>
<tr>
<td>20-29</td>
<td>15.5%</td>
</tr>
<tr>
<td>30-39</td>
<td>29.6%</td>
</tr>
<tr>
<td>40-49</td>
<td>17.7%</td>
</tr>
<tr>
<td>50 years or more</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

15. State of residence of respondents
   
<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dakota</td>
<td>16.7%</td>
</tr>
<tr>
<td>Iowa</td>
<td>1.3%</td>
</tr>
<tr>
<td>Minnesota</td>
<td>71.8%</td>
</tr>
<tr>
<td>North Dakota</td>
<td>8.4%</td>
</tr>
<tr>
<td>Montana</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Respondent total = 249

No answer to questions factored out of all percentages.
The first question in this section was "Do you currently own or operate a dairy farm?" The survey data indicated that 83.1 percent of the respondents owned or operated a dairy farm. The remaining 16.9 percent of those receiving the Dairy Update magazine were not actively involved in dairying. The majority (51.4 percent) of respondents not dairying were crop farmers.

TABLE 3.--Occupation of respondents not dairying

<table>
<thead>
<tr>
<th>Occupation</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop farmers</td>
<td>19</td>
<td>51.4%</td>
</tr>
<tr>
<td>Raise beef</td>
<td>5</td>
<td>13.5%</td>
</tr>
<tr>
<td>Raise hogs</td>
<td>4</td>
<td>10.8%</td>
</tr>
<tr>
<td>Retired farmers</td>
<td>3</td>
<td>8.1%</td>
</tr>
<tr>
<td>Teachers</td>
<td>3</td>
<td>8.1%</td>
</tr>
<tr>
<td>Dairy Herd Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Association supervisors</td>
<td>2</td>
<td>5.4%</td>
</tr>
<tr>
<td>Raise sheep</td>
<td>1</td>
<td>2.7%</td>
</tr>
<tr>
<td>Hired farmhand</td>
<td>1</td>
<td>2.7%</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

Of those responding to the survey, which asked for the senior partner or owner to complete the questionnaire, 97.3 percent were male.

The demographic data allowed the author to construct a profile of the Dairy Update magazine reader. The reader is male, with 66.8 percent being 45 years of age or older. He had not completed high school or was a high school graduate (74.5 percent) and had been farming 30 years or more (62.8 percent).
In response to the question asking for respondent total gross farm income, 71.6 percent of respondents earned $60,000 or more in 1988.

The demographic data indicate that 30.9 percent of the respondents were using GTA Feeds products. The data also showed that respondents had purchased feed from three or fewer feed companies during the past year (90.9 percent).

Another question relevant to the readership study being conducted asked respondents if they received magazines, newsletters, pamphlets, or newspapers from the feed companies. Seventy-seven percent of the respondents regularly received these publications.

Responses to items in the readership section of the questionnaire provided data used to answer the second question, "What do they read?"

Table 4 lists the magazines that respondents read regularly. Table 5 lists the magazines that the respondents rated most valuable in making business decisions.

In response to the question "What other publications do you read regularly," the largest percentage (78.7 percent) listed Farm Journal. Following closely were The Farmer, 70.7 percent; Successful Farming, 70.7 percent; Dairy Herd
Management, 57.0 percent; and Hoards Dairyman, 53.8 percent.

From the magazines listed Table 5, respondents selected Hoards Dairyman (36.5 percent) as the most valuable in making business decisions.

TABLE 4.--Magazines read regularly by respondents

<table>
<thead>
<tr>
<th>Magazine</th>
<th>Read Regularly</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Journal</td>
<td>196</td>
<td>78.7%</td>
</tr>
<tr>
<td>The Farmer</td>
<td>176</td>
<td>70.7%</td>
</tr>
<tr>
<td>Successful Farming</td>
<td>175</td>
<td>70.7%</td>
</tr>
<tr>
<td>Dairy Herd Management</td>
<td>142</td>
<td>57.0%</td>
</tr>
<tr>
<td>Hoards Dairyman</td>
<td>134</td>
<td>53.8%</td>
</tr>
<tr>
<td>Dairy</td>
<td>102</td>
<td>41.0%</td>
</tr>
<tr>
<td>Progressive Farming</td>
<td>29</td>
<td>11.6%</td>
</tr>
<tr>
<td>Beef</td>
<td>25</td>
<td>10.0%</td>
</tr>
<tr>
<td>Beef Today</td>
<td>23</td>
<td>9.2%</td>
</tr>
<tr>
<td>National Hog Farmer</td>
<td>21</td>
<td>8.4%</td>
</tr>
<tr>
<td>U.S. News and World Report</td>
<td>19</td>
<td>7.6%</td>
</tr>
<tr>
<td>Newsweek</td>
<td>18</td>
<td>7.2%</td>
</tr>
<tr>
<td>Time</td>
<td>12</td>
<td>4.8%</td>
</tr>
<tr>
<td>Pork</td>
<td>11</td>
<td>4.4%</td>
</tr>
<tr>
<td>Farm Industry News</td>
<td>10</td>
<td>4.0%</td>
</tr>
<tr>
<td>Wallaces Farmer</td>
<td>10</td>
<td>4.0%</td>
</tr>
<tr>
<td>Ag Week</td>
<td>9</td>
<td>3.6%</td>
</tr>
<tr>
<td>Hog Farm Management</td>
<td>9</td>
<td>3.6%</td>
</tr>
<tr>
<td>Feed Management</td>
<td>8</td>
<td>3.2%</td>
</tr>
<tr>
<td>Feedlot Management</td>
<td>7</td>
<td>2.8%</td>
</tr>
<tr>
<td>Farmer Stockman</td>
<td>6</td>
<td>2.4%</td>
</tr>
<tr>
<td>Cooperative Partners</td>
<td>5</td>
<td>2.0%</td>
</tr>
<tr>
<td>Farm Futures</td>
<td>5</td>
<td>2.0%</td>
</tr>
<tr>
<td>National Cattlemen</td>
<td>4</td>
<td>1.6%</td>
</tr>
<tr>
<td>Drover's Journal</td>
<td>4</td>
<td>1.6%</td>
</tr>
<tr>
<td>Farm &amp; Ranch Guide</td>
<td>4</td>
<td>1.6%</td>
</tr>
<tr>
<td>Other</td>
<td>71</td>
<td>28.5%</td>
</tr>
</tbody>
</table>

Number in sample: 249
TABLE 5.--Magazines rated most valuable

<table>
<thead>
<tr>
<th>Magazine</th>
<th>Most Value</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoards Dairyman</td>
<td>91</td>
<td>36.5%</td>
</tr>
<tr>
<td>The Farmer</td>
<td>90</td>
<td>36.1%</td>
</tr>
<tr>
<td>Farm Journal</td>
<td>69</td>
<td>27.7%</td>
</tr>
<tr>
<td>Successful Farming</td>
<td>56</td>
<td>22.5%</td>
</tr>
<tr>
<td>Dairy Herd Management</td>
<td>51</td>
<td>20.5%</td>
</tr>
<tr>
<td>Dairy</td>
<td>18</td>
<td>7.2%</td>
</tr>
<tr>
<td>Progressive Farming</td>
<td>10</td>
<td>4.0%</td>
</tr>
<tr>
<td>Other</td>
<td>37</td>
<td>14.9%</td>
</tr>
</tbody>
</table>

Number in sample: 249

Turning to the Dairy Update magazine, 94.4 percent of the respondents indicated that they had received the issue of the magazine being studied.

Thirty-seven (14.9 percent) indicated that they received the Beef Update magazine and 20 (8.0 percent) indicated that they received the Hog Update magazine.

GTA Feeds offers these three magazines to customers and prospective customers. It is possible for a person to receive one, two or all three of the quarterly magazines.

TABLE 6.--Amount of each Dairy Update issue read

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never read any of the magazine</td>
<td>5</td>
<td>2.1%</td>
</tr>
<tr>
<td>Just skim through it</td>
<td>20</td>
<td>8.6%</td>
</tr>
<tr>
<td>Read one article</td>
<td>17</td>
<td>7.3%</td>
</tr>
<tr>
<td>Read most articles</td>
<td>168</td>
<td>72.1%</td>
</tr>
<tr>
<td>Read it cover to cover</td>
<td>23</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

233
Information from Table 6 showed that 82 percent of the respondents read the *Dairy Update* from cover to cover or read most articles. Only 2.1 percent indicated that they never read any of the magazine.

Table 7 shows the response to the question "After receiving your *Dairy Update*, when do you read it?" The survey showed that 78.5 percent of the respondents read their issue of the magazine either right away or within a day or two. An additional 20.2 percent of magazine readers read the magazine within a week.

**TABLE 7.--When magazine is read**

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right away</td>
<td>39</td>
<td>17.1%</td>
</tr>
<tr>
<td>Within a day or two</td>
<td>140</td>
<td>61.4%</td>
</tr>
<tr>
<td>Within a week</td>
<td>46</td>
<td>20.2%</td>
</tr>
<tr>
<td>Longer than a week</td>
<td>3</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

The survey indicated that a large percentage of the magazines are read by more than one person. In response to the question: "How many people in your farming or ranching operation, other than yourself, also read your issue of *Dairy Update* magazine?" 44.4 percent indicated that two people read each issue. In addition, Table 8 shows that 25.6 percent of respondents indicated that the magazine had three readers.
TABLE 8.--Persons reading each issue

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>48</td>
<td>20.5%</td>
</tr>
<tr>
<td>Two</td>
<td>104</td>
<td>44.4%</td>
</tr>
<tr>
<td>Three</td>
<td>60</td>
<td>25.6%</td>
</tr>
<tr>
<td>Four</td>
<td>14</td>
<td>6.0%</td>
</tr>
<tr>
<td>Five or more</td>
<td>2</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>228</td>
<td></td>
</tr>
</tbody>
</table>

Further information on what the readers read was collected by having respondents rate the articles in the issue of Dairy Update on a seven-point interest scale. On the scale, "did not read" was counted, but was not included in the total number of read responses. "Not at all interesting" had a value of one and "very interesting" had a value of seven. The interest rate was calculated by multiplying the number of responses by the interest value rating selected by the respondent. The total interest value number was then divided by the read responses to provide the mean interest value number for each article.

As is shown in Table 9, the feature article on the Hutterites received an interest rating of 5.58. The dairy producer feature article received a 5.21 interest rating and the article on animal rights received a 5.20 interest rating.
TABLE 9.—Interest rating based on seven-point scale

<table>
<thead>
<tr>
<th>Article</th>
<th>Did Not Read</th>
<th>Did Read</th>
<th>Percent Interest Rated</th>
<th>Interest Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commentary</td>
<td>59</td>
<td>138</td>
<td>70.1%</td>
<td>4.57</td>
</tr>
<tr>
<td>Animal rights feature</td>
<td>21</td>
<td>186</td>
<td>89.9%</td>
<td>5.20</td>
</tr>
<tr>
<td>Winter dysentery article</td>
<td>34</td>
<td>173</td>
<td>83.6%</td>
<td>5.14</td>
</tr>
<tr>
<td>NRC nutrition article</td>
<td>56</td>
<td>142</td>
<td>71.7%</td>
<td>4.68</td>
</tr>
<tr>
<td>Dairy producer feature</td>
<td>27</td>
<td>175</td>
<td>86.6%</td>
<td>5.21</td>
</tr>
<tr>
<td>Hutterite feature</td>
<td>31</td>
<td>177</td>
<td>85.1%</td>
<td>5.58</td>
</tr>
</tbody>
</table>

The animal health article on winter dysentery received a 5.14 interest rating and the article on the National Research Council nutritional requirements for dairy cattle received an interest rating of 4.68. The commentary column by the general manager of GTA Feeds received the lowest interest rating at 4.57.

The amount of an article that a respondent read cannot be ascertained from this research. However, a rough indication can be drawn as to readership of individual articles by calculating the percentage of respondents who made interest ratings against respondents who did not read an article.

This calculation shows that the articles read or looked at most often were the animal rights article, the producer feature, and the Hutterite feature.
The third research question answered in this study was, "How do readers rate editorial content of the magazine?" To answer this question, respondents were asked to rate a series of ten statements on a five-point scale with one being "strongly disagree," three being "Neither agree nor disagree," and five being "strongly agree."

Table 10 lists the statement and the percentage of disagreement or agreement with that statement.

The highest agreement rating (91.2 percent) was achieved in response to the statement: The Dairy Update is concerned about issues important to livestock producers. The next highest agreement rating (89.2 percent) was achieved by the statement: The Dairy Update is well organized and easy to read.

The data indicated that 80.6 percent agreed with the statement: Information presented in the Dairy Update is presented in an accurate and believable manner. Seventy-seven percent of respondents agreed with the statement: The Dairy Update has provided me with information useful to me in my operation.

While 78.5 percent of respondents agreed that the magazine had a good mix of articles, only 51.2 percent agreed that the magazine provided information not read in other magazines.
TABLE 10. -- Rating of Dairy Update content and overall evaluation

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree or disagree</th>
<th>Neither agree nor disagree</th>
<th>Strongly agree or agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dairy Update does a good job of presenting livestock production</td>
<td>N 219</td>
<td>0.9%</td>
<td>16.4%</td>
</tr>
<tr>
<td>information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Dairy Update is concerned about issues important to livestock</td>
<td>N 216</td>
<td>0.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>producers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information presented in the Dairy Update is presented in an accurate and</td>
<td>N 216</td>
<td>0.9%</td>
<td>18.5%</td>
</tr>
<tr>
<td>believable manner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Dairy Update is well organized and easy to read</td>
<td>N 213</td>
<td>2.8%</td>
<td>7.8%</td>
</tr>
<tr>
<td>The Dairy Update has provided me with information useful to me in my</td>
<td>N 213</td>
<td>1.9%</td>
<td>21.1%</td>
</tr>
<tr>
<td>operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Dairy Update has a good mix of articles in different areas of livestock</td>
<td>N 209</td>
<td>3.8%</td>
<td>17.7%</td>
</tr>
<tr>
<td>production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Dairy Update does not have enough Information on specific GTA Feeds</td>
<td>N 211</td>
<td>19.9%</td>
<td>59.2%</td>
</tr>
<tr>
<td>products and services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Dairy Update provides me with information I have not read in other</td>
<td>N 209</td>
<td>11.5%</td>
<td>37.3%</td>
</tr>
<tr>
<td>publications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I would not receive an issue of Dairy Update, I would miss it</td>
<td>N 215</td>
<td>9.3%</td>
<td>29.3%</td>
</tr>
<tr>
<td>Overall, I believe the Dairy Update is a quality publication</td>
<td>N 218</td>
<td>2.3%</td>
<td>11.0%</td>
</tr>
</tbody>
</table>
The final two statements showed respondent overall feeling toward the Dairy Update magazine. Sixty-one percent agreed that they would miss the Dairy Update if they did not receive an issue. A total of 86.7 percent agreed with the statement: Overall, I believe the Dairy Update is a quality publication.

The next question on the questionnaire asked respondents if they had ever contacted their feed dealer or feed consultant for information as a result of an article seen in the Dairy Update. Thirty percent said that they had contacted one of the two for information after reading the magazine.

TABLE 11.--Have you contacted your feed dealer or feed consultant for information as a result of a Dairy Update article

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>68</td>
<td>30.1%</td>
</tr>
<tr>
<td>No</td>
<td>158</td>
<td>69.9%</td>
</tr>
<tr>
<td></td>
<td>226</td>
<td></td>
</tr>
</tbody>
</table>

Another indication of the opinion respondents had toward the magazine's content was found in their response to the question: "Do you wish to continue receiving the Dairy Update?" Table 12 shows that 93.4 percent of those responding wished to continue receiving the magazine.
TABLE 12.--Respondents wishing to continue receiving
The Dairy Update magazine

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>211</td>
<td>93.4%</td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

226

Respondent likes and dislikes of the magazine may also be used as a means of rating content of the magazine. Similar responses to the two open-ended questions were combined to make the data more manageable. Responses to the question asking what readers liked about the magazine outnumbered responses to the question asking for dislikes 153 to 16. Twenty-seven responses to the reader dislike question were the word nothing.

TABLE 13.--What respondents like about the Dairy Update magazine

<table>
<thead>
<tr>
<th>Comment</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good general information</td>
<td>44</td>
<td>28.8%</td>
</tr>
<tr>
<td>Feature articles</td>
<td>27</td>
<td>17.6%</td>
</tr>
<tr>
<td>Easy to read, understandable</td>
<td>19</td>
<td>12.4%</td>
</tr>
<tr>
<td>Short, to the point</td>
<td>14</td>
<td>9.2%</td>
</tr>
<tr>
<td>Interesting reading</td>
<td>12</td>
<td>7.8%</td>
</tr>
<tr>
<td>Variety of information</td>
<td>8</td>
<td>5.2%</td>
</tr>
<tr>
<td>Pictures</td>
<td>6</td>
<td>3.9%</td>
</tr>
<tr>
<td>All of it</td>
<td>5</td>
<td>3.3%</td>
</tr>
<tr>
<td>Current, timely articles</td>
<td>4</td>
<td>2.6%</td>
</tr>
<tr>
<td>Not all advertising</td>
<td>4</td>
<td>2.6%</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

153
Readers liked the magazine for its good, general information (28.8 percent) and its feature articles (17.6 percent). Table 14 shows the reasons respondents disliked the magazine.

**TABLE 14.--What respondents dislike about the Dairy Update magazine**

<table>
<thead>
<tr>
<th>Comment</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing</td>
<td>27</td>
<td>62.8%</td>
</tr>
<tr>
<td>Not thick enough</td>
<td></td>
<td></td>
</tr>
<tr>
<td>need more information</td>
<td>4</td>
<td>9.3%</td>
</tr>
<tr>
<td>Too much advertising</td>
<td>2</td>
<td>4.7%</td>
</tr>
<tr>
<td>Emphasize large producers</td>
<td>2</td>
<td>4.7%</td>
</tr>
<tr>
<td>Don't continue stories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on other pages</td>
<td>2</td>
<td>4.7%</td>
</tr>
<tr>
<td>Information already seen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in other magazines</td>
<td>2</td>
<td>4.7%</td>
</tr>
<tr>
<td>Not often enough</td>
<td>1</td>
<td>2.3%</td>
</tr>
<tr>
<td>Not well organized</td>
<td>1</td>
<td>2.3%</td>
</tr>
<tr>
<td>Hard to understand</td>
<td>1</td>
<td>2.3%</td>
</tr>
<tr>
<td>Not enough producer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>testimonial information</td>
<td>1</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

43

Data not used to answer the three research questions is located in Appendix A.

In summary, data from the survey of Dairy Update readers provided answers to the research questions, "Who are the readers," "What do they read," and "How do they rate editorial content of the magazine?"

**Cost of the Study**

The cost of this in-house readership instrument was an important consideration in this study.
Professional readership research conducted by an outside firm is expensive. The model created in this thesis provides a guide for magazine publishers who plan to conduct readership research at a lower cost.

The costs incurred by the publisher for the Dairy Update magazine readership study are listed in Table 15.

**TABLE 15.--Cost of Dairy Update readership study**

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 alert postcards, postage, questionnaires, envelopes, and premium redemption cards</td>
<td>$1,250.00</td>
</tr>
<tr>
<td>Return postage</td>
<td>$80.00</td>
</tr>
<tr>
<td>750 reminder/thank you postcards</td>
<td>$283.00</td>
</tr>
<tr>
<td>Premium incentive, postage, envelope</td>
<td>$996.00</td>
</tr>
<tr>
<td>Tabulation expenses</td>
<td>$125.00</td>
</tr>
<tr>
<td>Total</td>
<td>$2,734.00</td>
</tr>
</tbody>
</table>

The staff of the South Dakota State University Computer Center provided assistance with data tabulation.

The cost of this readership study was below the amount that the publisher expected to spend. This readership study model offers the publisher with a smaller research budget options to alter the study to fit his budgetary constraints.

Alterations to reduce the cost of using this model include using a less expense premium incentive or elimination of the premium incentive in favor of a second mailing of the questionnaire.
In conclusion, the Dairy Update study provided the publisher with the information he sought at a cost that was within his budgetary specifications.
ENDNOTES


2 Ibid., p. 146.
CHAPTER V

SUMMARY AND CONCLUSION

The objective of this study was to design a model in-house readership instrument to be used on a company-sponsored magazine. In the process of testing the model, it was hoped that the study itself would provide valuable readership data on the Dairy Update, the magazine used in the survey.

This study sought readership data that could be used to assess the effectiveness of a company-sponsored magazine. The model was designed to answer the questions, "Who are the readers," "What do they read," and "How do readers rate editorial content of the magazine?"

Feedback from a magazine's readers is important, according to B.J. Altschul, author of "How to Market and Monitor Your External Publication." Altschul stated that, "You need to have a yardstick to measure if your publication is on target, if you're publishing the right information for the right reasons, if you're meeting the reader's needs."1

In the process of designing this readership model, acquiring background information on magazine readership was difficult. There were a limited number of magazine readership research studies found in
academic journals. Readership research conducted in the private sector was not, in the vast majority of cases, available because of the proprietary nature of the data. Studies cited throughout this thesis, along with information from Professional Mail Surveys by Paul L. Erdos, served as guides in constructing this model.

The lack of magazine readership studies for use as background information indicate that this model could satisfy the need for a published readership research instrument. The abundance of information available on methodology design in readership research was extremely useful.

A minor weakness in this study was its low response rate. The response rate did not reach the 50 percent to 60 percent response rate expected by the author. However, the 38.8 percent response rate achieved from the homogeneous sample in this study did provide a valid base that resembled the population under study, according to Erdos' standards. ²

To facilitate response, the survey was conducted during winter, a time when farmers usually have spare time not available during the planting, summer, or harvesting seasons.

The survey followed procedures outlined in Professional Mail Surveys. An alert postcard was mailed to alert sample members to the study. Sample
members then received the questionnaire, cover letter, postage-paid return envelope, and premium incentive card. The next step in the process was to mail the reminder/thank you postcard. The final step in the procedure was to mail the premium incentive to respondents.

This model study showed that a readership study can be conducted quickly and efficiently. This study also provided valuable readership information that the editor and publisher of the magazine under study can use in making editorial decisions.

The Dairy Update Study

Not all readership research studies can expect the positive response that was achieved in this study of the GTA Feeds Dairy Update magazine.

The data revealed that dairy farmers rely on a large number of publications. The magazines read most regularly were the Farm Journal, Successful Farming, The Farmer, and Dairy Herd Management. The number of magazines read by respondents indicated that competition for the attention and reading time of dairy farmers was keen.

Farm magazines were surpassed only by local feed dealers and veterinarians as helpful sources of livestock nutrition, health, and management.
information. Veterinarians were rated usually or always helpful (88.0 percent), followed by local feed dealers, 85.9 percent; and farm magazines, 83.7 percent. (See page 76 in Appendix B).

In this competitive environment, the Dairy Update received very high marks. The magazine was read either right away or within a day or two by 78.5 percent of respondents. Eighty-two percent of those responding read most or all of the articles in the issue.

Each issue was read by 2.14 persons and 93.4 percent of respondents wished to continue receiving the Dairy Update magazine.

The vast majority of readers gave the Dairy Update high marks in the areas of accuracy and believability, concern about issues important to livestock producers, presentation of information, and organization and ease of reading. Overall, 86.7 percent of readers believed the Dairy Update was a quality publication.

One area of concern for the editor and publisher of the magazine was uncovered by reader response to the statement: The Dairy Update provides me with information I have not read in other publications. Only 51.2 percent agreed or strongly agreed with this statement. A second area of concern was the low interest rating of the commentary and dairy nutrition
articles. To remedy these situations, the editor and contributing authors may have to be more innovative in their selection of topics.

Another area of concern was the large response from Minnesota dairy farmers. The survey, while random in nature, is heavily weighted toward the Minnesota audience. The response from Minnesota accounted for 71.8 percent of the response rate. Data supplied by GTA Feeds lists the company's market share in Minnesota at less than 5.0 percent. The survey revealed that 30.3 percent of respondents were currently using GTA Feeds products. This supports, but does not confirm, the theory that GTA Feeds products are used more often by Dairy Update readers.

In the introduction, it was stated that the company-sponsored magazine also represents its company as a member of the sales force. Thirty percent of Dairy Update magazine readers revealed that they had contacted a feed dealer or feed consultant for information as a result of an article seen in the Dairy Update magazine. This indicates that the magazine provides valuable support to the GTA Feeds sales force.

From the demographic data, 77.1 percent of readers indicated that they regularly received informational magazines, newsletters, pamphlets, or newspapers from other feed companies. The Dairy
The Dairy Update's favorable overall rating in the readership section is encouraging when considering the competition for dairy farmer attention.

The editor of the magazine stated that the Dairy Update functions as a reminder of GTA Feeds that enters the farmer's home four times each year. Strong readership ratings indicate that this magazine is reaching its target audience effectively.

The reader of the magazine is older, with 66.8 percent being 45 years of age or older. This may account for the education level of readers. Fifty-one percent had graduated from high school and 23.6 percent had not graduated from high school.

The main concern generated from the demographic data came from the question asking if the respondent currently owned or operated a dairy farm. The majority, 83.1 percent, answered yes. The 16.9 percent of readers that were not actively engaged in dairying did concern the editor and publisher. This data indicates that more emphasis may need to be placed on maintenance of the Dairy Update circulation list.

The data from this study offers the editor and publisher of the Dairy Update magazine the luxury of making decisions based on facts, not hunches.

The author of this thesis, along with the editor and publisher of the Dairy Update magazine, found that
this model met and exceeded their expectations. A credible method of gathering readership data was created and used successfully.

**Recommendations for Further Study**

The model designed for use in this thesis offers other company-sponsored magazine editors or publishers a flexible means of conducting research in a cost effective manner.

The premium incentive used to increase response rate in this study could be replaced by a less expensive premium incentive item. The *Feedstuffs* study discussed in the methodology of this thesis included one dollar as an incentive. The elimination of the premium incentive or replacing it with a second mailing of the questionnaire, cover letter, and postage-paid return envelope is another method that could reduce survey cost and possible increase response rate.

A survey offering half of the sample members a premium incentive while the other half received a second mailing of the questionnaire instead of the premium incentive could prove interesting.

This study used a systematic sampling design. Magazine publishers interested in readership data based on county, state or region could use a stratified sample
design. A stratified sample is selected after the population has been divided into categories.

The model designed in this study also offers the researcher the flexibility needed to alter the instrument to fit his or her specific readership research needs.
ENDNOTES


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APPENDIXES
## APPENDIX A

<table>
<thead>
<tr>
<th>Temperature (°F)</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>70</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>80</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>90</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<td>110</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>120</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: The data represents the percentage of a specified condition being met. For example, if the temperature is 70°F, the condition is met 0% of the time.
TABLE 16.—Sample size for specified confidence limits and precision when sampling attributes in percent

A. 95% confidence interval ($p = 0.5$)

<table>
<thead>
<tr>
<th>Population size</th>
<th>Sample size for precision of</th>
<th>±1%</th>
<th>±2%</th>
<th>±3%</th>
<th>±4%</th>
<th>±5%</th>
<th>±10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>222</td>
<td>83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000</td>
<td>b</td>
<td>b</td>
<td>385</td>
<td>286</td>
<td>91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,500</td>
<td>b</td>
<td>638</td>
<td>441</td>
<td>316</td>
<td>94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,000</td>
<td>b</td>
<td>714</td>
<td>476</td>
<td>333</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,500</td>
<td>b</td>
<td>1,250</td>
<td>500</td>
<td>345</td>
<td>96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,000</td>
<td>b</td>
<td>1,364</td>
<td>517</td>
<td>353</td>
<td>97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3,500</td>
<td>b</td>
<td>1,458</td>
<td>530</td>
<td>359</td>
<td>97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,000</td>
<td>b</td>
<td>1,538</td>
<td>541</td>
<td>364</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4,500</td>
<td>b</td>
<td>1,607</td>
<td>549</td>
<td>367</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5,000</td>
<td>b</td>
<td>1,667</td>
<td>556</td>
<td>370</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6,000</td>
<td>b</td>
<td>1,765</td>
<td>566</td>
<td>375</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7,000</td>
<td>b</td>
<td>1,842</td>
<td>574</td>
<td>378</td>
<td>99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8,000</td>
<td>b</td>
<td>1,905</td>
<td>580</td>
<td>381</td>
<td>99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9,000</td>
<td>b</td>
<td>1,957</td>
<td>584</td>
<td>383</td>
<td>99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td>5,000</td>
<td>2,000</td>
<td>588</td>
<td>385</td>
<td>99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15,000</td>
<td>6,000</td>
<td>2,143</td>
<td>600</td>
<td>390</td>
<td>99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20,000</td>
<td>6,667</td>
<td>2,222</td>
<td>606</td>
<td>392</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25,000</td>
<td>7,143</td>
<td>2,273</td>
<td>610</td>
<td>394</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50,000</td>
<td>8,333</td>
<td>2,381</td>
<td>617</td>
<td>397</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100,000</td>
<td>9,091</td>
<td>2,439</td>
<td>621</td>
<td>398</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\rightarrow \infty$</td>
<td>10,000</td>
<td>2,500</td>
<td>625</td>
<td>400</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* Proportion of units in sample possessing characteristic being measured; for other values of $p$, the required sample size will be smaller.

*b* In these cases 50% of the universe in the sample will give more than the required accuracy. Since the normal distribution is a poor approximation of the hypergeometrical distribution when $n$ is more than 50% of $N$, the formula used in this calculation does not apply.
<table>
<thead>
<tr>
<th>Article title</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine somatotropin increases production, reduces costs</td>
<td>75</td>
<td>30.0%</td>
</tr>
<tr>
<td>Carbonated milk products offer consumers an alternative</td>
<td>85</td>
<td>34.1%</td>
</tr>
<tr>
<td>Update on computer feeding on the dairy farm</td>
<td>42</td>
<td>16.9%</td>
</tr>
<tr>
<td>Teat dips -- what to look for when buying</td>
<td>93</td>
<td>37.3%</td>
</tr>
<tr>
<td>Impact of genetic improvements on your herd</td>
<td>95</td>
<td>38.2%</td>
</tr>
<tr>
<td>Dairy industry faces diet-health issue</td>
<td>111</td>
<td>44.6%</td>
</tr>
<tr>
<td>Using DHIA records to your advantage</td>
<td>76</td>
<td>30.5%</td>
</tr>
<tr>
<td>Do buffers have a place in your dairy ration</td>
<td>90</td>
<td>36.1%</td>
</tr>
</tbody>
</table>
TABLE 18.--Usefulness of information sources

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>Not/rarely Helpful</th>
<th>No Opinion</th>
<th>Usually/always Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local feed dealer</td>
<td>212</td>
<td>19.0%</td>
<td>5.2%</td>
<td>85.9%</td>
</tr>
<tr>
<td>Elevator manager</td>
<td>201</td>
<td>25.4%</td>
<td>18.9%</td>
<td>55.7%</td>
</tr>
<tr>
<td>County agent</td>
<td>201</td>
<td>27.4%</td>
<td>16.9%</td>
<td>55.7%</td>
</tr>
<tr>
<td>Veterinarian</td>
<td>216</td>
<td>6.0%</td>
<td>6.0%</td>
<td>88.0%</td>
</tr>
<tr>
<td>Feed representative</td>
<td>195</td>
<td>16.4%</td>
<td>14.9%</td>
<td>68.7%</td>
</tr>
<tr>
<td>Feed publications</td>
<td>201</td>
<td>12.4%</td>
<td>19.9%</td>
<td>69.2%</td>
</tr>
<tr>
<td>Farm magazines</td>
<td>202</td>
<td>7.9%</td>
<td>8.4%</td>
<td>83.7%</td>
</tr>
<tr>
<td>Farmers/ranchers</td>
<td>165</td>
<td>19.4%</td>
<td>21.8%</td>
<td>58.8%</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>11.1%</td>
<td>22.2%</td>
<td>66.7%</td>
</tr>
</tbody>
</table>
Dear Emily McMorris

I would like to welcome you to a special session of HYA from HYA Update Program of Japan. In this time we would like to introduce our students' work and ideas.

In the first meeting you will have to make a summary of your presentations. The presentation will be divided into two parts: the first part will be the introduction and the second part will be the discussion. The discussion will be divided into two parts: the first part will be the discussion between the students and the second part will be the discussion between the students and the teachers.

Thank you for your participation. We hope you will enjoy your stay with us.

Sincerely,

[Signature]

APPENDIX B
Dear Dairy Update Reader:

I would like to ask for your help in a special survey of GTA Feeds Dairy Update magazine readers. We need to know how we "measure up" to our readers' needs and interests.

In the next few days you will receive a survey questionnaire. Your participation in this study is very important and will be kept confidential.

For your help measuring us, we're offering you a special FREE 10-foot tape measure. Watch your mail for details.

Thank you for your cooperation. Your answers will help the magazine make decisions about the kind of articles it prints.

Sincerely,

Stephen Simons
GTA Feeds
Dear Dairy Update reader:

Tell us what you think...

Recently Stephen Simons, editor of Update magazine, sent you a card about a readership study we are currently undertaking. Your response to this survey will provide useful information in publishing a magazine that "measures up" to your needs and interests.

You are one of a small, scientifically selected random sample; therefore, your response is very important to the survey's validity. Your answer will be kept in complete confidence and will only be used along with other replies to draw a composite picture of Dairy Update reader opinions and demographics.

The questionnaire survey is designed to be answered easily. It should take about 15 minutes. You help measure us and we'll help you measure with a useful FREE gift. Your answers will enable the editor of Dairy Update magazine to provide you with a magazine meeting your information needs. We want your honest and candid evaluation of our magazine.

You simply complete the questionnaire and return it to us in the enclosed postage-paid envelope.

Thank you for your cooperation in this project.

Sincerely,

Karl Butzer
General Manager
GTA Feeds

PS: As a token of our appreciation for your help, we'll send you a FREE 10-foot tape measure. Just complete the enclosed Premium Redemption Card and return it with your completed questionnaire in the post-paid envelope.

HOW DO WE MEASURE UP . . .

You have been selected to participate in a study that will attempt to discover what readers of the GTA Feeds Dairy Update magazine think about the magazine and its content. We are not concerned with individual responses and guarantee each respondent anonymity. We only ask that the owner or senior partner in the operation complete the questionnaire.

When you have completed the survey, don’t forget to return the FREE gift card and completed questionnaire in the postage-paid envelope.

Please respond to the following questions about your reading habits of the GTA Dairy Update magazine with the response that best represents your feeling.

1. Which of the Update magazines do you currently receive? (Check all that apply.)
   1. Beef Update
   2. Dairy Update
   3. Hog Update

   If you do not receive the Dairy Update magazine, please complete questions 1-15 in the Classification Data section and return the questionnaire.

2. How much of each issue of Dairy Update magazine do you usually read? (Check one.)
   1. Never read any of the magazine
   2. Just skim through it
   3. Read one article
   4. Read most articles
   5. Read it from cover to cover

   If you checked “never read”, please indicate the main reason for not reading the Dairy Update magazine.
   1. Lack of time
   2. Not interested in subject
   3. Difficulty in understanding articles
   4. Issue arrives at planting, harvest, or other inconvenient time
   5. Other. Please explain.

3. After receiving your Dairy Update magazine, when do you read it? (Check one.)
   1. Right away
   2. Within a day or two
   3. Within a week
   4. Longer than a week

4. How many people in your farming or ranching operation, other than yourself, also read your issue of Dairy Update magazine? (Check one.)
   1. None
   2. 1
   3. 2
   4. 3
   5. 5 or more
5. Your last issue of Dairy Update was labeled Volume 8, Number 2, Winter 1989. The cover featured a snow-covered pasture with a dairy farm in the background. Please indicate to what extent the articles were interesting to you personally, by circling the number best representing your feelings. If you did not read an article, please check extreme left-hand column.

<table>
<thead>
<tr>
<th>Did not Read</th>
<th>Not at all Interesting</th>
<th>Very Interesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karl Butzer commentary</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Darwin Britzman article on animal rights</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Curt Schafer article on winter dysentery</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Al Miron article on dairy NRC</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Feature article on Joel Hanson dairy</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Feature article on Hutterites</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

6. Which three of these possible Dairy Update magazine articles would you read based on interest to you? (Check three that apply.)

1. Bovine somatotropin increases production, reduces costs
2. Carbonated milk products offer consumers an alternative
3. Update on computer feeding on the dairy farm
4. Teat dips - what to look for when buying
5. Impact of genetic improvements on your herd
6. Dairy industry faces diet-health issue
7. Using DHIA records to your advantage
8. Do buffers have a place in your dairy ration

7. What other publication do you read regularly? (Check all that apply.)

1. U.S. News and World Report
2. Newsweek
3. Successful Farming
4. National Hog Farmer
5. Hoards Diaryman
6. Farmer Stockman
7. Feedlot Management
8. Pork
9. Farm Journal
10. Drovers Journal
11. Others. Please list.

8. From the publications checked in question 7, enter the numbers of the two magazines that you find most valuable in making business decisions:

1. 
2. 

9. Please indicate how helpful each of these sources of livestock nutrition, health and management information are to you. (Circle your response.)

<table>
<thead>
<tr>
<th>Not at all helpful</th>
<th>Rarely helpful</th>
<th>No opinion</th>
<th>Usually helpful</th>
<th>Always helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local feed dealer 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Elevator manager 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>County agent 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Veterinarian 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Feed company representatives 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Feed company publications 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Farm magazines 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other farmers/ranchers 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other. Please list. 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
10. Please indicate how strongly you agree or disagree with each statement below by circling the number that best represents your feelings.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree nor Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dairy Update does a good job of presenting livestock production information</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Dairy Update is concerned about issues important to livestock producers</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Information presented in the Dairy Update is presented in an accurate and believable manner</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Dairy Update is well organized and easy to understand</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Dairy Update has provided me with information useful to me in my operation</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Dairy Update has a good mix of articles in different areas of livestock production</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Dairy Update does not have enough information on specific GTA Feeds products and services</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>The Dairy Update provides me with information I have not read in other publications</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>If I would not receive an issue of Dairy Update, I would miss it</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Overall, I believe the Dairy Update is a quality publication</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

11. Have you ever contacted your feed dealer or feed consultant for information as a result of an article seen in the Dairy Update magazine?
   - [ ] Yes
   - [ ] No

12. What, if anything, do you particularly like about the Dairy Update magazine?
   1. 
   2. 

13. What, if anything, do you particularly dislike about the Dairy Update magazine?
   1. 
   2. 

14. Do you wish to continue receiving the Dairy Update?
   - [ ] Yes
   - [ ] No
CLASSIFICATION DATA

Please answer the following questions about the owner or senior partner in your farming operation. Your responses will be confidential and used only to construct a profile of our readership.

1. Do you currently own or operate a dairy farm?
   1. Yes
   2. No

2. If you answered "No" to question one, what is your current occupation?

3. Are you:
   1. Male
   2. Female

4. Your age:
   1. Under 25
   2. 25 to 34
   3. 35 to 44
   4. 45 to 54
   5. 55 to 64
   6. 65 or older

5. What is the highest level of education you have completed? (Please check one.)
   1. Less than high school
   2. High school graduate
   3. Some college or technical training
   4. Two-year college degree
   5. Four-year college or university degree
   6. Post-graduate studies

6. Which categories of livestock are currently being raised on your farm? (Check all that apply.)
   1. Beef cow/calf
   2. Beef/Dairy beef feedlot
   3. Dairy cattle
   4. Hogs
   5. Poultry
   6. Sheep
   7. Other. Please specify

7. How many milk cows and heifers do you currently have on your farm? (Check one.)
   1. None
   2. Under 15
   3. 16 to 35
   4. 36 to 50
   5. 51 to 75
   6. 76 to 100
   7. 101 to 150
   8. 151 or more

8. How many total owned, leased or deeded acres are you farming/ranching in 1989? (Check one in each category.)
   Crop land: 20
   1. Under 99 acres
   2. 100 to 249
   3. 250 to 499
   4. 500 to 999
   5. Over 1,000

   Pasture land: 20
   1. Under 99 acres
   2. 100 to 249
   3. 250 to 499
   4. 500 to 999
   5. Over 1,000
9. Are you currently using GTA Feeds products?
   1. Yes
   2. No

10. In the past year, how many feed companies have you purchased feed products from?
    ___ (Number)

11. Do you regularly receive informational magazines, newsletters, pamphlets or newspapers from other feed companies through the mail?
    1. Yes
    2. No

12. In the past two months, approximately how many different feed sales representatives have made personal calls on your operation?
    ___ (Number of calls)

13. Could you give us a rough idea of your farm's TOTAL GROSS FARM INCOME in 1988? (Check one.)
    1. under $10,000
    2. $10,000 to $19,999
    3. $20,000 to $39,999
    4. $40,000 to $59,999
    5. $60,000 to $99,999
    6. over $100,000

14. How long has the owner or senior partner in your operation been involved in farming, ranching, livestock or dairy production?
    1. Less than 5 years
    2. 5 to 9 years
    3. 10 to 19 years
    4. 20 to 29 years
    5. 30 to 39 years
    6. 40 to 49 years
    7. 50 years or more

15. Which of the states listed below is your state of legal residence? (Check one.)
    1. Wisconsin
    2. South Dakota
    3. Iowa
    4. Idaho
    5. Minnesota
    6. North Dakota
    7. Nebraska
    8. Montana

NOW ... please check and make sure you have answered all the questions

THANK YOU FOR YOUR HELP
Please mail your completed questionnaire and premium redemption card back to us today and receive your FREE 10-foot measure!
Premium Redemption Card

The information you provide below will be separated from the questionnaire upon receipt. Your responses will be confidential.

Your FREE tape measure will be sent to the address below:

(Please Print)

Name ___________________________
Street/R.R./Box ___________________
City ___________________ State ______ Zip ______

Please insert into postage-paid envelope along with the completed questionnaire.

Thanks again for your cooperation!
Dear Dairy Update Reader:

Recently we mailed you a magazine survey questionnaire asking for your help in "measuring" the GTA Feeds Dairy Update magazine through a readership survey.

If you have already returned the questionnaire, please consider this card a "Thank You" for your participation.

If you have not had a chance to do so as yet, please don't miss out on the FREE 10-foot tape measure you'll receive for returning the completed questionnaire. Your cooperation is essential to the validity of the study.

Sincerely,

Stephen Simons
GTA Feeds
Animal rights
And livestock production

Winter dysentery

New NRC changes
And dairy feeding requirements

Producer Feature:
Farming and dairying
On only seven acres
BY KARL BUTZER
GROUP VICE PRESIDENT
HARVEST STATES COOPERATIVES
GENERAL MANAGER
FARM SUPPLY

Dairying: an everchanging challenge

The new year greeted dairy farmers with good news — an announcement by Secretary of Agriculture Lyng that there would be no cut in the dairy price support.

The price support level will remain at $10.60 except for the months of April, May and June when it will rise to $11.10.

This good news must be tempered with caution. Experts predict that production will again exceed consumption, dairy surpluses will grow and prices head back down. At the same time, Congress will be addressing the deficit and working on the 1990 Farm Bill.

The challenges facing the dairy industry are many, and were outlined by Eugene Meyer at the National Milk Producers Federation Convention in early December. As listed in the Federation's newsletter, they are:

1. As efficient as our industry is, less than 50 percent of the nation's dairy cows are on a production test program.
2. Only 70 percent of the nation's dairy herds use artificial breeding, and only 60 percent of new dairy calves are from artificial insemination.

Continued on Page Five
Animal Rights and Livestock Production

BY DARWIN G. BRITZMAN, Ph.D.
DIRECTOR OF ANIMAL NUTRITION,
RESEARCH, AND
MANAGEMENT SERVICES

The animal rights movement threatens the future of the livestock industry in the United States. This movement is not new, but since coming from Europe it has become more prevalent in the U.S.

Animal rightists originally concerned themselves with the use of animals in research. Today, they are increasing attacks on agricultural livestock production. There are as many as 400 well-financed organizations involved in the movement today.

Several organizations have been formed to monitor and counter the efforts of the animal rights movement. However, the entire livestock industry and those associated with it must become concerned.

Animal welfare or animal rights?

Animal welfare and animal rights are two terms that are often used synonymously. However, they are very different.

All livestock producers should be concerned with animal welfare. Without concern for the well-being of their animals they could not be successful. That is animal welfare.

For the most part, animal rightists feel that animals have the same rights as humans. Many people feel that television and movie characterization of animals with human characteristics has contributed to that feeling.

Hidden behind the animal agenda, the ultimate goal of many animal rights activists is vegetarianism. On the production end they have targeted tethered sows, cage layers and caged veal.

Veal has been a popular target because it is not a common item in the average American diet. This makes it easier to attack.

Coming on the American scene

Animal rights activities had their roots in Europe and the movement is far more advanced there. Like clothing fashions, they have migrated west to the United States.

In Europe there have been wholesale restrictions and abolition of certain animal production techniques.

For example, West Germany has passed restrictions on laboratory animal use. Battery cages are essentially not used in northern Europe. A recent law passed in Sweden requires that cows be allowed access to pasture once every 24 hours.

The original emphasis in Europe was on the use of animals for research in laboratory activities. The movement has shifted to include agricultural production of livestock. Restrictions on hormone use is one example.

The movement in the U.S. is five to seven years behind Europe. Original efforts in the U.S. were also directed toward the laboratory use of animals. However, in the late seventies they turned their attention to farm animals.

In the early eighties the first group dedicated exclusively to farm animal abuse surfaced. During the last eight years the anti-farming segment has really become an independent entity.

Continued on Next Page
How extensive is the movement? Large, at least if you believe the publicity put out by the animal rights groups. They say there are 400 animal rights groups in the U.S. today with a combined annual budget of about $200 million.

If that is true, they are probably ten times larger than all the national agricultural organizations combined. Furthermore, agriculture is very segmented because of all of the diverse interests.

According to an article in "Rolling Stone" magazine, 100

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animal rights groups have been formed since 1982. They also report that the number of animal rights members has increased five-fold to ten million since 1984.

How they operate

As one might expect, the philosophies of the animal rights groups vary from moderate to extreme. The extremists operate by damaging properties and threatening producers. The impact of the movement is beyond most people's imagination.

These animal rights groups have been classified by media as a "mainstream grassroots political movement."

An independent survey of members of the 100th Congress indicated that mail about protection of animals generated the third most constituent mail. First and second were concerns over the deficit and the affordability of Medicare and Medicaid, respectively.

Charles Stenholm, D-Texas, chairman of the House subcommittee on Livestock, Dairy and Poultry, has received up to 7,500 letters per week on the subject of animal rights.

What is it that animal rightists do not like about livestock production? Some of the issues are:

- Confinement.
- Surgical procedures — including castration, dehorning, tail docking, branding, ear notching, teeth clipping, feet trimming, etc.
- The use of drugs and synthetic chemicals in feeds or in prophylactic use except to treat sick animals.
- Auction markets or dealers.
- Public land grazing.
- Lack of rest and relaxation in animal transport.
- The application of biotechnology to animal production.
- Farming or ranching.

Aside from the three targeted production areas, they also find other animal production objectionable.

Some activists claim the cattle industry is responsible for pollution of the water table through feedlot and ranch runoff, destruction of topsoil from over-grazing, and a negative balance of trade in timber because forests have been cut down to increase public lands grazing.

Poultry producers are being accused of using tons of antibiotic laced feeds to produce their birds. Dairy producers have been accused of milking cows 24 hours a day, ripping calves from their parents, and of course, the poisoning of America through widespread use of drugs to increase milk production.

The mode of action of animal rights groups is varied. They exploit the media through negative stories relying on emotions and propaganda. They tie food safety scare tactics to cruelty to farm animals, implying that farmers and ranchers poison their animals as production techniques.

They also infiltrate legitimate consumer groups with the objective of getting animal rights messages into organization agendas.

They are often radical in their approach using violence and civil disobedience. Sit-ins and picketing are very common approaches. There is an increasing incidence of criminal activities and violence.

Following are some examples.

- On Thanksgiving Day 1986, two contract broiler growers for Foster Farms in Modesto, California, were broken into
at night. Cars, trucks and equipment were destroyed or disabled while water lines were cut and birds stolen.

The Animal Liberation Front (ALF) claimed credit for this activity. The activists actually cut the heat and water lines to the house of young birds. Had this not been discovered the birds would have died from cold temperature and a lack of drinking water.

- In June of 1987, ALF broke into a Biomedical Research Building which had just been completed for the University of California at Davis. This facility had been constructed to house all University of California services for biomedical and agriculture-veterinary animal use.
- In the fall of 1987, the self-titled group called “Band of Mercy” broke into the U.S.D.A. Research Farm at Beltsville, Maryland. Seven minnie pigs which were being kept for a research project and 27 cats being used in experimental work

For the most part, animal rightists feel that animals have the same

ights on Toxoplasmosis were taken.

The activists indicated they would find veterinarians to cure the cats and give them good homes. However, they did not realize there is no cure for Toxoplasmosis. The Washington, D.C., area was put under a health alert because Toxoplasmosis is a serious threat to pregnant women and individuals with immune system deficiencies.

Butzer
Continued from Page Two
just 25 percent of the dairy heifers are bred artificially.
3. Federal standards for fluid milk are disgracefully low.
4. We should move quickly to component pricing in more than just one federal order. We've dilly-dallied on this issue too long.
5. Dairy farmers are supporting two national organizations. That's a waste of dairy farmers' hard-earned money.
6. The public image of the dairy industry must be improved. Somehow, we have to convince the public that dairy farmers are not a bunch of fat cats eating out of the public trough.

And isn't it ironic that we constantly have to defend the use of milk in the human diet — nature's most nearly perfect food.
7. With so much competition for milk around the country today, and the M-W price approaching $12.00, some believe this will continue indefinitely.

Don't be lulled into complacency. Even with the worst drought in history last summer, production has been increasing for the past four consecutive months.

If we don't manage our supply, we will be faced with lower and lower prices. We're in the best position today we've been for some time to prevent that from happening. But as so often happens, dairy farmers fail to act until the situation becomes critical.

8. Finally, I'm sorry to report that I see more regionalism in policy deliberations today than at any time in history. Every congressman we've heard during the past several National Milk Conventions has warned that we must have a consensus. You can't have one section of the country fighting another section.

It will require strong leadership to resolve this problem, but it must be done.

Many of the challenges that Meyer, retiring managing editor of Hoards Dairyman, outlined are not new and they will not go away.

In this issue Dr. Darwin Britzman writes about animal welfare, another challenge facing the dairy industry. Animal welfare, along with food safety, bovine somatotropin, government policy, consumer demands, trade and milk markets and pollution, are all challenges that the industry is addressing as it prepares for the future.

Add these to the industry challenges outlined by Meyer and dairying in the 1990s will be challenging, exciting and anything but boring.

The price support level will remain at $10.60 except for the months of April, May and June...
During my years in private practice the one disease that had me handcuffed was winter dysentery. The disease usually affects dairy cows in their first or second lactation. When it appeared, it had no pattern in neighboring farms. Area herds would not suffer from the disease at the same time or during the same year.

It was also apparent that older cows had developed an immunity to the condition from previous battles with the disease. Therefore, farms may see the disease every two to three years. The young calves would not seem to be affected because they may have been carrying passive immunity from the colostrum milk.

Winter dysentery is usually observed from November to April in northern states and primarily among animals housed indoors. Stresses, such as cold weather, overcrowding, or a feed or housing change, may bring on the symptoms. I believed it was mainly a weather change that was responsible for the problem.

The exact etiological cause of the condition was undetermined for many years, but now has been related to a Campylobacter organism.

The clinical signs of winter dysentery are a profuse, watery diarrhea with a foul odor. Animal body temperature may rise, but usually remains normal.

Appetite will remain normal, but may be slightly depressed.

The major effect of winter dysentery is a severe drop in milk production resulting in loss of income to the dairyman. It is not uncommon for the whole herd to drop 40 percent or more of their milk production.

After the condition subsides, it will take two to three weeks to regain most of their previous production. Unfortunately, many of the animals will not come back all the way.

Most cattle will recover from the infection within a few days without treatment. In order to speed up recovery, I suggest removing all corn silage and three-fourths of the grain mix and feeding a poor quality hay. When animals appear to have recovered, slowly add the silage and grain back into the diet.

Severely dehydrated animals should receive electrolytes to prevent further fluid loss. Astringent boluses can be administered for two to three days to control the diarrhea.

Antibacterial compounds such as neomycin, furacin and terramycin may be administered orally to severely affected animals. Normally, the infected animals will make an uneventful recovery with no therapy. In this case, no milk needs to be discarded.

Remember, if the diarrhea persists for longer than two to three days and becomes blood tinged or contains mucous and blood clots, the diagnosis should be reconsidered.

Consult with your local veterinarian to help make a differential diagnosis between winter dysentery, bovine viral diarrhea, parasites, salmonella, Johne’s disease or coccidiosis.

Treating animals for the wrong disease results in loss of production, loss of time, additional medicine costs and possibly loss of an animal. A positive diagnosis is a must.

In conclusion, there is no vaccine available for winter dysentery. This makes controlling traffic in and out of your barn important.

If feed people, veterinarians, AI technicians or neighbors enter your barn, disinfect footwear before entering the area where the animals are housed. If you have an infected barn, it is common courtesy to inform these outsiders before entering the barn.
Hutterite Colonies —

Maintaining their heritage
In a modern world

BY KATHY BLANKARTZ STEECE
ASSISTANT UPDATE EDITOR

Hutterite Colonies are sprinkled throughout the Dakotas, Montana, the Canadian provinces and several other states. But who are the Hutterian Brethren who choose a life so different from that of their neighbors?

A WAY OF LIFE

The Hutterian philosophy of communal living is rooted in scripture, Acts 2:44: "And all who believed were together and had all things in common." Because they chose to lead lives separate from the world, their history is one of a continual journey to find peace and acceptance.

The Hutterian Brethren are a branch of the Anabaptist movement which began in Switzerland in 1525 during the Reformation. "Anabaptist" means "rebaptizers," a name they were given because their followers, who had been baptized as infants, were rebaptized as adults upon the belief that baptism was only to be given to those who made a personal commitment to Christ.

In 1528, a movement toward total communal ownership of property began among the Moravian Anabaptists. It was about this time when a hat-maker, Jacob Hutter, was attracted to the Anabaptist faith. In 1529, he became an Anabaptist preacher strongly committed to the idea of communal living, and he was soon recognized as both an evangelist and a leader who could unite fragmented groups of believers.

The beliefs of these people differed from many of the more predominant Christian churches or "state" religions. Because of their non-violent stance forbidding military service or payment of war taxes, members of the Anabaptist movement were victims of persecution. Hutter himself was taken prisoner by the government in 1535. After months of torture during which he refused to incriminate others or recant his faith, Hutter was burned at the stake on February 25, 1536. Because of his faith and conviction, the Moravian groups took his name and became known as Hutterian Brethren or Hutterites.

THE GOLDEN PERIOD

Despite persecution, there were periods of time that allowed the Hutterites unhindered development. The years 1554-1565 are known as the "good" years and 1565-1592 as the Golden Period.

During this time, Hutterites were able to develop more elaborate Bruderhofs, or colonies. Besides being engaged in agriculture, members were also skilled craftsmen. They developed an educational system and medical practices that were superior to those of most of Europe.

A chronicle of the group's history also began during this time: The great Geschicht-Buch (History Chronicle).
A chronicle of Hutterite history began during the “Golden Period.” The great Geschicht-Buch (History Chronicle) was later recopied and carried on by other writers until the year 1665. Today, that book resides in the Bon Homme Colony in southeastern South Dakota.

This was later recopied and carried on by other writers until the year 1665. Today, that book resides in the Bon Homme Colony in southeastern South Dakota.

ON THE MOVE AGAIN

When persecutions began again, Hutterites were driven from country to country. Believing that Russia offered them religious freedom along with land to farm, they moved to the Ukraine in 1770.

While in Russia, the Hutterites developed a close association with the Mennonites, who assisted them during difficult times. During a particularly hard time, the Hutterites abandoned the practice of communal living. One of the leaders in the renewal of communal living in 1859 (after a 40-year abandonment) was a blacksmith, Michael Waldner, and his group of followers and their descendants are called Schmiedeleut (German for blacksmith’s people). Another group, followers of Darius Walter, are called Dariusleut (Darius’ people).

The Hutterites lived in Russia for about 100 years. Then, government policy changed threatening special privileges enjoyed by Hutterites, such as exemption from military service and complete control over the education of their children.

With another resettlement inevitable, Hutterite delegates ventured to the United States and met with President Grant in 1873. Although an exemption from military service was not guaranteed, virtually all Hutterites, including those living communally and those who lived on individual farms, left Russia for America.

THE MIGRATION TO AMERICA

In 1874, the Schmiedeleut led the move from Russia to the United States. After surveying various tracts of land, they settled in Bon Homme County on the Missouri River in southeastern South Dakota founding Bon Homme Colony. They bought 2,500 acres of land for $25,000, and the colony is considered the “mother” of all Schmiedeleut colonies.

The Dariusleut spent their first winter at Silver Lake in South Dakota establishing their first colony at Wolf Creek in 1875, about 40 miles north of Bon Homme. Joining the Schmiedeleut and Dariusleut, was another group led by Jacob Wipf, a teacher. They are called “Lehrerleut,” German for teacher’s people. They established the Elm Springs Colony a few miles west of Wolf Creek.

Hutterites who chose not to live communally settled on individual homesteads and are called “Prairieleut” or prairie people. Many of these became associated with Mennonite congregations.

The total number of Hutterites coming to America was about 1,200. About 400 settled in colonies, the rest chose to homestead individually. From their three original colonies, Hutterites have branched to about 300 colonies in South Dakota, North Dakota, Montana, Minnesota, Washington and in the Canadian provinces of Alberta, Manitoba, Saskatchewan and British Columbia. A few colonies also exist in the eastern United States.

COLONY LIFE TODAY

The main economic base of the colonies today is agriculture. At some colonies, manufacturing operations have developed, for example, furniture-making, feed production, flour milling and others, but these have remained limited.

The colony is governed by a board of elders, who are chosen by colony members, along with the preacher, the general manager, who manages the day-to-day operation of the colony, and the farm manager. To decide issues of major importance, a vote of the men of the colony will be taken. Managers are also assigned by vote to lead the various farming operations of

This modern communal dining hall is part of the Rockport Colony, also located in southeastern South Dakota.
The colony. But it is the preacher who sets the tone for the colony's lifestyle. Efforts are made to allow young men and women from various colonies to meet each other. When they marry, the woman moves to her husband’s colony. There she will maintain their home, similar to an apartment, in a communal dwelling. However, cooking and dining takes place in a common dining hall. Women from the ages of 17-45 take turns with kitchen duties, and work together in a large community garden.

The colonies are an interesting blend of old and new. For example, at Bon Homme Colony, the oldest colony in the United States, original chalk-stone buildings have been modernized with indoor plumbing. Original structures continue to be useful with modernization when necessary, yet beside them stand modern livestock production facilities, as well as commercial kitchen and laundry equipment.

In the traditional way, the education of children begins at an early age. At about 2½ years of age, children begin “German school” where they learn the basics of colony life including the German language. German school continues even after the children begin the required public school curriculum meeting one hour before and after the regular school day.

The German teacher is selected from among colony members; the “English” school teacher, who teaches the elementary public school curriculum on the colony grounds in a one-room school setting, is generally a teacher from outside the colony. However, some colonies today are allowing a few of their young people to attend college and attain teacher certification. In general, schooling ends after age 15 when children are considered adults and join the colony work force.

Religious services are an important part of colony life; they are held each evening as well as on Sunday. Although no musical instruments are used, Hutterites enjoy singing as part of their worship.

On the average, a colony has about 120-140 residents. When it grows large enough to form a new colony, the division generally takes place by drawing names.

A perennial challenge faced by colonies is individualism. It’s difficult for an individual to choose a way of life in which one owns nothing and all are considered equal. Those who choose to leave the colony are allowed to return for visits or return to stay if they so desire. As one colony member said with regard to rearing children, “Like any parents, there are some places where we would rather our children didn’t go. But you can’t hold them back; you have to let them see what the world is like.”

With the world so tempting, why do Hutterites choose their way? The book, God’s Salvation Plan, explains the Hutterian way of life in these words: “We believe and claim that community of goods is the ultimate form of Christian love, because it is impossible to live communally as Christians without love. We know a communal society can function on a purely economic basis in a democratic society, but records prove that communal attempts without a religious foundation have almost a 100% failure rate . . . . We believe that communal life is necessary for salvation . . . . "If there is no private property in heaven, there should be none among God’s people here on earth.”

(Sources: The History of the Hutterites, by John Hofer; God’s Salvation Plan; and A Century of God’s Blessings: A History of the Neu Hutterbaler Mennonite Church, Bridgewater, SD.)
THE
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OUR BUSINESS IS BUILDING SATISFIED CUSTOMERS...

GREAT PLAINS
A HARVEST STATES COMPANY
How do new NRC guidelines change dairy feeding programs?

BY AL MIRON, Ph.D.  
RUMINANT SPECIALIST

During the past few months the National Research Council's 1988 edition of Nutrient Requirements of Dairy Cattle has been in the news. In this section of Dairy Update we'll review the latest requirements and impact they will have on dairy cattle nutrition.

The publication of new recommendations should not be construed to mean that nutrient needs for given levels of milk production have changed. Instead, additional research information has changed our knowledge and understanding of those needs.

This knowledge should allow us to better and more economically provide nutrients for given levels of production.

The 157-page 1988 edition and accompanying computer software are indications of the complexity of dairy nutrition. Although the tables in the publication prove useful, it is also important to understand the text and practical applications of the NRC recommendations.

Looking at the last four dairy NRC editions, some of the changes in nutrient recommendations seem to reflect a change from publishing minimum requirements to recommendations for more practical feeding situations.

A more detailed look at individual nutrient recommendations for feed intake, protein, minerals and vitamins follows.

Feed Intake

One of the more dramatic changes in the current issue is reflected in estimates of feed intake.

The 1978 edition was the first to estimate dry matter intake of dairy cattle. These estimates were generally considered low by those of us who were formulating rations. The 1988 recommendations recognize this and estimates of feed intake are about 10 percent higher than in the 1978 edition.

The latest publication also recognizes that milk production generally peaks 4 to 8 weeks after calving while feed intake peaks between 10 and 14 weeks after calving. During this early lactation period the animal generally loses body weight and, therefore, the nutrient density of the diet must be increased.

If accurate feeding records are kept, further refinements in feed intake should be made based on actual on-farm feed intake.

Protein

Old NRC recommendations were for diet protein to be in the range of 13 to 16 percent, depending on level of production.

The new recommendations are in the range of 12 to 18 percent, with a further increase to 19 percent in early lactation when feed intake is reduced.

For the most part protein recommendations have stayed about the same. The exception is an increase for higher levels of production which was not addressed in the previous edition.

At GTA Feeds, these increased needs had already been taken into consideration in our computerized ration formulation work.

One of the more dramatic changes in protein nutrition has been to include
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suggestions for rumen degradable and rumen undegradable (bypass) protein. The recommendations are for slightly less total protein when the diet is properly balanced for degradability. The values presented are recognized as only starting point and are already being challenged in current research.

Minerals

Higher levels of calcium top the new NRC recommendations for minerals. This suggestion is based on recent research showing reduced availability of calcium in certain feedstuffs — especially alfalfa hay.

Since alfalfa hay contains large amounts of calcium, dairy diets are generally over-formulated in this nutrient even when recent increases in recommendations are considered.

Ration recommendations for phosphorus have remained approximately the same. On the other hand, recommendations for potassium in the diet have increased. Once again, diets containing normal amounts of roughage such as alfalfa hay and corn silage generally provide sufficient potassium.

Vitamins

Vitamin A recommendations have remained essentially the same as in the 1978 NRC edition.

Recommended levels of Vitamin D have more than doubled and a recommendation for 7 units of Vitamin E per pound of ration has been included. These recommendations are for the total ration taking into consideration what is naturally provided.

The new suggestions should not require changes in the formulation of practical diets since most rations currently contain considerable overages.

Summary

Changes in the 1988 NRC publication reflect recent advances in dairy nutrition research. The new recommendations contain no great surprises but do show dairymen areas where their programs may need to be updated.
Farming and dairying
On only seven acres

BY STEPHEN SIMONS
UPDATE EDITOR

Ask Joel or Linda Hanson about their farming or dairying operations and their faces light up with enthusiasm.

“We’re excited about farming,” Joel explained. “It’s hard work and it’s challenging, but it’s a great life.”

The Hansons have spent the past 14 years farming and dairying north of Valley Springs, South Dakota. Joel, 34, and Linda, 35, enjoy farming and their life on the farm with their daughters Shauna and Kylie.

The duo got their start in agriculture working with Joel’s parents Robert and Alice. That relationship grew into a five-year partnership before Robert’s retirement in 1984 left Joel and Linda to control their own destiny.

The Hansons have been successful on the farm, and what separates them from other farmers and dairymen is how they have accomplished it. They have made a livelihood farming 800 acres and milking 30 cows while owning only machinery and the seven-acre acreage where they live.

They are in the process of purchasing the dairy herd from his father and rent or contract farm the 800 acres for others.

The combination has worked well for them. “Grain farming is a gamble and the land is available to be farmed without investing in farmland,” Joel explained. “On the other hand, the dairy operation gives us the diversity and cash flow we need.”

“Farming is too much work to not be making money at it.”

Joel Hanson

Successful dairying

The size of the Grade A Holstein herd has remained around 30 cows since the mid-1950s when Robert began dairying. What has changed has been the number of calves surviving and increasing profits to the operation.

The monthly milk check provides cash flow, but the saved calves are icing on the cake, according to Joel.

The Hansons try to keep about 100 animals on the farm. This usually includes about 20 heifers, 30 steers on feed, the 30-cow milking herd and the remainder in calves.

Linda is proud of her success with calves and in the past three years she hasn’t lost a calf. The extra effort she puts into caring for the calves has almost totally eliminated calf deaths and the 35 to 45 steer or heifer calves raised each year have become very profitable.

Her program begins with calves getting colostrum milk, or being force-fed milk through a tube, immediately upon birth. Special cases call for the use of GTA milk replacer. Calves are then housed in poly domes for two months (150 to 175 pounds) before going to the calf feeding yard.

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"Watching calves carefully is important. You can tell a lot by looking into their eyes," Linda said. "It's a lot of work to save a calf sometimes, but it's satisfying when a calf that might not have made it grows up healthy."

In the poly domes, calves receive four pints of milk twice daily along with fresh water and GTA Feeds Dari Kalf Glow with decoquinate. In the feeding yard, calves receive free-choice quality alfalfa hay, rolled corn, oats and GTA Feeds Dari Kalf Grower until about 400 pounds.

Steers are then fed rolled corn and GTA Feeds Beef Finisher with Bovatec. Steers are fed to about 1,350 and marketed.

Heifers are moved to rented pasture from May to November, bred to a registered Holstein bull at about 16 months and sold at about 26 months.

In the stanchion dairy barn, cows in production receive a ration designed around Joel's specifications by GTA feed consultant Jon Peterson and Valley Springs Farmers Elevator manager Paul Edmundson.

The ration consists of twice daily feedings of ground ear corn top dressed with Dari Milk Producer and GTA Range Mineral. Cows are also turned out to dry lot each day receiving free-choice alfalfa hay.

Success in farming

Along with their dairy records, they keep extensive production records on their cropland. Corn averaged 120 and 125 bushels per acre during 1986 and 1987, respectively. During the drought of 1988, they averaged 60.5 bushels per acre.

While the Hansons haven't missed a milking in three years, being active is important to Joel and Linda. They credit much of their success to the fact that they work together well. They are active in their church and Joel is in his third term on the board of the Valley Springs Farmers Elevator.

While the Hansons are proud of their operation, they are most proud of the way they balance work, marriage, children and profitable farming and dairying operations.

The grain farming and dairying combination has been good to the Hanson family financially. As Joel concluded with a smile, "Farming is too much work to not be making money at it."
Calves are housed in these poly dome huts for two months (to about 150-175 pounds) before going to the calf feeding yard.

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What course of action must animal agriculture take to attend with animal rights' activities? First, all those involved in and associated with animal agriculture must be aware that the animal rights movement is a serious threat. Second, continued consumer education is a must. Consumers must be made aware that the meat, milk and eggs they purchase are the finest produced anywhere in the world. Third, research must be conducted to demonstrate that stock currently produced are not being mistreated. New methods of handling livestock including the buildings, equipment and other facilities must be concerned with the comfort of animals. Fourth, all involved in agriculture production, directly or indirectly, must monitor the activities of animal rights groups. Fifth, the livestock industry needs to police itself. Occasional news carries a story about a producer who has mistreated his animals in some way. That publicity is extremely damaging.

Sixth, industries associated with livestock must be ready and willing to react should referendums such as the one in Massachusetts come before any legislative group or the public.

Seventh, animal rightsists should not be given platforms by any organizations associated with livestock to publicize their goals and activities.

Battling misinformation

There are several organizations now which have been formed to counter the animal rights activity. One of these is the Farm Welfare Coalition in Washington, D.C. It was formed in 1981 and has in its membership 35 national agricultural organizations.

Also, located in Washington, D.C., is the Animal Industry Foundation (AIF). It was formed in 1986 by the American Feed Industry Association to fund research and create educational materials for producer groups in the consumer education battle.

AIF concerns itself primarily with consumer education. AIF has created a pamphlet and video entitled “Animal Agriculture Myths & Facts” which takes the most commonly heard allegations about livestock and poultry production and counters them with the facts of modern farming and ranching. We must all realize that the animal rights movement is for real. It is not new; it has been on-going for a number of years. However, its dealing with agricultural utilization of farm animals seems to be intensifying.

It is important that all segments associated with and allied to the production of livestock in the U.S. be aware of and concerned about this movement.
HILDEGÄRD HOLSTEIN
HOME: Farm, Upper Midwest
AGE: 8 years
WEIGHT: (A lady never tells!)
OCCUPATION: Lead cow, 60 milker herd
HOBBIES: Seeing how many cows can fit through the barn door at the same time.
LAST BOOK READ: Dairy Guide, GTA Feeds

LATEST ACCOMPLISHMENT:
Led herd with average of 25,000 pounds milk and 945 pounds butterfat in 305 days.

WHY I DO WHAT I DO: "To continue the legacy of my maternal forebears as a top producer."

PET PEEVE: Cold hands.

QUOTE: "Optimum production is the result of good nutrition, good management, and good breeding."

PROFILE: Excellent conformation, pleasant demeanor, a bit bossy.

HER FEED: GTA Dairy Ration
GTA Feeds provides the full range of services and product flexibility your livestock need to accomplish all the goals...and yours.

Make Your Move To Gain Control