This is a supplement to the December, 1999 and January, 2000 issues of ADSA Today. It includes information updates on ADSA matters, as well as recent news and grant postings. The next complete issue of ADSA Today is due to be published in March.

**New Publications Released by ADSA**

The first two books in the ADSA Scientific Reader Series were published in late January and early February. The ADSA Scientific Reader Series was created to serve groups of farmers, extension specialists, producers, processors, scientists in related fields, and food industry professionals who are interested in the latest scientific research related to a particular topic. Each book in the series consists of reprints of peer-reviewed scientific reports that originally appeared in the *Journal of Dairy Science*; for those who prefer electronic access, the articles are also available at a password-protected web site.

The first book in the series, *Dairy Management Practices, Housing, and Cattle Health*, was originally created to correspond to the program at the 2000 NRAES ADairy Housing and Equipment Systems: Managing and Planning for Profitability@ Conference, it should prove helpful to dairy professionals for many years to come. The book includes five major sections:

- **Housing and Facility Planning** includes scientific reports on practical matters like planning the milking center, feed bunk length requirements, bedding, cattle restraints, and competition at the feeding station.
- **Management Practices, Nutritional Strategies and Dairy Cattle Health** includes information on nutrient management, mastitis, weight gain, computerized feeders, and animal grouping strategies.
- **Manure Management** features a systems approach to manure management, a discussion of manure spreading strategies, and a summary of a study using human panelists to assess the effectiveness of anaerobic digestion and feed additives in reducing manure odor.
- **Seasonal Factors and Management Strategies** this section looks at nutritional strategies for managing heat stress, strategies for managing reproduction in the heat-stressed cow, and winter farm management strategies.
- **Profitability and Dairy Management Systems** the final section looks at dairy expansion plans, the profitability of moderate intensive grazing in the Northeast, characteristics of
dairy farms that significantly increased production, and comparisons of the profitability of dairy farms in various locations that employed different grazing strategies.

The second book in the series, *Mastitis Control and Milk Quality*, was designed to interest registrants at the 2000 National Mastitis Council Annual Meeting, and will be a helpful reference aid for anyone interested in preventing or controlling mastitis. The book includes six major sections:

- **Economics of Mastitis** Recent research has found that mastitis can affect reproductive performance in dairy cows. This chapter contains results of studies in this area as well as the affects of mastitis on milk yield, somatic cell count and removal of cows from the herd. Other matters covered include BST and mastitis and a partial budget of the benefits of mastitis control strategies.
- **Defining the Mastitis Problem** Includes scientific reports on methods to assess the bacteriological cure of mastitis and on the use of somatic cell counts to determine uninfected quarters.
- **Knowing the Enemy** Mastitis can be a problem in first calf heifers. Reports in this section look at bacteria associated with clinical mastitis in heifers and clinical mastitis caused by *Escherichia coli* in cows.
- **Milk Quality** Scientific papers in this section look at the effects of somatic cell count in milk on yield and quality of cottage cheese and the affects of subclinical mastitis on the protein fraction of milk. There is a report on the influence of parity and stage of lactation on somatic cell count in bacteriologically negative cows. The Delvotest was used in the detection of antimicrobial substances in cow and quarter milk samples.
- **Mastitis Prevention** Vaccines for mastitis have been a focus of many researchers in recent years. Six studies on vaccines are reported in this chapter. Several papers look at management and its influence on mastitis and somatic cell count. The effects of several milking machine factors on milk yield, teat condition and udder health are also reported.
- **Mastitis Therapy** This chapter looks at the efficacy of various treatments on mastitis pathogens in dairy cows. One study looks at the outcome of lactation therapy on dairy heifers. In another study seven antibiotic treatments are compared with no treatment. Changes in milk electrical conductivity was used as an indication of when to treat cows. Then oxytocin treatment was compared to antibiotic treatment in these cows. Two studies look at treatment with tilmicosin or cephapirin against *Staphylococcus aureus* mastitis, one at dry off and the other during lactation.

New print and data technologies have made it possible to create ADSA Scientific Reader Series titles relatively quickly and efficiently. If you have a topic or question that you would like to see explored in an ADSA Scientific Reader, and are confident that there is a demand for at least 150 copies of the report, please contact Kent Williamson at 217-356-2426 (extension 13) or kentw@assochq.org. To order a copy online, click on this address: http://www.fass-secure.org/reader.htm

**A Note to JDS Contributors**
A few new style conventions for the *Journal of Dairy Science* have been adopted. Among these are a new author/year citation system that should be used when preparing manuscripts for the journal. For a summary of instructions to authors go to www.adsa.org/jds and click on the "instructions to authors" button.

**Baltimore 2K Annual Meeting Program Plan Looks Promising**

An outstanding scientific program is rounding into form for the ADSA/ASAS Joint Annual Meeting in Baltimore, July 24 - 28, 2000. More than 30 symposia are planned for the meeting, which will include an Industry/Tech Forum Day focus (on the 25th), a Cyber-Cafe computer center with special mini-courses on using search engines and submitting manuscripts electronically, and an ADSA Foundation-sponsored auction of dairy collectibles and ice cream social (on the 26th). This year, "interpretive summaries" of symposia papers will be available on the Baltimore 2k website (www.baltimore2k.org) in advance of the meeting, and the joint symposia issue of *JDS* will be published electronically, which should make the papers available much sooner than the 12 - 18 month delay we have had traditionally. Here are a few highlights of symposia topics of interest to ADSA members:

- **Animal Behavior and Well-Being** A full-day symposium, "Livestock Transport: Industry Issues and Research Challenges" is planned to focus on: Bringing Livestock Transport into Y2K Compliance (morning) and Livestock Transportation: Research Challenges for the New Millennium (afternoon). The symposium is co-sponsored by the Contemporary and Emerging Issues Committee and the NCR-131 Committee (Behavior of Domestic Animals).

- **Animal Health** A half-day symposium "Nutritional and Environmental Factors Influencing the Immune System" is planned. This Committee also will co-sponsor a symposium on "Lameness and the Environment" with the Production and Management Committee.

- **Breeding and Genetics** "A Tribute to A. E. Freeman, Iowa State University" will be the focus of a series of nine presentations on genetic improvement of livestock by former PhD students of Freeman; a meal function will be an extra feature of this all-day session. Other symposia include: "Inbreeding in Animal Agriculture" and "Genetics of Carcass Merit."

- **Contemporary and Emerging Issues** Two timely symposia are planned by the Committee and co-sponsored by the Federation of Animal Science Societies (FASS): "The Future of Animal Agriculture in Supplying Food for the World"; and, "Genetically Modified Organisms in the Global Marketplace".

- **Dairy Foods** The ADSA Foods Division has an exciting, integrated program planned which will be of interest to many among both organizations involved in food production and processing. A symposium, "Small Ruminant Dairy Research", will highlight hot topic considerations related to milk production and dairy foods from goats and sheep. Another symposia, "Lactobacilli" will address the therapeutic use, metabolic diversity, bacteriocins, and effects on cheese production. Emerging food safety issues will be the focus of a symposium co-sponsored with the Food Safety Committee on pasteurization.
alternatives, risk assessment and science-based policy, U.S. Cheese Standards, and Codex Hygiene Standards/setting international standards. The ADSA Foods Division's Enzyme and Proteins Nomenclature Committee has planned the symposium, "Biologically Active Peptides and Proteins in Milk". A symposium on "Educating Dairy Foods Scientists for the 21st Century", will be presented in a roundtable discussion format to address the shortage of faculty positions and trained dairy foods graduates in food science and animal science departments.

A major highlight of this year's meeting will be the pre-conference educational workshop to focus on the role of lactic acid bacteria in cheese flavor development. The purpose of this workshop, beyond the science, is to showcase industry and university research leaders as role models for graduate students and industry personnel.

- **Dairy Species Committee** "Endocrinology and Metabolism of Transition Dairy Cows", a fast-developing area of scientific inquiry, is the theme of this Committee's symposium.

- **Food Safety** "Farm-to-Table Food Safety - Knowledge Gaps and Lessons Learned", will be the central theme of a symposium, co-sponsored with the Dairy Foods Committee, addressing current and emerging issues about food borne diseases, lessons from the BSE story, Johnes' (Mycobacterium paratuberculosis) disease, HACCP plan development and implementation in beef feedlots, transmission of antibiotic resistance, risk assessment and science-based policy of food borne pathogens, food safety issues in ready-to-eat meats, pasteurization alternatives, and national surveillance systems.

- **Forages and Pastures** Two symposia, "Protein Nutrition in Forage-Fed Ruminants" and "Energetics and Forage Utilization" will be sponsored jointly by the Forages and Pastures and Ruminant Nutrition Committees.

- **Genetically Modified Organisms/FASS Committee Symposia** The Federation of Animal Science Societies (FASS) Committees (Food Safety, Environment, and Animal Care), in cooperation with the Contemporary and Emerging Issues Committee are co-sponsoring the symposium on "Genetically Modified Organisms in the Global Marketplace". This full-day pre-meeting symposia (tentatively scheduled for the 24th) will feature a roster of well-informed speakers to explore one of the most controversial agricultural issues of our time.

- **Goat Species Committee** This Committee is sponsoring a symposium on "Goats for Vegetation Management", and is co-sponsoring with Dairy Foods the symposium on "Small Ruminant Dairy Research".

- **Growth and Development** The Growth and Development Committee has formulated a program which will feature a full-day symposium on "Functional Genomics", and a mini-symposium on "Mechanisms of Hormone Action". Additionally, a session of oral presentations will focus on "Appetite Regulation" and one invited talk followed by a series of at-large oral presentations requested from and submitted by members of ASAS and ADSA. The central theme, "Impact of Clinical/Subclinical Disease in Animal Growth" will be the topic of another oral session, anchored by an invited presentation. Two general poster sessions on growth and development will round-out this program.

- **International Animal Agriculture** A half-day mini-symposium, "Converting Research to Application in Tropical and Subtropical Animal Production and Processing Systems" is
planned. The other half day will be devoted to oral and poster presentations on tropical and subtropical animal agriculture.

- **Milk Synthesis** "Physiology and Economics of Alternate Methods for the Initiation of Lactation". Short Q & A and a longer discussion session will enhance assimilation of information on topics of: induction of lactation in heifers; efficacy and economics of steroid-induced lactation in cull cows; effects of milking interval on mammary function and shape of the lactation curve; delayed breeding in cows receiving bST; and economics of atypical milk production.

- **Physiology** Four mini-symposia will anchor the Physiology Committee's program this year. In each case, at-large abstract submissions from the membership for poster and oral presentations will complement main topics: luteal cell interactions and function; regional projects associated with reproduction; regulation of feed intake; and, genomic markers for reproduction and milk production traits.

- **Production and Management** A real-life case study, "The Effects on Profits of (1) Adding Cows or Herds Versus (2) Adding Technology to Increase Efficiency and to Increase Production Per Cow" will be highlighted. Additionally, symposia will focus on: "Effects of Anabolic Implants on Carcass Yield Grade and Quality" (co-sponsored with the Beef Species Committee); "Lameness and the Environment" (jointly sponsored with the Health Committee); and, "Management of Dairy Herds for 40,000 lb milk/ year".

- **Ruminant Nutrition** Symposia will focus on: "Starch Utilization by Ruminants" and "Protein Nutrition in Forage-Fed Ruminants" (co-sponsored with the Forages and Pastures Committee). Additionally, invited presentations addressing ionophores in diets of lactating dairy cows, and the effects of animal grouping on feeding behavior and feed intake will anchor oral abstract sessions on these topics.

- **Undergraduate and Graduate Education** A half-day symposium on "Methods to Enhance Systems-Based Thinking in Animal and Dairy Science Teaching Efforts" is one attraction of this program. Additionally, a workshop "Equipping Graduate Students for the Faculty Workplace" will be held on the afternoon prior to the opening session. A panel and roundtable discussion on "Development of Teaching Portfolios" presented and lead by departmental administrators and successful teachers is planned. Additionally, again this year a fee-based workshop on "Mixed Models for Experimental Scientists in Animal and Dairy Science" will be presented by R. J. Tempelman (Michigan State University) and L. W. Douglass (University of Maryland).

- **Women and Minority Issues in Animal Agriculture** The Committee has planned a program to address the topic "How Do 'We' Fit Into ASAS and ADSA - Women, Minorities, and Internationals". The Program will be held in conjunction with a late afternoon social function.

For up-to-the-minute annual meeting information and a registration form (coming in March) consult the meeting website on a regular basis www.baltimore2k.org

**Annual Meeting Abstract Deadline February 15**
The deadline for submitting annual meeting abstracts is fast approaching. For instructions describing how to submit online, go to http://www.baltimore2k.org/abstract/instructions.htm
Act now to ensure that your work is included in this year's program!

Still Time to Donate Auction Items

For many regular annual meeting attendees, the ADSA Foundation Auction is the highlight of the week--at least as far as the non-program part of the meeting is concerned! You can be a part of this year's item by dusting off that dairy collectible or artifact, and donating it to the auction catalog. For a donation form, catalog of current items, and an overview of the auction, go to www.baltimore2k.org and click on the auction information button. Remember, all proceeds from the auction help underwrite scientific programming, awards, and other worthwhile projects. The value of the items you donate to the auction is tax deductible as a charitable contribution. So have fun while you help advance our profession by participating in the 2000 ADSA Foundation Auction.

News/Professional Opportunities/Grants/Meeting Schedule

News and Notes

These news articles have been forwarded from Jack Cooper's Food Industry Environmental Network Newsletter (FIEN) electronic newsletter. For subscription information, contact: Jack L. Cooper
Food Industry Environmental Network (FIEN)
33 Falling Creek Court; Silver Spring, Maryland 20904
Phone: 301/384-8287 --- Fax: 301/384-8340
E-Mail: JLC@fien.com

GLICKMAN ANNOUNCES $180 MILLION USDA INVESTMENT IN RURAL AMERICA, AGRICULTURAL RESEARCH

WASHINGTON, January 10, 2000 Agriculture Secretary Dan Glickman today unveiled plans for $180 million in new USDA investments in projects aimed at boosting the rural economy, promoting agricultural research, and developing new agricultural products and practices for the future.

"In the best economy in generations, we must make sure not to leave rural America or our nation's family farmers and ranchers behind," said Glickman. "And the future of family farming in the United States depends on nurturing new practices, new products, and new markets."

Glickman awarded $60 million in Fund for Rural America research and economic development grants today.
The remaining $120 million will be distributed through a competitive grant process under the Secretary's new Initiative for Future Agriculture and Food Systems.

Later this year, USDA will issue a request for proposals to solicit specific project proposals for the Initiative. The needs of small- and medium-sized producers will be a priority. The Secretary's new $120 million Initiative for Future Agriculture and Food Systems promises to help address some of the most critical issues facing American agriculture.

The Initiative, authorized by Congress in 1998, will fund competitive research, education, and extension grants that focus on production agriculture, natural resource management, and consumer issues.

The Initiative's priorities include -- Agricultural genomics and biotechnology risk assessment; Food safety and the role of nutrition in health; New uses for agricultural products, including biomass fuel sources; Natural resources management, pest management and precision agriculture; and Farm efficiency and profitability, with an emphasis on small- and mid-sized family farms.

**News Note: FASS Ag Animal Care Guide Adopted by USDA/APHIS**

**DEPARTMENT OF AGRICULTURE**

Animal and Plant Health Inspection Service

**ACTION: Notice.**

**SUMMARY:** We are adopting two guides: The "Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching," published by the Federation of Animal Science Societies, and the "Guide for the Care and Use of Laboratory Animals," published by the Institute of Laboratory Animal Resources. We are adopting these guides to assist regulated entities in meeting the standards in the regulations as they apply to the handling, care, treatment, and transportation of farm animals used for nonagricultural purposes (primarily research and exhibition). The recommendations in these guides represent the most current thinking on appropriate practices for the handling, care, treatment, and transportation of farm animals for nonagricultural purposes.

**EFFECTIVE DATE:** March 6, 2000.

**FOR FURTHER INFORMATION CONTACT:** Dr. Richard Watkins, Animal Care, APHIS, USDA, 4700 River Road Unit 84, Riverdale, MD 20737-1234; (301) 734-4981.

**Special Notice: Codex Committee on Milk and Milk Products to Hold Public Meeting**

**AGENCY:** Food Safety and Inspection Service, USDA.
ACTION: Notice of public meeting, request for comments.

SUMMARY: The Agricultural Marketing Service and the Food Safety and Inspection Service (FSIS), U.S. Department of Agriculture; and the Food and Drug Administration, U.S. Department of Health and Human Services, are sponsoring a public meeting on February 15, 2000, to provide information and receive public comments on agenda items that will be discussed at the 4th Session of the Codex Committee on Milk and Milk Products, which will be held in Wellington, New Zealand, on February 28-March 3, 2000.

DATES: The public meeting is scheduled for Tuesday, February 15, 2000, from 9:00 a.m. to 12:00 noon.

ADDRESSES: The public meeting will be held in Room 0745, South Agriculture Building, U.S. Department of Agriculture, 14th Street and Independence Avenue, SW, Washington, DC 20250. To receive copies of the documents referenced in the notice contact the FSIS Docket Clerk, U.S. Department of Agriculture, Food Safety and Inspection Service, Room 102, Cotton Annex, 300 12th Street, SW, Washington, DC 20250-3700. The documents will also be accessible via the World Wide Web at the following address: http://www.fao.org/waicent/faoinfo/economic/esn/codex/ccmmp4/MM0001E.htm. When submitting comments, send an original and two copies to the FSIS Docket Clerk and reference the Docket # 00-002N and the appropriate document number. All comments submitted will be available for public inspection in the Docket Clerk's Office between 8:30 a.m. and 4:30 p.m., Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Patrick J. Clerkin, Associate U.S. Manager for Codex, FSIS, Room 4861, South Agriculture Building, 1400 Independence Avenue SW., Washington, DC 20250-3700, telephone (202) 205-7760; Fax (202) 720-3157.

Background Information:

The Codex Alimentarius Commission (Codex) was established in 1962 by two United Nations organizations, the Food and Agriculture Organization and the World Health Organization. Codex is the major international organization for encouraging fair international trade in food and protecting the health and economic interests of consumers. Through adoption of food standards, codes of practice and other guidelines developed by its committees, and by promoting their adoption and implementation by governments, Codex seeks to ensure that the world's food supply is sound, wholesome, free from adulteration, and correctly labeled.

The Codex Committee on Milk and Milk Products was established to elaborate codes and standards for Milk and Milk Products. The Government of New Zealand hosts this committee and will chair the committee meeting. Issues to be Discussed at the Public Meeting

The following specific issues will be discussed during the public meeting:

1. Matters referred by the Codex Alimentarius Commission and other Codex committees.
3. Review of the Proposed Draft and Draft Revised Standards: Cream; Fermented Milk Products; Dairy Spreads; Processed Cheese; Individual Cheeses; Whey Powders; and Edible Casein Products; at Step 4.

Each issue listed will be fully described in documents distributed, or to be distributed, by the New Zealand Secretariat to the Meeting. Members of the public may access or request copies of these documents (see ADDRESSES).

Additional Public Notification

Public awareness of all segments of rulemaking and policy development are important. Consequently, in an effort to better ensure that minorities, women, and persons with disabilities are aware of this public meeting, FSIS will announce it and provide copies of this Federal Register publication in the FSIS Constituent Update. FSIS provides a weekly FSIS Constituent Update, which is communicated via fax to over 300 organizations and individuals. In addition, the update is available on line through the FSIS web page located at http://www.fsis.usda.gov. The update is used to provide information regarding FSIS policies, procedures, regulations, Federal Register notices, FSIS public meetings, recalls, and any other types of information that could affect or would be of interest to our constituents/stakeholders. The constituent fax list consists of industry, trade, and farm groups, consumer interest groups, allied health professionals, scientific professionals, and other individuals that have requested to be included. Through these various channels, FSIS is able to provide information to a much broader, more diverse audience. For more information and to be added to the constituent fax list, fax your request to the Congressional and Public Affairs Office, at (202) 720-5704.

Done at Washington, DC on: January 19, 2000.

F. Edward Scarbrough,
U.S. Manager for Codex Alimentarius.
[FR Doc. 00-1662 Filed 1-21-00; 8:45 am]
BILLING CODE 3410-DM-P

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1999 DAIRY DIRECTIVE GRANT COMPETITION DEADLINE APPROACHING

POC Joyce Turk, Tel: 202-712-1424, Facsimile 202-216-3010, E-mail: jturk@[USAID].gov
Pursuant to [USAID] Automated Directives System (ADS) Series 303.5.5, this announcement contains information on the 1999 Dairy Directive which is managed by G/EGAD/AFS. Application Deadline is February 10, 2000. NOTE: NO SEPARATE REQUEST FOR APPLICATION (RFA) WILL BE ISSUED -- ALL INFORMATION NECESSARY TO SUBMIT AN APPLICATION FOR CONSIDERATION IS CONTAINED IN THIS ANNOUNCEMENT. Dairy development can play a key role in moving developing and transitional country agriculture in the direction of viable, commercial enterprise. Because of its strong upstream and downstream linkages, it provides a means of addressing both farm-level production and value-added processing and marketing and associated policy issues. And because of their nutritional qualities, dairy products play a vital role in children's physical and cognitive development. Over the past five years, [USAID] has managed $18.5 million of development assistance provided by Congress under the dairy directive, in addition to funds provided through bilateral programs. Use of these funds has resulted in development of dairy cooperatives internationally, has provided a platform for the U.S. dairy industry to play an important role in bringing US technology to developing countries and transition economies while also developing and expanding its export market. Moreover, it has enabled [USAID] to engage in a range of dairy development-related issues: production, processing, marketing, and cooperative or producer association building. According to a recent International Food Policy Research Institute (IFPRI) publication ("World Food Products: Critical Issues for the Early Twenty-First Century") a demand-driven "livestock revolution" is underway in the developing world: Opportunities for further dairy development are large, and many challenges remain. The 1999 Foreign Operations, Export Financing, and related Programs Appropriations Bill, recommends that the [AGENCY FOR INTERNATIONAL DEVELOPMENT] continue funding for dairy development. [USAID] sees this as an opportunity to move further into the arena of commercial dairy industry development and modernization, and preparation for participation in regional and global trade, as well as to reinforce the message about the critical role of dairy products in nutrition -- especially for child survival. The dairy directive funding available for FY99 totals $4.5 million. In the obligation of these funds, [USAID] will continue to utilize the competitive grant mechanism. Implementers will be expected to focus efforts in the areas where greatest impact could be achieved, with special reference to nutrition for children, and safety and quality of products entering the food system. As always, it is important that any proposal be integrated into Missions' strategic frameworks, and bear Missions' endorsement. The grant period remains three years for each award. CRITERIA AND PROPOSAL FORMAT. The criteria and proposal format include two areas not emphasized in previous years -- the importance of dairy products to children's cognitive and physical development, and dairy product safety and quality. Proposals may be new projects or those that build on current activities. Proposals will be evaluated and scored based on developmental impact, management capability, and procedural organization. 1999 PROPOSAL FORMAT. EXECUTIVE SUMMARY. NARRATIVE: Objectives -- statement addressing developmental need and specifically defined constraints; Methodology; Expected impacts; Indicators; How other (private, NGO, govt.) funding will be leveraged; Integration with Mission's strategic objectives (SOs); Validation of sufficient management for effective project implementation; Verification of strong host country counterpart commitment; Plans for follow-on or transition phase of technical assistance and phase-out for investments/services; Description of proposer's experience in international dairy development; Budget, using standard form SF424 (can be
News Note: Consumer and Farm Study Reveals Gaps on Key Ag, Food Production Issues

Houston, Texas - January 11, 2000 - While consumers are very satisfied with their food supply, they have concerns about some farming practices used to provide that food supply, according to a newly released study commissioned by the Philip Morris family of companies (PM) and the American Farm Bureau Federation (AFBF).

The study, conducted by Roper Starch Worldwide in July and August 1999, is one of the most comprehensive farmer - consumer studies ever undertaken. Specifically, the research asked 1,002 consumers to share their views of modern farming practices and to assess the job farmers are doing in meeting the food demands of the public. The survey also asked 704 of the nation's farmers and ranchers to assess their own performances - as well as assess consumers' perspectives about agricultural practices.

"While no one should be too surprised to learn that most consumers don't understand what farmers do to produce their food and clothing, this research shows that many of us in agriculture have miscalculated where consumers' most pronounced concerns exist," says Jay Poole, Vice President of Agricultural Relations for the Philip Morris family of companies, one of the nation's largest purchasers of agricultural products.
Selected Survey Results

The survey provided responses to more than 140 questions divided into the following categories:

1. Consumer preferences for the food they eat
2. Consumer satisfaction with various food characteristics
3. Farmers' views of consumer preferences and satisfaction with the food supply
4. Farmers' and consumers' attitudes toward modern food production practices and the impacts of those practices on the environment
5. Farmers' and Consumers' views about the healthfulness and safety of the food supply, as well as farm and food policy.

Here are the topline survey results:

Consumers open-minded about biotechnology

The survey indicates that both consumers and farmers are open to biotechnology, particularly when they see its direct benefits. While 37 percent of consumers say they've heard more about the benefits than drawbacks of biotechnology, their support for biotechnology increases to:

- 57 percent if biotechnology improves the taste of foods
- 65 percent if biotechnology improves the nutritional value of food
- 69 percent if biotechnology increases food production
- 73 percent if biotechnology reduces pesticide use

"These results are not unusual," observes Bob Pares, Vice President of Roper Starch Worldwide. "Consumers are willing to use whatever means are available to achieve desired outcomes. It's the same trend we're seeing with alternative medicine."

Farmers overestimate negative perceptions, while consumers remain uncertain

The research shows that farmers overestimate the level to which consumers have heard drawbacks about several key agricultural production practices, including biotechnology, the use of hormones in milk production, irradiation, and antibiotics used to treat animal diseases.

The survey also indicates, consumers haven't heard or don't know much about many farming practices. For example, the biggest group of consumers say they haven't heard enough about either the benefits or drawbacks of the following farming or food production practices to have formed an opinion:

- 41 percent on biotechnology
- 41 percent on irradiation
- 31 percent on the use of antibiotics to treat animal diseases
• 28 percent on using hormones to increase milk production in dairy cows, or organic production methods

"Influential Americans" TM - those who are more active in community affairs or politics - have heard more than other consumers about both the benefits and drawbacks of most agricultural practices. Despite the controversies surrounding several of these practices, the better-informed "influential" consumers generally are more accepting of some technologies, including biotechnology.

"One of the consumer trends we've been watching over the last decade is this need to be informed," notes Pares. "Consumers want to make informed choices, and if the agriculture industry is not putting out the information, someone else will, and the information they share may not always be accurate or in the best interest of agriculture."

Other key findings

While consumers appear open-minded on many farming practices, they are not comfortable with the use of pesticides in food production and will accept higher prices (57 percent), a smaller food selection (68 percent), seasonal availability (72 percent), and biotechnology (73 percent) as trade-offs for not using chemicals in food production.

"Some of these results really surprised us," notes American Farm Bureau Federation President, Dean Kleckner. "It's clear that the agricultural industry has not done a good job educating consumers about the benefits of pesticide use. It's important that we don't make the same mistake with biotechnology and other new farming practices."

One thing farmers (71 percent) and consumers (67 percent) agree upon is that the agricultural industry is doing only a "fair" or "poor" job of explaining the benefits and drawbacks of farming techniques to the public.

This study is part of the Philip Morris Shared Solutions SM Agricultural Initiative, a project for their family of companies to work together with the nation's farmers and ranchers to address important issues confronting the farm-to-consumer production chain. "One of the things the agricultural industry can do is inform and educate consumers about modern agricultural production practices," notes Poole. "Consumers have a huge influence on agricultural policies. We must address the gaps identified in this study if we want to establish sound farm policies."

To receive a summary of the Gap Research, write to Steve Bennett, Morgan & Myers, 606 East Wisconsin Ave., Milwaukee, WI 53202.