

The State of Missouri Agriculture

The Missouri Department of Agriculture (MDA) is responsible for promoting agricultural business development while preserving and enhancing our environment and agricultural resources. The MDA provides leadership for Missouri's agricultural community through programs that build economic opportunity. Our mission is to be the leading state agency in the marketing of all food and agricultural products. Our objective is to maximize the return on today's agricultural products through agricultural business development and market information, while implementing strategies to generate opportunities for the future.

The department is equally responsible for protecting our consumers by ensuring they receive a quality, safe product at a fair price. Assurance of the quality and safety of agricultural products bolsters consumer confidence and promotes economic prosperity. Concurrently, through animal and plant health, grain storage auditing and inspections, weights and measures testing, and milk inspection, MDA provides the framework for food safety and helps ensure the integrity of the marketplace. We believe that, whenever feasible, agriculture should rely on voluntary, market-based approaches rather than government regulation. When regulation is necessary, the use of a transparent rulemaking process should be emphasized.

The 2007 Farm Bill will have significant impacts on the future of Missouri agriculture. We are engaged with Congress to assure continuation of farm programs that provide a "safety net" for producers while also ensuring that Missouri consumers continue to enjoy a relatively inexpensive, safe, and abundant food supply.

The Missouri Department of Agriculture is focused on the following goals:

1. Improved economy and increased number of quality jobs for Missouri.
2. Increased efficiency, accountability, and responsiveness of Missouri state government.
3. Increased return on investment of State funds.
4. Improved customer support and service to Missouri businesses.
5. Improved producer and consumer protection.

To achieve these goals, the department regularly reviews programs, services, and processes to eliminate those that are ineffective. The department also increases the efficiency of essential services through simplification, automation, and the elimination of waste, fraud, and abuse. In addition, the department develops and implements results-based strategies to accomplish its mission, maximizes personnel productivity through the cross-training of employees for multiple jobs, and reviews existing programs to determine if they can be accomplished at a lower cost by the private sector. The department adjusts employee work hours and utilizes flex-time scheduling as needed. Technology improves the department's efficiency and accessibility through uses such as on-line bidding, placing all citizen services on the Internet, and making every state manager accessible via e-mail.

A recent example of success that will dramatically impact the achievement of our goals is implementation of a Quality Systems Assessment (QSA) Program. Missouri is the first state in the nation to implement this program which allows livestock producers to sell source and age verified cattle using third party verification. QSA gives Missouri producers a significant

competitive advantage in efforts to regain access to valuable export markets as the markets reopen.

Missouri is also the first state to implement a quality assurance program dedicated to providing healthy companion animals to families across Missouri and the United States. The Blue Ribbon Kennel Program is a new premium puppy program designed to assure prospective animal owners that the puppies they purchase were under the proper care of the most responsible pet breeders in Missouri.

As part of our mission, we are renewing and reenergizing the partnership between the state's agricultural organizations and the researchers and scientists working at Missouri's colleges and universities. This partnership promotes the development and use of emerging agricultural technologies that add more value to our agricultural industry. One of the department's main initiatives is to focus research on livestock odor abatement to allow Missouri's rural agricultural communities to grow and create job opportunities. A task force is working to identify funding sources for the research and development of new products that eliminate livestock odor.

Tremendous opportunities exist for business development in Missouri and the following key strategies will allow us to achieve our goals:

1. Establish a Missouri Business Development Coalition between the Missouri Departments of Agriculture, Economic Development, Health and Senior Services, Natural Resources, Revenue, and Highways and Transportation.
2. Create a more favorable business climate for Missouri agriculture.
3. Develop new and expanded product and market development opportunities for Missouri agricultural products, both raw and processed.
4. Expand access to capital and business services for business creation and expansion.

The department's strategic plan encompasses positive initiatives to meet the needs of our industry and set our future direction. As the Missouri Department of Agriculture emerges as the leading agency for the marketing of all food and agricultural products, we recognize our success is dependent upon retaining or acquiring the very best personnel available to guide and oversee the largest industry in Missouri. To enhance the department's role as a strong and visible advocate for the state's agricultural community, the following staff members serve as key agricultural liaisons to other agencies within state government:

Staff Member – Liaison Responsibilities

Tony Stafford – Economic Development, State Treasurer, Elementary and Secondary Education

Shane Brookshire – Health and Senior Services, Public Safety

Jim Lea – Natural Resources, Conservation

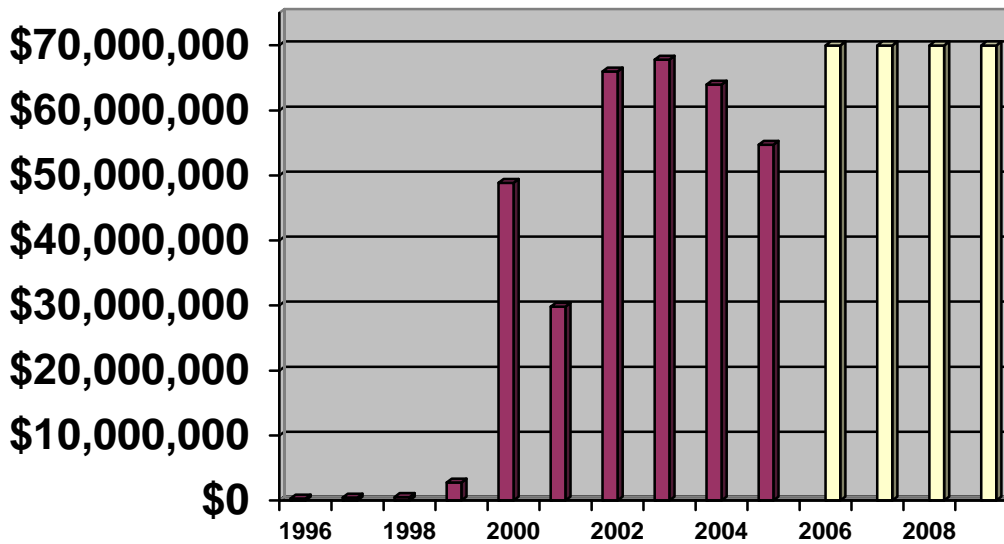
Rich Kaiser – Revenue, Natural Resources

Mel Willard – Economic Development, Tourism

Terry Long – Health and Senior Services

Key Objective: Maintain at least a \$70 million annual economic impact through FY 2009 for MDA services provided to Missouri firms and farms.

Economic Impact



Data Source: MDA Program Data

Strategic Initiatives:

- Provide value-added grants, loan guarantees and tax credits for Missouri farmers interested in adding value to their agricultural products.
- Encourage existing agri-businesses to expand and new agri-businesses to locate in Missouri through a multi-agency approach that ensures a favorable business climate.
- Assist value-added companies with developing and expanding export sales. For example, the Department’s Taiwan office is assisting a Taiwanese pork processor purchasing and remodeling a Missouri pork processing plant. The plant will initially process 20,417 metric tons of pork and export it to Japan. Because it takes one metric ton of soybean meal to produce one metric ton of pork, the plant’s impact translated into 20,417 metric tons of additional soybean meal demand in Missouri.

Why This is Important

Economic impact is a measure of the true value of money’s effect on the economy. The local economic impact gives communities a sense of ownership. The direct economic impact provides opportunities for local communities, businesses, and schools to maintain economic viability.

The Federal Reserve Bank of Kansas City’s Center for the Study of Rural America reports that while agriculture is no longer an economic tide that lifts all of rural America, it is the leading source of income to about a quarter of all rural communities. The department’s economic impact is a good indicator of MDA’s ability to leverage the limited financial resources available to Missouri agriculture.

Trend Analysis

The department’s efforts provided for a modest but steady increase through 1999. However, with the implementation of the Missouri Value-Added Grant Program, Missouri Value-Added Loan Guarantee Program, New Generation Cooperative Incentive Tax Credit Program, and the Boll Weevil Eradication Program a significant increase in economic activity was recorded.

Major economic activity is dependent upon value-added enterprises becoming operational. Typically these enterprises have been structured as new generation processing entities, which require a detailed organizational structure plus a great amount of member financial equity. The process is often time consuming and delays are common.

How Missouri Compares to Others

Missouri has a broad portfolio of financial and technical assistance programs to help producers and agribusinesses enhance profitability. These programs give producers the flexibility in choosing the financial assistance programs most appropriate for the business strategies used, including enhanced marketing of farm products, adding value to farm products through further processing, or investing in new farm assets. Although the dollar value of impact from other state’s programs is not available, the table below illustrates the range of Missouri’s products and services compared to surrounding states.

	PRODUCTION AGRICULTURE					AGRICULTURAL MARKETING				VALUE-ADDED AGRICULTURE			
	Direct Loans	Aggie Bonds	Loan Guarantee	Grants	Tax Credits	Direct Loans	Loan Guarantees	Grants	Tax Credits	Direct Loans	Loan Guarantees	Grants	Tax Credits
<i>AK</i>	<ul style="list-style-type: none"> ▪ Beginning Farmer Loan Program ▪ Capital Access Program ▪ Farm Link ▪ Boll Weevil Eradication Program 					<ul style="list-style-type: none"> ▪ Export Finance Program ▪ Agricultural Cooperative Loan Program ▪ Aquaculture Development Program 				<ul style="list-style-type: none"> ▪ ADFA Bond Guaranty Program 			
<i>IL</i>	<ul style="list-style-type: none"> ▪ Beginning Farmer Bond Program ▪ Young Farmer Guarantee Program ▪ State Guarantee Program for Restructuring Agricultural Debt ▪ Specialized Livestock Guarantee 					<ul style="list-style-type: none"> ▪ Illinois Products 				<ul style="list-style-type: none"> ▪ State Guarantee Program for Agri-Industries ▪ Cooperative Stock Purchase Program 			
<i>IA</i>	<ul style="list-style-type: none"> ▪ Beginning Farmer Loan Program ▪ Loan Participation Program ▪ Animal Waste Loan Program 					<ul style="list-style-type: none"> ▪ Organic Certification NOP ▪ A Taste of Iowa 							
<i>KS</i>	<ul style="list-style-type: none"> ▪ Beginning Farmer Loan Program 					<ul style="list-style-type: none"> ▪ Market Development Funds ▪ From the Land of Kansas 				<ul style="list-style-type: none"> ▪ HACCP Implementation Program ▪ Commercialization Funds Program 			
<i>MO</i>	<ul style="list-style-type: none"> ▪ Animal Waste Treatment System Loan ▪ Alternative Loan ▪ Beginning Farmer Loan ▪ Single-Purpose Animal Facilities Loan Guarantee ▪ Crop & Livestock Loan Guarantees ▪ BOAC Grants ▪ Boll Weevil Eradication Program 					<ul style="list-style-type: none"> ▪ Alternative Loan ▪ AgriMissouri Promotion Programs 				<ul style="list-style-type: none"> ▪ Alternative Loan ▪ Value-Added Loan Guarantee ▪ Value-Added Grant ▪ New Generation Cooperative Incentive Tax Credit ▪ Agricultural Product Utilization Contributor Tax Credit ▪ Organic Certification Cost-Share 			
<i>NE</i>	<ul style="list-style-type: none"> ▪ IDB-Based Agricultural Loan Program 					<ul style="list-style-type: none"> ▪ Organic Grain Certification ▪ Grow Nebraska 							
<i>OK</i>	<ul style="list-style-type: none"> ▪ Beginning Farmer Loan Program 					<ul style="list-style-type: none"> ▪ Made in Oklahoma 							

Programs and Approaches to Address the Issue

Producers can enhance their profitability by capturing more of the revenue stream in the value-added processing and marketing system. Proven strategies for capturing more of the value created in the system include: value-added agriculture, enhanced marketing of products, identity preserved crops, specialty crops, and organic production.

Agriculture is a capital-intensive enterprise. To compete effectively, Missouri's agricultural producers must have access to affordable capital. Financial and technical assistance are needed to bring feasible value-added products to the marketplace and to provide lenders with incentives to finance new production, value-added, and small business activities. Examples of successful MDA initiatives include:

Missouri Agricultural and Small Business Development Authority

Beginning Farmer Loan Program

Animal Waste Treatment System Loan Program

Single-Purpose Animal Facility Loan Guarantee Program

Missouri Rural Economic Stimulus Act (MoRESA)

Missouri Value-Added Grant Program

Missouri Value Added Loan Guarantee Program

New Generation Cooperative Incentive Tax Credit Program

Missouri Alternative Loan Program

Missouri 4-H and FFA Crop and Livestock Loan Guarantee Program

Ag Business Development

AgriMissouri promotions

Agriculture Development Fund's Building Our American Communities Grants

Show-Me Select Heifer Sales

Feeder Calf Grading Program

Animal Health

Quality Systems Assessment Program (QSA)

Blue Ribbon Kennel Program

Plant Industries

Boll Weevil Eradication Program

In addition to the programs described above, the department utilizes the State Fair as the primary marketing event for Missouri agriculture. The 11-day fair showcases the best in Missouri agriculture, agri-business, and domestic arts. The State Fair plays an important role in maintaining agriculture as one of Missouri's top industries.

Concerns

- MDA services to firms and farms create economic impacts throughout the state. However, it is difficult to accurately measure the economic impact of MDA financial and technical assistance programs. The economic impact measure is important in that it helps MDA develop strategies to focus on utilizing limited resources in the most effective and efficient means possible.

- When the first State Fair was staged in 1901, Missouri’s population was two-thirds rural. Today, the majority of the state’s residents live in urban areas. This fact highlights the importance of continuing to showcase Missouri agriculture because it is more vital than ever to educate our population about the food and fiber they consume and use everyday.

Other Sources of Information

Missouri Department of Agriculture -- <http://www.mda.mo.gov>
 Missouri Agricultural Statistics Service -- agebb.Missouri.edu/mass
 USDA Farm Service Agency -- <http://www.fsa.usda.gov>
 National Council of State Agriculture Finance Programs
 National Association of Rural Rehabilitation Corporations

Data Table

Dollars of Economic Impact Per Fiscal Year

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
\$325,869	\$445,176	\$524,151	\$2,781,574	\$48,850,495	\$29,838,331	\$65,977,046	\$67,802,626	\$63,976,421	\$54,720,530

Source: MDA Program Data

Description of Measure

The economic impact of MDA services is calculated as the sum of direct savings (i.e. interest rate reductions and production cost savings) and investments that result from the department’s tax credits and other financial services. The measure does not include estimates of the direct and indirect economic impacts commonly cited in economic impact analyses. Including those estimated impacts would substantially increase the measure presented here.

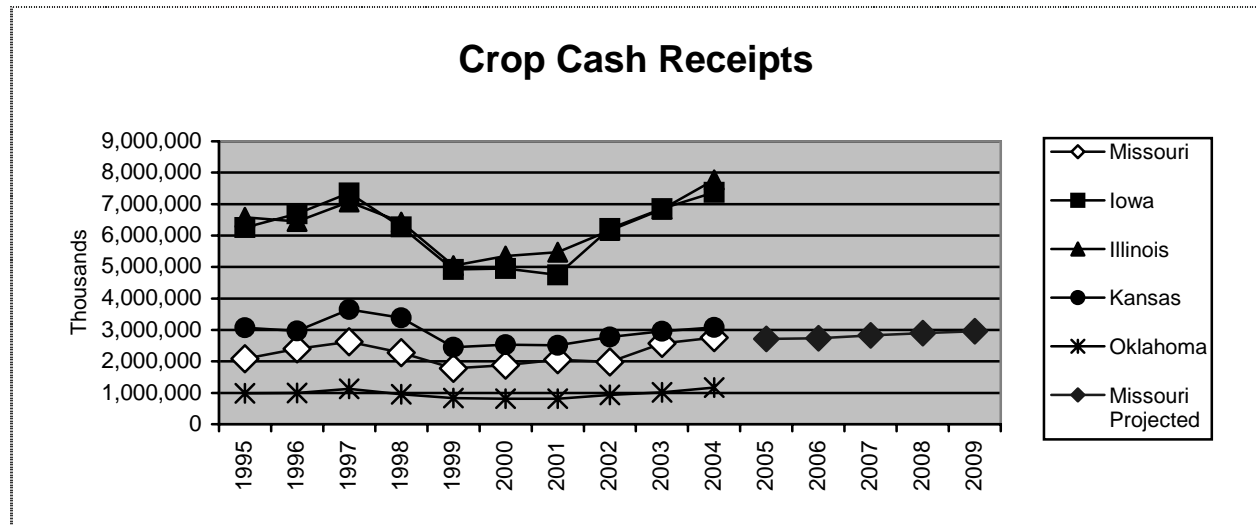
Programs included in the measure are:

1. Beginning Farmer Loan Program
2. Single-Purpose Animal Facilities Loan Guarantee Program
3. Animal Waste Treatment System Loan Program
4. Missouri Rural Economic Stimulus Act (MoRESA)
5. Missouri Value-Added Grant Program
6. Missouri Value-Added Loan Guarantee Program
7. Agricultural Product Utilization Contributor Tax Credit Program
8. New Generation Cooperative Incentive Tax Credit Program
9. Alternative Loan Program
10. AgriMissouri Promotion Program
11. Boll Weevil Eradication Program
12. Show-Me Select Heifer Sales
13. Premier Sales

Key Strategies:

1. Implement a statewide coordinated approach to assisting ag entrepreneurs that includes as joint venture partners, MDA, DED, and DNR with MDA as the lead agency.
2. Maintain a variety of economic incentives that will increase investment in firms and farms through the Missouri Agricultural and Small Business Development Authority to at least \$81 million in FY 2006, 2007, 2008, and 2009.
3. Increase Alternative Loans available through the Agriculture Development Fund from \$1.0 million to \$1.6 million by June 30, 2006.
4. Expand the Missouri Value-Added Grant Program to include working capital and infrastructure components.
5. Continue to develop and expand the Missouri State Fair as the premier showcase of Missouri agriculture in recognition of its unique ability to bring together rural and urban citizens in tribute to the state's number one industry.

Key Objective: Increase sales of Missouri crops from \$2.7 billion in 2004 to \$2.9 billion in 2009.



Source: USDA Economic Research Service

Strategic Priorities:

- Encourage the growth of the alternative fuels industry, with particular attention to Missouri’s ethanol and biodiesel industries.
- Improve local crop prices by recruiting two feed mills to the State. In addition to buying the primary ingredients of corn and soybean meal, one of the two mills, and likely both, will be designed to use dried distillers grains from Missouri’s ethanol plants.
- Identify new markets in the poultry industry for Identity Preserved corn for Missouri raised broilers (meat) and layers (eggs). In addition, provide information about the pet food industry to support efforts in marketing Identity Preserved corn to a pet food plant.
- Develop an Identify Preserved cotton program. Staff is working to develop a Missouri branded cotton, assisting with a certification and identifying international buyers. This program will also give the farmers the option of marketing direct.
- Ensure access to national and international markets through effective pest control programs that meet pest freedom standards. Assurances that pest freedom standards have been met can open markets for a wide variety of agricultural products such as nursery stock, logs, lumber and other plant products.

Why This Is Important

Cash crop receipts are a direct reflection on Missouri’s rural economic health, which enhances the tax base for rural schools, health care and infrastructure and ultimately impacts Missouri’s overall economic well being.

Trend Analysis

After trending upward and increasing 27% from 1992 to 1997, Missouri's crop cash receipts declined by 32% from 1997 to 1999. In 1999, farmers received the lowest value for their crop since 1991. Beginning in 2000, however, cash receipts began a steady climb to reach over \$2.7 billion in 2004.

How Missouri Compares to Others

According to the USDA's Economic Research Service, Missouri's bordering states experienced similar declines from 1997 to 1999. During that time, Illinois, Iowa, Kansas, and Oklahoma's crop cash receipts declined 33%, 29%, 33%, and 26% respectively. From 1999 to 2004, Missouri had the largest percentage increase in crop cash receipts (55%) of any of those states: Illinois (54%); Iowa (50%); Oklahoma (40%); Kansas (26%).

Factors Influencing the Measure

Production: Global competition and lower demand has been the culprit in keeping commodity prices at record low levels in recent years. In addition to improved technologies and farming techniques, favorable worldwide weather moved some countries from customers to competitors. Drought-related production shortfalls in 2002 led to higher prices for many crops. In response, the total planted acreage increased in 2003 and 2004.

Utilization: Further growth of Missouri's livestock industry will be central to the basis for corn and soybean value. Even the profitability of the ethanol and soy diesel industry is tied very close to the ability to merchandise the byproducts of these valuable processes to their highest use, livestock feed. Restrictions to the growth of Missouri's livestock industry will have a direct impact on the prices paid for corn and soybeans and any other feed grain crop.

Global economic growth is a significant factor in crop cash receipts. A stronger global economy in 2005 improves the outlook for field crops and supports longer term increases in consumption, trade, and prices.

The growth rate of the alternative fuels industry is also a significant factor in the sales of feed grains. Sixteen states, including Missouri, have passed legislation banning the use of the petroleum-derived additive MTBE as an oxygenate for gasoline. In August, President Bush signed the Energy Policy Act of 2005 into law. The legislation established a nationwide renewable fuels standard that will double the use of ethanol and biodiesel by 2012. This is causing a significant increase in the number of ethanol production facilities and is expected to boost the value of the U.S. corn crop. The agricultural industry estimates that ethanol production adds about 40 cents to the value of a bushel of corn for producer-members of ethanol plants.

Biodiesel production and utilization show similar promise for soybeans. Missouri has fourteen public biodiesel pumps and fifteen distributors of biodiesel throughout the state. Current utilization is approximately 1 million gallons of biodiesel per year in the state. Nationwide biodiesel usage is approximately 35 million gallons. According to research conducted by the Food and Agricultural Policy Research Institute (FAPRI), 100 million gallon usage of biodiesel adds approximately 12 cents-per-bushel to the value of soybeans.

Programs and Approaches to Address the Issue

The Missouri Department of Agriculture (MDA) has taken several approaches to stabilize or improve crop cash receipts.

TRADITIONAL CROPS

To improve local crop prices, MDA is actively recruiting two feed mills to the State. In addition to buying the primary ingredients of corn and soybean meal, one of the two mills, and likely both, will be designed to use dried distillers grains from Missouri's ethanol plants.

SPECIALTY CROPS

MDA is helping to identify new markets in the poultry industry for Identity Preserved corn for Missouri raised broilers (meat) and layers (eggs). Also, MDA is providing information about the pet food industry to support efforts in marketing Identity Preserved corn to a pet food plant.

MDA is in the initial stages of developing an Identify Preserved cotton program. Staff is working to develop a Missouri branded cotton, assisting with a certification and identifying international buyers. This program will also give the farmers the option of marketing direct.

The department has been successful in working with soybean exporters in selling specialty (tofu and natto) soybeans to Taiwan and other Asian markets. Missouri farmers receive a premium for producing these soybeans.

The department is researching Adzuki bean production and markets. With cooperation from the Thomas Jefferson Institute, seed varieties and farmer-grower groups have been identified to raise approximately 40 metric tons. MDA has already written and received a USDA Quality Sample Program grant to purchase and ship this Adzuki bean crop to prospective international customers. Asians use Adzuki beans as a sweetener in desserts.

MDA's Taiwan Trade Office is currently assisting with food-grade sorghum exports to Taiwan. If successful, the sales would require cleaning and bagging, therefore adding additional value in the rural community where it was produced.

Production of the above-mentioned specialty and IP crops also creates more opportunities for direct marketing by individual producers, grower groups, or Producer Owned Cooperative Organizations (POCO's). MDA, primarily through the Division of Ag Business Development, is working to encourage such direct marketing, including efforts to help producers find customers in both domestic and foreign markets.

The department is also providing sustainable and organic marketing and distribution assistance. Although organic production usually results in a lower yield per acre, organic production clearly increases Missouri's cash receipts. A USDA Economic Research Service Report entitled "U.S. Organic Farming Emerges in the 1900's: Adoption of Certified Systems" showed that organic grain and soybean crops saw a 50 percent increase in price premiums from '93 – '99. The report also found substantial premiums for organic fruits, vegetables, and milk.

The department is also dedicated to supporting Missouri fruit and vegetable production, which tend to be higher value crops than the traditional mix of corn, soybeans, and wheat. In addition to assistance in locating wholesale markets through grocery stores and restaurants, the Department helps farmers with direct selling by helping establish Farmers' Markets. The number of farmers markets increased from 75 in 1997 to 112 in 2005.

VALUE-ADDED PRODUCTS

The department's Missouri Ag and Small Business Development Authority (MASBDA) offers value-added grants, loan guarantees and tax credits for Missouri farmers interested in adding value to their agricultural products. For example, MASBDA awarded grants to three different ethanol plants for feasibility studies and eventually provided tax credits to the Missouri investors in the plants. According to the Missouri Corn Growers Association, the ethanol plants pay farmers an additional ten cents per bushel for their corn (This is in addition to the thirty cents per bushel the USDA estimates ethanol production adds to a bushel of corn.) Missouri ethanol plants now process 37 million bushels annually which equates to \$14.8 million in additional income annually. The three ethanol plants also support grain prices in the 20 counties that surround the plant. These counties produce 110 million bushels of corn annually.

The department is also successful in assisting value-added companies with developing and expanding export sales. In many instances, these exports have a direct positive impact on cash crop receipts. For example, the Department's Taiwan office is assisting a Taiwanese pork processor purchasing and remodeling a Missouri pork processing plant. The plant will initially process 20,417 metric tons of pork and export it to Japan. Because it takes one metric ton of soybean meal to produce one metric ton of pork, the plant's impact translated into 20,417 metric tons of additional soybean meal demand in Missouri.

The Missouri wine industry's vision is to grow over 2,000 acres of wine grapes and produce one million gallons of Missouri wine by 2010. Missouri wineries are also developing a new value-added product from surplus fruit that can be sold as fruit spirits or used to make fruit ports.

STABLE MARKETS / SAFETY NET

The department continues to provide a safety net for Missouri farmers regarding man-made situations that could bankrupt crop farmers even in expected profitable years. For example, the Department tirelessly monitors public grain storage facilities and grain buyers to protect farmers from unstable grain companies. The department also approves agricultural chemicals and chemical applicators to ensure agricultural chemicals do not damage crops or the environment.

REGULATORY PROGRAMS

By maintaining viable regulatory programs, our agricultural industries are able to access national and international markets that require various pest freedom standards to be met. Assurances that pest freedom standards have been met can open markets for a wide variety of agricultural products such as nursery stock, logs, lumber and other plant products. Through the eradication of harmful plant pests such as the boll weevil, Missouri farmers have been able to increase acreage devoted to cotton production while increasing yields.

Concerns

- The data does not address profitability. The value of the crops sold could increase and at the same time higher input costs could easily erode profitability. The department may help a farmer become more profitable by assisting in the development of an ethanol processing plant. Although the corn prices are low, farmers can still profit from the ethanol and by-products produced.
- Crop cash receipts do not and should not include U.S. government payments to farmers.
- As a result of recent WTO rulings, cotton subsidies will likely be reduced or eliminated as with some other crops due to the WTO and the U.S. budget pressures.

Other Sources of Information

Organic Crop Improvement Association—www.ocia.org

Food and Agricultural Policy Research Institute—www.fapri.org/main.htm

USDA Economic Research Institute—www.ers.usda.gov

Missouri Agricultural Statistics Service—www.agebb.missouri.edu/mass/

Data Table

Crop Cash Receipts

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	—Thousand dollars—									
Missouri	2,089,439	2,398,520	2,625,349	2,276,036	1,779,423	1,879,442	2,049,847	1,983,284	2,572,455	2,756,148
Iowa	6,257,863	6,695,283	7,353,691	6,277,551	4,923,588	4,949,162	4,747,198	6,220,602	6,854,676	7,368,773
Illinois	6,574,711	6,442,871	7,070,878	6,430,690	5,044,100	5,346,490	5,471,877	6,159,697	6,831,895	7,769,388
Kansas	3,074,021	2,971,250	3,654,840	3,391,059	2,454,800	2,535,144	2,515,364	2,772,306	2,959,676	3,082,659
Oklahoma	989,725	998,080	1,128,931	957,733	837,377	816,313	811,835	939,283	1,021,253	1,172,866

Source: USDA Economic Research Service

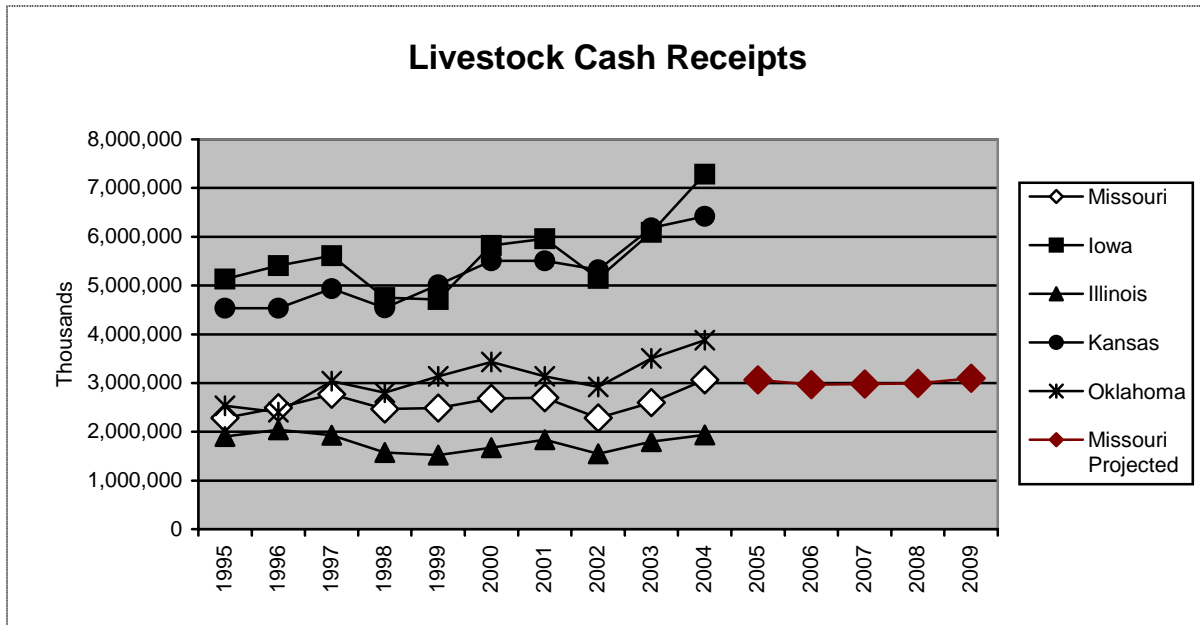
Description of Measure

This measure includes all food and fiber crops grown in the State of Missouri such as corn, soybeans, cotton, rice, vegetables, fruits, nuts, tobacco, seeds, Christmas trees, greenhouse and nursery stock.

Key Strategies:

1. Increase cash receipts from Missouri's specialty crops (e.g. tofu beans, Identity Preserved corn, organics).
2. Increase and/or expand the number and size of the state's value-added agricultural processing facilities.
3. Increase Missouri's livestock industry to utilize Missouri's growing grain production.
4. Standardize Missouri gasoline to allow reformulated gasoline augmented by 10% ethanol (RFGE) to be used throughout the state. MDA, in consultation with the Department of Natural Resources, will petition the U.S. Environmental Protection Agency to approve the statewide standard or opt-out of the federal program and establish a state RFGE program.
5. Encourage direct marketing by producers, grower groups, and producer-owned cooperative organizations. Assist these producers in establishing sales to both domestic and foreign customers.
6. Minimize losses to Missouri grain producers due to financially unsound or fraudulent practices of grain dealers or warehouses and provide grain producers with the ability to self-insure against warehouse and/or dealer failures.
7. Eliminate duplication of federal and state programs regulating the Missouri grain industry by entering into a cooperative agreement between the USDA and the Grain Regulatory Services program.
8. Maintain regulatory programs that provide certifications and assurances that allow plant products to enter into national and international markets.
9. Use enhancement credits for farmers as a means of improving erosion control and protecting crop production capabilities throughout the state.

Key Objective: Maintain at least \$2.9 billion in Missouri livestock sales through 2009.



Source: USDA Economic Research Service

Strategic Priorities

- Fully implement the Quality Systems Assessment (QSA) program. QSA is a premier value-adding program that has allowed Missouri to be the first state in the nation to receive USDA's audit approval for source and age verification of cattle. Missouri is the second largest cow-calf producer in the nation. This program will be a substantial revenue generator for the state by adding \$10 - \$50 per head for cattle that meet QSA standards for export.
- Expand participation in the Blue Ribbon Kennel program. Missouri's 3,000 licensed animal care facilities are a significant source of revenue and economic activity. MDA is working above the minimum standards to provide a higher quality of care for animals within this industry by providing incentives to producers with programs such as the Blue Ribbon Kennel program. The inspection, regulation, and licensing of these facilities helps ensure both animal well-being and the prosperity of this industry.
- Develop an individual animal identification database to ensure continued access to foreign markets while ensuring food safety and building consumer confidence. In addition to improving disease control and food safety, animal identification provides livestock producers with the information needed to improve breeding and management practices to ensure a better return for their products.
- Provide export counseling, market research, trade leads, and opportunities to meet international buyers, both here and outside Missouri.

Why This is Important

Missouri is home to a diverse livestock population, which produces revenue of over \$3.0 billion annually. Livestock production is important not only to the rural economy of Missouri but also to the state's overall economy. A strong livestock economy keeps producers on the farm and out of secondary jobs, which reduces unemployment. A strong livestock industry adds value to feed grain production and acts as a multiplier to the total rural economy, thereby adding jobs and increasing the state's tax base.

Trend Analysis

The value of livestock sales from 1995 through 2003 remained fairly stable at between \$2.3 and \$2.7 billion, with minor fluctuations due primarily to the cyclical nature of pork and beef demand. Notable exceptions are sustained growth in the poultry industry primarily due to increasing production and steady product demand. The second exception to the stable trend in livestock products is a rapid decline in a once strong dairy industry. In 2004, Missouri's cash receipts exceeded \$3 billion as strong demand more than offset a decline in exports.

How Missouri Compares to Others

From 2002 to 2004, Missouri experienced a 34 percent increase in livestock cash receipts. Only Iowa (41 percent) rose more over this period. Oklahoma (33%), Illinois (25%), and Kansas (21 percent) also experienced growth over this period.

Missouri ranks second nationally in beef cow production, fourth in turkeys, sixth in hogs, ninth in broilers and nineteenth in milk production. Missouri has land predisposed to livestock production and is geographically located to supply livestock products to the rest of the nation.

Factors Influencing the Measure

The value of livestock and poultry sales is influenced by numerous factors including cost of production, animal disease status, weather/climate, consumer demand, public relations/advertising, and the overall supply and demand factors of the industry. The Missouri Department of Agriculture (MDA) can significantly affect many of these factors by working with the livestock industry to ensure healthy, safe, high quality products and by adding value to Missouri livestock and their products.

Programs and Approaches to Address the Issue**Disease Control**

The department works to control and eradicate animal diseases that threaten the vitality of Missouri's animal agriculture and is prepared to respond to any animal disease that can negatively affect public health or limit the access of Missouri's livestock and livestock products to domestic or international markets.

Animal disease prevention and surveillance is an on-going priority. More than 6,000 Missouri deer were checked for Chronic Wasting Disease (CWD) and all were found to be negative. Two cases of Bovine Spongiform Encephalopathy (BSE) were found in the United States and is a serious concern to the U.S. and Missouri livestock industry. We have, in conjunction with the USDA, a surveillance program in place to reassure consumers with hard evidence that we do not have BSE in Missouri. We are also expanding our Avian Influenza surveillance and education programs to help prevent outbreaks and to maintain consumer confidence.

Agro-Security Program

We believe the biggest challenge in addressing agro-terrorism and animal disease emergencies is awareness. To help make key emergency personnel more knowledgeable, we have initiated a county level training course to help local officials prepare to respond to an animal agriculture emergency, whether caused by a natural or terrorist act. We will conduct the training in every county of the state. Our target audience is local emergency management personnel, practicing veterinarians, local health, law enforcement, and first responders. The training will assist the local county emergency manager in developing a local plan to assist the state and federal government in response to agro-terrorism or a major animal disease emergency.

The department has conducted its first NIMS/ICS training session to qualify our staff in the subject area. As prescribed by federal directive, all personnel who may be involved in an emergency are required to receive these basic training courses to build a unified and commonly trained force. We have achieved approximately 75% qualification of Animal Health Division personnel and will achieve 100% within the next year.

The Animal Health Division under direction of the state veterinarian has assembled emergency response trailers to aid our district veterinarians in a timely response to an incident, whether a natural or terrorist act. We are strategically placing these trailers around the state with a target response time of less than 4 hours from receipt of the initial report. The trailers are outfitted with necessary sampling and livestock handling equipment as well as needed survival items to allow the veterinarian to remain on the affected site for 3-4 days or until the needed assistance could arrive.

The department Response Plan will be exercised in the near future in conjunction with the SEMA exercise planning group agenda. The focus of near term exercises will be on the ability of the department to communicate with other agencies and the Emergency Operations Center. The department has a written plan for the development of its own emergency operations center and is seeking funds to achieve this goal.

Quality Assurance / Food Safety

The Division of Animal Health is working in cooperation with the USDA to implement the National Animal Identification Systems program. The program has three main goals: premise registration, individual animal identification, and an animal movement tracking database. The goal of the complete NAIS system is to trace any animal to its premise of origin within 48 hours of a potential disease outbreak.

The development of this program also helps ensure continued access to foreign markets while ensuring food safety and building consumer confidence. In addition to improving disease control and food safety, new animal identification methods can potentially provide livestock producers with the information needed to improve breeding and management practices to ensure a better return for their products.

Missouri's recent development of a Quality Systems Assessment (QSA) program incorporates many principles of the National Animal Identification System into an age and source verification program certified by the USDA. This program is a direct result of trade requirements imposed on the United States by Japan. These requirements are the result of the emergence of two cases of BSE in the United States. The voluntary QSA program will also provide tremendous economic incentives to all Missouri cattle producers.

Milk Safety

To ensure the safety of Missouri's milk products, the State Milk Board inspects, samples, and tests milk and its production and transportation modes for pathogens, toxins, inhibitors, adulterants, and compliance with adopted federal standards. In the 30 years since the creation of the State Milk Board, no milk produced in Missouri has been associated with a single disease outbreak. In addition to protecting the health of Missouri citizens, the State Milk Board has ensured the viability of the Missouri dairy industry by guaranteeing access to interstate markets.

State Meat Inspection

The Animal Health Division's State Meat Inspection Program encourages small livestock producers to work with existing slaughter processing plants to offer their products on a retail basis throughout the state of Missouri. Retail marketing of these products allows producers to add tremendous value to the products. The inspection of slaughter plants also ensures food safety for consumers throughout the state. The USDA/FSIS funds 50 percent of the program's costs in exchange for state enforcement of USDA rules and regulations. The program has opened new market opportunities for sales of meat and poultry within the State of Missouri. This program continues to expand as funding becomes available. The number of plants operating in Missouri has increased, and more plants are on a waiting list pending increased capacity within the state inspection program.

Animal Welfare

Missouri's 3,000 licensed animal care facilities are a significant source of revenue and economic activity. The inspection, regulation, and licensing of these facilities helps ensure animal well-being. MDA is working above the minimum standards to provide a higher quality of care for animals within this industry by providing incentives to producers with programs such as the Blue Ribbon Kennel program. Value-added programs like the Blue Ribbon Kennel also significantly increase the economic potential of the industry.

Environmental Assistance

Environmental issues (e.g. nutrient management, Total Maximum Daily Loads (TMDL), permitting, proper disposal of waste water, etc.) are increasingly important to the sustainability and expansion of animal agriculture in Missouri. Technical assistance on these issues helps livestock producers overcome communication and administrative barriers that may otherwise prevent them from locating, expanding, or even remaining in business in Missouri.

Business Development

The Agriculture Business Development Division focuses on production, promotion, business counseling, training, and financing to increase the demand for Missouri agricultural commodities, products, and businesses. Business and industry development focuses on the economic development of livestock businesses in Missouri. The division also partners with DED and local economic/community developers to identify potential sites, develop feasibility plans, solicit potential businesses and producers, and obtain the financial resources necessary to implement projects. While other organizations offer various pieces of the plan, no other single organization in Missouri offers the expertise and complete business development services found within the division.

Marketing Assistance

The department works with producers, commodity associations, market owners, and buyers to increase the value and sales of livestock in a number of ways. Department personnel work to

increase genotypic and phenotypic quality through programs that set minimum criteria for replacement heifers. Specialists also work with producers to promote the use of good management practices, such as vaccination programs, commingling, weaning, and quality assurance guidelines that increase the value and sales of feeder cattle. Department personnel work to educate and inform consumers and producers alike on livestock production, practices, regulations, and other concerns that affect Missouri's livestock industry.

Market news reporters work closely with USDA staff to issue daily and weekly livestock market information. Producers have access to the latest prices for most classes of livestock, allowing for accurate, well-informed marketing decisions. The Missouri Department of Agriculture market news service also strives to make the markets as accessible as possible, through the use of new technologies.

The International Marketing Program provides export counseling, market research, trade leads, and opportunities to meet international buyers, both here and outside Missouri. The International Marketing Program also operates a trade office in Taiwan and collaborates with economic development offices in China, Japan, and Mexico.

Concerns

- Consumer demands for food safety and quality continue to increase. Most of these demands will require the producer to make considerable additional investments to remain a viable supplier of meat or milk.
- Environmental regulations may continue to increase the cost of producing livestock.
- The introduction of a foreign animal disease into the U.S. animal population could cause tremendous losses to all facets of the livestock industry. For example, in the first year of the United Kingdom’s BSE crisis, the total economic loss from BSE was estimated at US \$1.2-1.6 billion.
- County health ordinances could diminish Missouri’s important livestock industry.

Data Table

Livestock Cash Receipts

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
	—Thousand dollars—									
Missouri	2,284,533	2,497,101	2,771,776	2,468,654	2,485,076	2,681,455	2,694,947	2,283,782	2,596,057	3,062,579
Iowa	5,130,421	5,406,182	5,613,082	4,753,474	4,713,211	5,824,102	5,957,966	5,145,988	6,087,305	7,284,172
Illinois	1,905,491	2,038,953	1,928,400	1,573,556	1,524,839	1,672,432	1,835,631	1,548,915	1,797,858	1,938,915
Kansas	4,533,816	4,537,434	4,935,638	4,538,646	5,012,108	5,505,016	5,505,253	5,323,099	6,180,413	6,420,069
Oklahoma	2,534,639	2,399,646	3,035,931	2,802,839	3,135,890	3,434,249	3,139,065	2,923,271	3,505,675	3,881,704

Source: USDA Economic Research Service

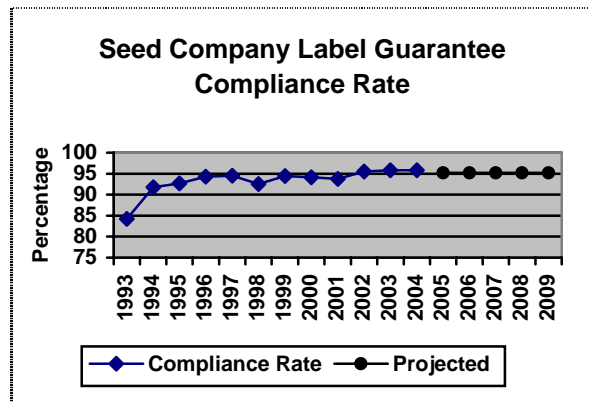
Description of Measure

The measure includes all farm level cash receipts from sales of livestock, including cattle, hogs, sheep, dairy products, poultry and eggs, honey, horses, wool, aquaculture, and other livestock.

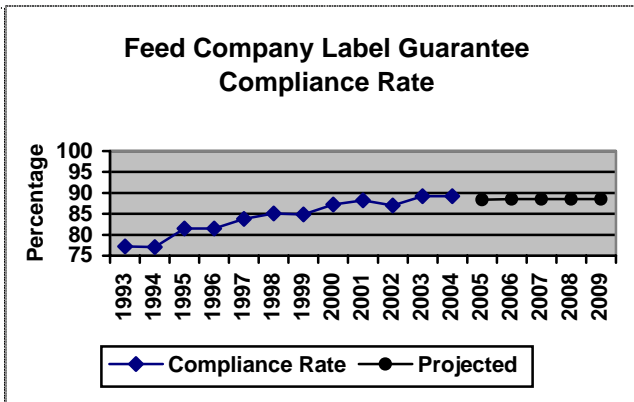
Key Strategies

1. Maintain disease-free state classifications for bovine tuberculosis, bovine brucellosis, swine pseudorabies, swine brucellosis, and poultry Pullorum-Typhoid through 2008.
2. Prevent the incidence of Chronic Wasting Disease, Avian Influenza, and Bovine Spongiform Encephalopathy (BSE) and increase preparedness for these and other diseases by expanding the Agro-Security program.
3. Encourage the development of a voluntary livestock identification system in Missouri that will provide economic incentives to producers and help ensure a safe food supply to all Missourians.
4. Ensure all dairy products produced in Missouri are safe and wholesome and the dairy industry is current with emerging concepts and technologies that contribute to safe production and handling of milk and milk products.
5. Promote Missouri livestock at the commodity, product, and business level.
6. Provide producers with new opportunities that add value or increase the marketability of their products and keep producers and the general public informed of emerging production practices and regulation changes.
7. Educate all Missourians on the value and quality of Missouri's animal programs and products and their importance to the state's economy.

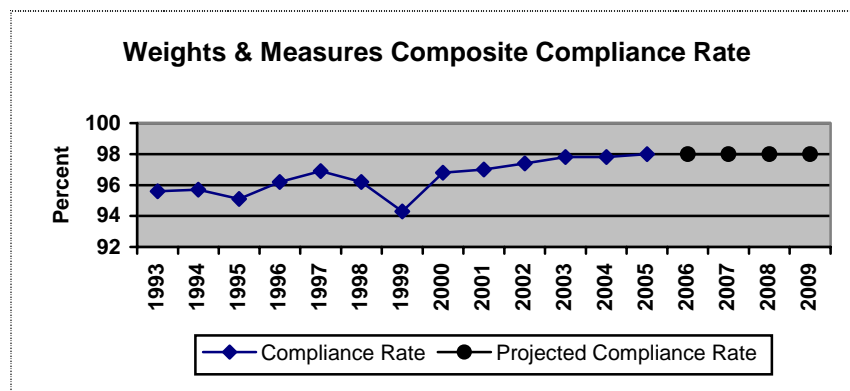
Key Objective: Improve producer and consumer protection.



Source: Summary Report Seed Insp. 1992-2004



Source: Summary Report Commercial Feed Insp. 1992-2004



Source: Division Inspection Records

Strategic Priorities

- Combine an extensive communication and education effort with regular surveillance and enforcement actions. MDA staff takes time to explain requirements and provide technical assistance to help companies gain compliance. Staff enjoys a cooperative working relationship with the majority of the regulated community.
- Promote compliance through initiatives like the feed program's Excellence in Compliance Award. In addition to providing process improvement consultations, the program has started to recognize feed companies with an Award of Excellence if they achieved at least a 90 percent compliance rate. Companies receiving the award have begun to use it as a marketing tool. The number of companies meeting the requirements for the award has increased 83 percent since the award's inception -- from 80 in 1998 to 147 in 2005.

Why These Measures Are Important

Regulatory activities maintain a level playing field in the marketplace and promote economic growth for agriculture. Surveillance of livestock, feed, seed, commercial weighing devices, harmful plant pests, pesticide use, and other agricultural products and commodities provide protection for consumers and producers by ensuring that established guidelines are followed. Assurances of the quality and safety of agricultural products bolster consumer confidence and

promote economic prosperity. The U.S. Department of Commerce estimates that the sales of products or services impacted by weights and measures laws in the United States total over \$4.5 trillion, which represents 52.8 percent of the U.S. Gross Domestic Product (1998 figures). Regulatory compliance is gained through a combination of regular surveillance, communication, and education of industry/businesses.

Trend Analysis

Seed Label Guarantees: Excluding 1993, seed label compliance has consistently averaged between 92 and 96 percent during the 1990s. In 1993, floodwaters covered the state's major crop fields and significantly reduced overall seed quality.

Feed Label Guarantees: Overall feed label compliance has increased steadily since 1994. Beginning in 1995, the program began a critical review of compliance rates. Companies that were consistently below the mean compliance rate received additional attention and assistance in their compliance efforts. Since 1994, the overall compliance rate has increased 10 percentage points.

Commercial Weighing and Measuring Devices: The annual compliance rate for commercial weighing and measuring devices in Missouri has remained fairly consistent between 95 and 98 percent since 1993. There was a slight decline in compliance rates in 1999 to 93.9 percent due to enactment of more strict requirements for propane and refined fuels meters. Compliance rates for 2000 returned to 96.8% indicating the industry had adjusted to the new requirements. Since 2000, the composite compliance rate has gradually increased to 98.0% in FY 2005.

How Missouri Compares To Others

Feed and Seed: It is difficult to make comparison to other states' compliance data because standards for violations vary from state to state. Nevertheless, review of seed inspection compliance rates presented at the 2004 North Central States Seed Control Officials Association revealed compliance rates ranging from 82.5% to 99.1% for thirteen states. In comparison, Missouri had a 95.8% compliance rate for seed.

Since animal feed is produced with various ingredients it requires a comprehensive quality control program which creates a complex compliance issue. Kentucky reported 84.2% and Texas reported 79.1% overall compliance rates for feed in 2004. Missouri reported 89.2% overall compliance rate for feed in 2004, with withdrawals from distribution issued for all violations.

Weights and Measures: Collecting compliance rates from different states has been difficult because weights and measures inspections are not always contained within the same department. Some states have consumer affairs agencies, commerce departments, and environmental science departments that split up the weights and measures duties performed by the Missouri Weights and Measures Program. Annual reports of weights and measures activities are not widely published. However, the Illinois Bureau of Weights and Measures administers approximately the same programs as Missouri. According to the 2004 annual report, Illinois officials inspected 125,815 devices with a composite compliance rate of 94.0% compared to Missouri's inspection of 166,622 devices with a compliance rate of 97.8%.

Factors Influencing the Measures

Compliance rates can be impacted by changes in regulations or guidelines. When changes are initiated, it can take time for industry to adjust and comply with new standards.

Another factor influencing compliance rates is special investigations stemming from a reported problem. Focusing on a problem can cause compliance rates to drop initially as inspectors make a point to check on devices or commodities that have been known to be out of compliance. Over the long term, however, compliance is expected to improve as a result of these investigations.

The level of technical assistance can also affect the measure. For example, the feed program directly influences compliance rates by reviewing the formulas, mixing procedures, and manufacturing practices that feed companies use to produce their products. By partnering with these companies and providing consultant-like services, manufacturing efficiencies, firm profitability, and compliance rates all improve.

Programs and Approaches to Address the Issue

To ensure compliance, the department combines an extensive communication and education effort with regular surveillance and enforcement actions. MDA staff takes time to explain requirements and provide technical assistance to help companies gain compliance. Staff enjoys a cooperative working relationship with the majority of the regulated community.

The feed program's Excellence in Compliance Award is an outstanding example of the effectiveness of this approach. In addition to providing process improvement consultations, the program has started to recognize feed companies with an Award of Excellence if they achieved at least a 90 percent compliance rate. Companies receiving the award have begun to use it as a marketing tool. The number of companies meeting the requirements for the award has increased 83 percent since the award's inception -- from 80 in 1998 to 147 in 2005.

Concerns

Advances in technology have increased the possibility of tampering/modifying commercial weighing and measuring devices. Regular surveillance may need to be bolstered with undercover investigations to ensure commercial devices are being used correctly and appropriately. The rising costs of commodities, such as gasoline, have increased consumer awareness regarding measurements. The division needs to be able to assure consumers they are getting what they pay for.

The length of time between inspections is a concern in some programs. The Bureau of Feed and Seed, for example, has only four inspectors to cover the state. Drive time and increased duties, such as BSE inspections, dictate that not all companies will be inspected every year. The Plant Pest Control Program targets only 30% of all licensed nursery dealers for annual inspections for harmful plant pests. Only 20% of licensed timber dealers are targeted for inspection annually. If the combination of unannounced inspections and technical assistance results in better quality and safer product for the Missouri consumer, additional staff may be warranted.

Other Sources of Information

Missouri Department of Agriculture/Weights and Measures Division – www.mda.mo.gov
National Institute of Standards and Technology/National Conference on Weights and Measures
-- www.nist.gov/owm

Illinois Department of Agriculture/Weights and Measures Annual Report - 2004

Data Table

Compliance Rates

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Weights & Measures	96.2	96.9	96.2	94.3	96.8	97.0	97.4	97.8	97.8	98.0
Feed	81.5	83.8	85.1	84.8	87.3	88.2	87.0	89.3	89.2	88.4
Seed	94.3	94.5	92.5	94.5	94.1	93.7	95.5	95.8	95.8	95.2

Source: MDA Program Data

Description of Measure

Compliance rates are calculated by dividing the number of inspections that meet regulatory requirements by the total number of inspections. The Weights and Measures Composite Rate includes measures for the following items: scales, taximeters, scanned items, service station pumps, refined fuel truck and plant meters, terminal meters, LP gas meters, fuel quality samples, and moisture meters.

Key Strategies:

1. Conduct label reviews, formula checks, service samples, re-inspections, product compliance reviews, and follow-up on withdrawal and stop-sale orders in order to increase the percentage of companies meeting feed label guarantees to 89 percent and the percentage of companies meeting seed label guarantees to 95 percent.
2. Follow up on rejected weighing and measuring devices with rechecks within 30-60 days of initial inspection to certify compliance.
3. Monitor Placing in Service Reports to ensure that newly installed weighing and measuring devices meet the requirements established by the National Type Evaluation Program.
4. Continue to provide educational presentations/workshops to service technicians and regulated businesses to educate them about requirements.
5. Conduct surveillance for detection of harmful plant pests and monitor the sale and use of pesticides.
6. Work with industry representatives to explore funding alternatives for the propane safety program.