

Growing **IN** Agriculture



Taking Stock in

**INDIANA'S
FUTURE**



Funded by the Indiana Soybean Alliance
and the soybean checkoff to build
demand for Indiana soybean meal.

Livestock – #1 Customer for Soybean Meal



98% of U.S. Soybean Meal Consumed By Livestock & Poultry

Livestock and grain farmers are the lifeblood of our rural communities. However, in recent years, animal agriculture has faced pressure from activists over issues like animal welfare, odor and environmental concerns. Since U.S. livestock and poultry consume 98 percent of U.S soybean meal, struggles of the animal agriculture industry are felt by the U.S. soybean industry as well.

Indiana soybean farmers understand the vital importance of their number one customer and have made growing the state's livestock industry a top priority of the Indiana Soybean Alliance's (ISA) soybean checkoff strategic plan.

Soybean meal serves as the leading source of protein for livestock and poultry. The soybean checkoff invests in research to make soybean meal an even healthier feed option. While soybean meal is not a primary source of energy in animal feeds, the new demand for corn for biofuels warrants research to improve the level of nutritional energy provided by soybean meal. The soybean checkoff helps to fund that research, as well as research to develop feed solutions to maximize animal digestion efficiencies and reduce environmental impact.

Livestock and Poultry Pump Money into Rural America

Finding ways to increase economic growth in rural America is a challenge most states face. However, the answer may have been in the rural communities all along, in the form of livestock and poultry producers.

Indiana livestock and poultry producers purchase nearly 900,000 tons of locally grown soybean meal to feed their dairy cows, beef cattle, chickens and hogs. And, that's just part of their economic impact. They also account for over 42,000 jobs statewide. And generate more than \$210 million in tax revenue.

Nationally, animal agriculture created over \$74 billion in earnings that resulted in over \$400 billion in economic output in the United States. This means that animal agriculture and related industries generated \$400 billion into the economy. Livestock and poultry production created 2.9 million jobs in the United States, according to the Animal Agriculture Economic Analysis Update, a report by Promar International for the United Soybean Board (USB). To put the economic output in perspective, the automotive industry accounted for \$344 billion in 2002, according to a report by the Center for Automotive Research.

Indiana Home To Vibrant Soy Processing Industry

Indiana is blessed with a strong soybean processing industry. Indiana soybean farmers have strong local markets for soybeans that include plants owned by ADM, Cargill, Bunge, Rose Acres Poultry Farms, and Consolidated Grain & Barge. These plants, in communities like Frankfort, Decatur, Lafayette, Morristown, Seymour and Mt. Vernon, are providing hundreds of jobs in rural communities as well as providing a locally-produced supply of soybean meal for our livestock industry.

A strong and growing soybean industry and livestock industry are yielding more growth and investment in our industry. In 2007, the international company, Louis Dreyfus, will open one of the country's largest soybean processing and biodiesel facilities in Claypool, Indiana. This new plant, alone, will produce an additional one million tons of soybean meal a year. When Dreyfus picked Indiana as the site for their \$100 million investment, they did so knowing there was a growing livestock industry. ■



The Indiana Soybean Alliance (ISA) invested state soybean checkoff funds in a marketing campaign that got right to the meat of the matter – our food supply. The intent of the campaign was to raise public awareness and support a positive business climate for soybean and livestock farmers in the state, and more specifically, in your community.

Pigs and Chickens Are Just Like Flying Soybeans



Meat Exports Pump Up Soybean Farmer Profits

When you think of what drives soybean farmers' profits, you probably think of biodiesel, edible soybean oil and exporting soybeans to foreign markets. These certainly contribute to soybean farmers' profits, but so do red meat and poultry exports.

Adding Value

While many people consider meat as competition for soybeans, the fact is, "One of the best ways to add value to our soybeans and soybean meal is to feed it to livestock and poultry," says Mike Beard, Indiana Soybean Alliance Demand chairman and a soybean and pork producer from Clinton County. "Once the poultry, meat and eggs have been exported, the money comes back in and creates more economic activity for this country than merely exporting soybeans."

Basically, exporting U.S. meat, milk and eggs is just an indirect way of exporting more soybean meal, since nearly all of U.S. soybean meal is fed to U.S. livestock and poultry.

In 2005, more than 45 million bushels of soybeans were exported in the form of poultry and eggs, according to USA Poultry & Egg Export Council (USAPEEC).

More than 54 million bushels of soybeans were exported through U.S. red meat exports in 2006, which is a 550 percent increase since 1990.

Every pound of U.S. pork exported represents the utilization of 1.3 pounds of U.S. soybeans, and in 2006 there were 2.3 billion pounds of pork exported.

Protecting Our Number One Customer

Support starts right here at home. "The first thing we can do to improve meat and poultry exports is to help our livestock and poultry farmers expand their operations in the United States," says Beard.

Protecting the domestic animal agriculture industry is vital because nearly all U.S. soybean meal goes to feed U.S. livestock and poultry. Our support ensures there will be a market and sufficient supply for U.S. soybean meal. ■

Value of Meat and Poultry Exports To Soybean Farmers

Did You Know...

- Projection from 2007 to 2015 shows meat exports will continue to add significantly to soybean meal utilization.
- Over the next eight years, meat export projections represent an additional 80 million bushels of indirect soybean exports.
- The U.S. dominates the pork import market in Mexico, with an 83 percent market share in 2004.
- Domestic livestock and meat production represents the single largest use of U.S. soybeans.
- Over the past three decades, export sales of U.S. meat have been the fastest-growing utilization of U.S. meat.

- The soybean checkoff has partnered with the U.S. Meat Export Federation and USA Poultry and Egg Export Council for the last decade to red meat and poultry exports.
- The volume of soybean meal used by the U.S. poultry industry is about the same as the entire soybean production of the state of Illinois. (Illinois produced 500 million bushels, and the U.S. poultry industry used 565 million bushels.)

- The U.S. poultry industry consumes 565 million bushels, or 9 million acres, of soybeans.

- To produce 1 pound of chicken, it takes 1.97 lbs. of feed. Broiler production requires 90 billion pounds of feed with 20 percent coming from soybeans. To produce 1 pound of turkey, it takes 2.5 lbs. of feed with 20 percent coming from soybeans. To produce 1 dozen shell eggs, it takes 3.5 lbs. of feed with 34 percent coming from soybeans and vitamins.



I'm a beef producer.

I'm a soybean farmer.

Together, we raise our community's standard of living. Animal agriculture is the soybean industry's number one domestic customer. Indiana beef, dairy, pork and poultry producers purchase nearly 900,000 tons of locally grown soybean meal to feed their livestock. And they generate more than \$210 million in tax revenue.

A strong animal agriculture industry in Indiana helps ensure a better living for soybean farmers and the entire rural community. By supporting livestock producers, we help ourselves.

www.animalag.org
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[30421 Beef EN-PW 06/07]

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INDIANA SOYBEAN ALLIANCE
Our soybean checkoff.
Efficient. Efficient. Farmer-driven.

Why are farms getting larger?

In order to make a full-time living, Indiana family farms have had to grow.

Many people look back fondly on the “good old days” of farming. This was a time when most farm families grew corn, soybeans, wheat and oats, and raised everything from chickens to pigs to beef and dairy cows – all on a single, small farm. It was only 40 years ago that farmers could make a respectable living for themselves and their families on this type of farm.

Like other businesses in the U.S., farming has had to adapt to keep up with the times. With increased global demand, increased world competition, and increased costs of doing business, farmers have had to become more efficient in order to stay competitive.

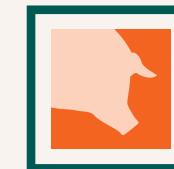
Because of these changes, today’s farms have become larger and more specialized. Many livestock farmers no longer grow their own grain for feed. Instead they rely on local farmers to provide them with the grain they need. They also focus exclusively on raising one type of livestock – producing poultry, pork, dairy or beef – allowing them to maximize inputs and produce better tasting, more consistent products.

Larger operations also mean more resources can be devoted to making sure the right technology and farming practices are used to protect the environment and care for the animals. In short, specialization lets farmers focus their time, money, and energy on a single goal – producing the best livestock as safely and economically as possible.

One important fact to remember is that even though farms are larger today, the vast majority of Indiana’s 60,000 farms are still family-owned and operated.

While it’s undeniable that the business of farming has changed, some things remain the same. In Indiana, farming plays an important part in both our heritage and our future. Agriculture is still the backbone of many rural communities around the state, and the families that run these farms, whatever their size, are still very much a part of these communities. ■

Raising Pigs: A Beard Family Tradition



Clinton County farmer Mike Beard can’t remember a time when his family didn’t raise livestock. “My grandpa raised hogs, but Dad switched to dairy,” recalls Beard.

After earning his degree in ag economics from Purdue, Beard worked for a period of time as an ag banker, but the lure of tilling the soil and tending livestock drew him back to the farm.

“I started out dairy farming with Dad, but then spun off into my own operation,” recalls Beard. “The time spent with Dad allowed me to be mentored well.” Over time, Mike and wife Pam transitioned from dairy to beef cattle, and eventually into hogs.

Today Beard, son David, son-in-law Chris Pearson, Mike’s two step brothers and some additional employees annually produce 37,000 hogs, most in attractive, new state-of-the-art facilities. They also raise 1,600 acres of corn and soybeans, and have recently developed a related manure-application business.

Beard and his family are proud to be hog farmers and consider themselves professionals in their chosen occupations. But Mike concedes that there’s one area livestock farmers aren’t good at. “Farmers tend to be introverts,” says Beard. “We’d rather spend our time working with our animals than telling our story.”

As a result, much of what people hear about hog farmers comes from the picture painted by their critics—faceless, impersonal, huge “factory farms” run by big corporations, concerned only with making a profit. They pollute the environment and mistreat their animals, ruin the neighborhood and property values with their smell.

The reality is quite different. Most Hoosier hog farms have been family operations for generations. They are well managed by people who care deeply about the environment and raise their animals humanely; while working hard at being good neighbors and citizens.

Economic Contributor

Mike and the many other Clinton County hog producers annually generate millions of dollars of economic activity in their communities. Beard estimates that in today’s dollars, their farm has invested about \$3 million in facilities. With annual property taxes at \$40,000 and rising, utilities (electric and LP) costing \$120,000 per year and annual soy biodiesel bill at \$60,000, the farm regularly write checks totaling about three quarters of a million dollars per year to 35 or so primarily local vendors and suppliers.

The biggest suppliers supported by Beard and other livestock producers are their grain-farming neighbors. Mike indicates that an operation of their size is “way short of enough corn and soybeans to produce our feed.”

Good Stewards, Good Neighbors

When it comes to taking care of the environment, Beard feels they are actually doing a better job than previous generations. With the help of various government conservation programs, he has been able to initiate conservation practices like planting trees, doing woodland improvements, and creating grass buffer strips along waterways. Beard’s farm also practices as much no-till planting as possible, which helps to prevent soil erosion.

By using hog manure as an organic fertilizer, Beard’s operation can supply all the nutrients needed for 1,200 acres per year, eliminating the need for commercially-produced fertilizer on those acres.

With the growth of the family’s manure hauling and application business, Beard says they’ve developed a no-till manure injection technology that essentially reduces odor from manure application to zero. Their manure handling technology is proficient enough that IDEM now calls them when they need assistance with a spill, even of an industrial or municipal nature. Beard indicates that they intend to be one of the first to earn one of the State Chemist’s new manure applicator certifications.

In the matter of humane treatment of his animals, Beard states that, “...it would be pretty silly of us not to do the best possible job of taking care of our animals.” The pigs are kept in controlled environments, where the temperature never gets below 68 degrees, with heat, fans, or misters as needed. All farm employees are Pork Quality Assurance Level III certified for appropriate care and handling of the animals. Truckers who haul their hogs are likewise Trucker Quality Assurance certified.

Family Matters

“I want our children and grandkids to have a better environment than I had,” relates Beard. “They breathe the air from the farm, drink the water from the wells—and my grandkids are some of the healthiest kids I know.” ■

L-R: Son-in-law
Chris Pearson,
Mike Beard and
David Beard



Even owners of farms with sales less than \$499,999 make less net income than the average U.S. household net income of \$59,083.

Source: 2003 USDA Agricultural Resource Management Survey; Economic Research Service, USDA.

Milking Cows: A Sevenhuysen Family Tradition



Like most Hoosier dairy farmers, Henk Sevenhuysen's family has been milking cows for generations (four, to be exact). Unlike most of his peers, however, the previous three generations did their milking in the Netherlands. In 2003, Henk and Linda started up a 1,250 dairy cow, state-of-the-art operation in northern Benton County.

While Henk is a professional at milking cows, and proud of the milk he produces, he concedes there is one area he and fellow livestock producers aren't good at. "99.9 percent of us are doing a good job, but we're not good at telling our stories," says Sevenhuysen. "That makes us easy targets for those who are opposed to what we do."

Coming to America

Henk always knew he wanted to be a dairyman, and earned a degree in animal science in the Netherlands. For a time he farmed with his dad, but that could not support two families long term. In the Netherlands there is a "quota system," whereby a dairy farmer has to buy his right to produce milk, but it costs so much that a farmer can't make any money by expanding. This left Henk and Linda with some tough choices—be locked into a no-win situation, or leave their native country.

Henk has discovered that expansion is a necessity. "People here and everywhere want good, inexpensive food," notes Henk. "The prices farmers receive for their products really don't go up much over the long run, while their costs do. The only way to survive is to grow."

Economic Contributor

A by-product of the Sevenhuysens' coming to Benton County is that their dairy is a substantial contributor to the local economy. Just a few examples include: Henk has about \$7 million invested in his facilities; his

gross annual payroll runs close to \$400,000; he pays \$40,000 per year in property taxes; and his electric bill runs from \$6 to 7 thousand per month.

Henk states that 75 to 80 percent of his business expenditures are made within a 30-mile radius. "Our home and work are both in Benton County," notes Henk. "We like to do as much of our business locally as we can."

Doing Things Right

When it comes to stewardship of the environment, "... just 'doing your best' doesn't cut it," says Sevenhuysen. "What matters is doing it right."

A big part of "doing it right" is managing the application of manure produced by his cows. Henk and other livestock producers know that manure, applied to the soil in a responsible manner, is not a waste product but is actually a high-quality organic fertilizer. Manure from Henk's cows is applied on the farms that produce his corn silage and alfalfa, where it replaces the need for commercially-produced fertilizers on hundreds of acres.

"Manure is not only high in nutrient value, it is also rich in organic matter," explains Sevenhuysen. "I know some more farmers who'd like to have manure for their farms, but we just don't have enough."

To make sure Henk and others like him are being environmentally responsible, a host of watchdog agencies, including the Indiana Department of Environmental Management (IDEM), Environmental Protection Agency (EPA), and Board of Animal Health (BOAH), require detailed records. They also drop in for unannounced inspections.

For Sevenhuysen, being good to his cows includes things like high-quality feed, comfortable stalls, fans and sprinklers for hot weather, daily health checks, medicated foot baths (Henk calls them "pedicures") and more.

Henk's dairy has been recognized as a "Five Star Dairy" and "Friend of the Environment" for the past two years by the Dairy Quality Assurance Center.

Family Matters

Although Seven Hills Dairy is a large operation, it is still very much a family business.

"Linda does all the bookkeeping, the payroll, the financial aspects," says Henk. "We have to be a good team. Without her, I couldn't do this."

Even the couple's children, Peter, 9, and Sharon, 6, get into the act, but one of Henk's most satisfying experiences since coming to Indiana occurred when his parents came over to visit shortly after Henk and Linda started up. "My dad told me he felt we'd done a good thing by coming to America, and that he was proud that we can carry on the family tradition," relates Henk. "That's a good feeling." ■



L-R:
Henk, Pete,
Sharon and Linda

Family Tradition Continues at Midwest Poultry Services



The Strauss family of North Manchester, Indiana has been in agriculture since 1875. That's when they built a grist mill on the Eel River to grind livestock feed and flour for local farmers.

A lot has changed since then, both on and off the farm. But one thing hasn't—the Strauss family is still working with farmers, and still making feed—on the very same farm where they started.

In 1968, in response to changing trends in farming, the family diversified into egg production. Over the years that part of the business has grown to now include 6 million laying hens, with operations in Illinois, Indiana, and Ohio. Midwest Poultry Services, L.P., (MPS) headquartered in Mentone, is now one of the nation's 15 largest egg producers.

In agriculture, as in other industries, size attracts critics. You've heard it—"factory farms" pollute the environment; they mistreat their animals; they ruin their neighborhoods and property values with their smell. In short, they're a nuisance that should be regulated out of business. MPS's CEO Bob Krouse has no problem responding to his industry's critics.

"Come talk to us," says Krouse with all sincerity. "I'm excited about what we do, and I'd be happy to explain why we do it—and why efficiency (including 'being big') is a good thing."

Local Economic Contributor

One group that benefits from MPS's size is local grain farmers. Each year the 2.5 million hens that comprise MPS's Indiana operations (housed primarily in Wabash County) consume 35,000 acres of local corn and soybean meal.

And that's just the beginning. MPS employs over 125 people in Wabash and Kosciusko Counties. The company also relies heavily on local businesses for trucking, veterinarians, building and excavating contractors, electricians and other skilled trades, concrete and aggregate vendors and more.

Krouse estimates that MPS has spent over \$16 million locally on Wabash County facilities construction and upgrades in the past ten years. The company also pays about \$210,000 annually in property taxes, which support local schools and roads.

Even the chicken manure from MPS's operations contributes to the local economy.

"When we adopted our manure-drying technology from Europe, it greatly reduced odors and the manure became much easier to handle," explains Krouse. "Now we sell it to North Central Co-op, which distributes it as a high-quality, organic fertilizer. Then it goes right back to 11,000 of those corn acres, where it replaces the need for commercially-produced fertilizers."

Caring for Animals and Environment

In today's climate, controversies between large livestock producers and their opponents frequently generate more heat than light. Again, Krouse responds to those who would criticize large producers' care for their animals, including the use of cages.



"Bring in your science, and we'll bring ours," says Krouse without hesitation.

He explains further that in the late 1990's, the American egg industry (United Egg Producers or UEP) pro-actively developed a set of

national animal welfare standards, based on the best science it could find. As a result, today approximately 85 per cent of all producers follow these stringent guidelines in order to become "UEP Certified." Quality assurance for these standards is verified by an independent third party.

Krouse also works to educate people about how eggs are produced. Recently MPS partnered with a Fort Wayne PBS station to produce *Eggs: A Video Field Trip*. The video has been shown in classrooms, where it has been well received.

MPS strives to cultivate good environmental practices, including recently planting 3,000 trees at its Indiana operations. The company is also participating in a national EPA air quality study.

Not Your Grandpa's Chicken Farm

Many people today have a nostalgic image of farming in "the good old days." But according to Krouse, it really wasn't all that good.

"Going back to outdoor production would be a huge step backward in animal welfare," states Krouse.

He explains that 50 years ago, hen mortality ran over 25 percent, with many birds dying from disease, parasites and predators. In today's enclosed systems, that rate has decreased to five percent. Many of the diseases and parasites of the past have been largely eliminated, and some new ones (avian flu) prevented.

And while the size of egg farms has increased greatly, so have the stores that sell eggs to the consumer.

"Today's large distribution centers take the eggs from over one million birds per day—and they only want one supplier taking care of their warehouse," notes Krouse. "If you can't take care of the needs of a giant customer, you'll be gone."

Despite the many challenges facing egg producers today, Krouse is pleased to provide the public with a quality product.

"Ninety-five percent of the customers appreciate the familiar "Grade A" eggs for being a safe, high-quality, inexpensive, and nutritious source of protein," says Krouse. ■

Beef: It's What They Do

At Sennett Farms Cattle Company



According to Clark Sennett of Waynetown in western Montgomery County, he and wife Nancy really didn't choose raising beef cattle as a vocation. "It just kind of chose us," laughs Clark. "We were raised around it, and it was a way of life for us from day one. My great granddad fed cattle in Nebraska, my granddad fed cattle in Illinois, and after World War II my dad (Merle, now 89) started farming and feeding cattle here. Nancy's grandparents raised cattle too."

Today Clark and son Lance, with plenty of behind-the-scenes help from Nancy and Lance's wife Margaret, operate a large diversified farming operation that produces corn, soybeans, wheat, hay, and pasture. They also produce 3,000 hogs per year. But the heart of the Sennetts' livestock operation is beef cattle. They annually finish (feed for the retail beef market) about 2,000 head, and have a herd of 250 cows that produce calves. That's many times bigger than anything Clark's granddad and great granddad ever imagined.

Some critics would say that's too big. That today's large "factory farms" pollute the environment, mistreat their animals, and ruin the neighborhood and property values with their smell. That they're a liability and a nuisance in their communities.

The truth is, nothing could be further from the truth. Most Hoosier livestock operations are family farms that have been in those families for generations. They are well managed by people who care deeply about the land, the environment, their animals, and their local communities.

Farming In the 21st Century

To some people, the "ideal" farm would be what they see on a 19th century Currier & Ives print—a few cows grazing contentedly with their calves by their sides, next to the haystack by a red barn. But like most industries, raising livestock has changed considerably over the years.

"Farming today is very competitive," says Clark. "You have to be bigger today to stay in business. If you're not, you can't make a living." As a result, today Clark and Lance's beef feeding operation is designated as a concentrated animal feeding operation (CAFO).

Today's livestock operations are managed by professionals, in buildings that protect the animals from the weather, disease, and predators. These modern buildings, regulated by the Indiana Department of Environmental Management (IDEM), are actually "zero-discharge facilities"—meaning that there is no manure discharge or runoff, which is actually much better for the environment than in the "good old days."

Building Block of Local Economy

Today Clark and Lance's operation supports both families. But the economic benefits don't end at the farm gate. An operation the size of Sennetts' supports a wide variety of businesses throughout the area.

"I can't tell you how many area establishments we do business with, but there are a lot of them," states Clark. "And about 98 percent of them are within a 10-mile radius, including suppliers of our equipment, livestock feed, and vehicles."

In the past few years, Clark says the farm has invested about \$600,000 in building upgrades and equipment. They employ one full-time employee and three part-time in the spring and fall. Their yearly electric bill runs about \$10,000 and they pay over \$60,000 annually in property taxes, which support local schools and roads.

Doing Things Right

Large livestock producers today are professionals who take their vocation seriously. Clark studied animal science at Purdue University, and Lance earned an associate's degree in animal science from the University of Western Kentucky. Lance is currently on the National Limousin (cattle breed) Board, while Clark is a past president of the Indiana Beef Cattle Association. Both are BQA (Beef Quality Assurance) and IQ+ (Indiana Quality Plus) certified.

This professional approach extends to the environment also. The Sennetts understand that the manure is not a waste product, but actually a valuable, high-quality, low-cost source of organic fertilizer. Not only does it reduce their fertilizer costs on about 350 crop acres, but also eliminates the need for commercial fertilizers, manufactured with fossil fuels, on those acres.

Clark and Lance keep extensive IDEM records on their nutrient handling, including grid soil sampling tests to assure proper agronomic rates. Other environmental practices include no-tilling almost all of their crop land, planting grass waterways and grass filter strips along creeks and ditches, all to reduce soil erosion and nutrient runoff.

Preserving for Future Generations

The Sennetts have some very good reasons for being good stewards of their resources.

"This ground and these cattle are our livelihood and our heritage," says Clark. "We've got to take care of it, so it will be there for future generations. We want to be good neighbors, too—that's just part of it."

He summarizes, "We feel pretty fortunate to have a family farm, and to have been able to raise all of our children on it. We've been able to teach them some good values for life, and we hope that can continue." ■



L-R: Nancy, Clark, Margaret, Lance and two of the four grandchildren

What are animal feeding operations?

You may hear the words CAFO, CFO and AFO used when talking today's livestock operations. These are acronyms for livestock operations that are large enough to be regulated by the U.S. Environmental Protection Agency (EPA) and the Indiana Department of Environmental Management (IDEM).

According to the EPA an IDEM, confined livestock feeding is the raising of animals for food, fur or recreation in lots, pens, ponds, sheds or buildings, where they are confined, fed and maintained for at least 45 days during any year, and where there is no ground cover or vegetation present over at least half of the animals' confinement area. Livestock markets and sale barns are generally excluded.

Confined Feeding Operations (CFOs)

Indiana law defines a confined feeding operation as any animal feeding operation engaged in the confined feeding of at least 300 cattle, or 600 swine or sheep, or 30,000 fowl, such as chickens, turkeys or other poultry. IDEM regulates these confined feeding operations, as well as smaller operations which have violated water pollution rules or laws, under the Confined Feeding Control Law.

IDEM's Office of Land Quality administers the regulatory program which includes permitting, compliance monitoring and enforcement activities.

Concentrated Animal Feeding Operations (CAFOs)

Due to size or historical compliance issues some confined feeding operations are defined as concentrated animal feeding operations (CAFOs). All CAFOs are confined feeding operations. The CAFO regulation however, contains more stringent operational requirements and slightly different application requirements. ■

Difference between a CFO & CAFO		
SPECIE	CFO	CAFO
	(Confined Feeding Operation) as defined by IDEM	(Concentrated Animal Feeding Operation) Requires an NPDES (National Pollutant Discharge Elimination System) permit from EPA <i>The following list depicts the animal species and their threshold numbers for needing an NPDES permit. Farms with fewer animals can be designated a CAFO and required to get a permit if they have, or it is determined they will pose a significant threat to have, a discharge of pollutants from the production areas or waste storage facilities.</i>
Beef Cattle	300+ head	1000+ head
Dairy Cattle	300+	700+ mature cows
Swine	600+	2,500+ – over 55 lbs. 10,000+ – less than 55 lbs.
Fowl	30,000+	55,000+ Turkeys 5,000+ ducks (liquid manure handling system) 30,000+ ducks (solid manure handling system) 82,000+ laying hens (solid manure handling system) 30,000+ chickens (liquid manure handling system) 125,000+ broilers with a solid manure handling system
Sheep	600+	10,000+
Veal	300+	1,000+
Horse	n/a	500+

Air Quality and Odor

Livestock manure is injected into the soil to prevent run-off and maximize nutrient absorption.



Farmers understand that reducing odor from livestock farms is a top priority. Farmers invest millions of dollars in research to learn how to protect our air and reduce odor from livestock farms. From testing various feed rations to collecting manure and turning it into methane gas for fuel, the search for answers is in full throttle.

Ways farmers control odor

The following are just some ways Indiana livestock producers manage odor:

Good housekeeping – Keeping livestock barns clean with regular washing, dust control and proper building ventilation are keys to reducing odor.

The right kind of feed – Farmers formulate the animals' diet to reduce the odor generated from the manure.

Taking the stink out of manure – Farmers are experimenting with specially designed manure storage areas that use new technologies to remove the odor from manure before it's applied to the land.

Checking the weather report – The best time to incorporate manure into farmland is in the morning on a day with no wind or rain.

Injecting the manure – Most farmers inject or incorporate the manure into the soil, which greatly reduces odor and potential runoff.

Landscaping – Planting windbreaks and buffer trees help control odor.

Did you know that...Larger livestock farms do not necessarily produce more odor?

Two independent research projects studied odor and air quality from pork operations.

A study conducted by the Iowa Department of Natural Resources shows that manure management plays a major role in how much odor is produced by livestock operations, but that odor from farms is not a widespread problem. In addition, the DNR study found that the size of an animal feeding operation did not directly relate to the odor produced.

A second study conducted by Iowa State University compared hydrogen sulfide and ammonia levels near hog farms to those measured inside nearby residences. The study found that proximity to hog farms does not affect air quality inside neighboring residences as much as the activities that take place inside the residences.

The researcher concluded that cat litter boxes, smoking, and everyday household cleaning products apparently have a more profound effect on air quality in a home than nearby 1,200- and 4,800-head hog barns. ■

Common Myths

About Farming, Livestock Farms, and the Environment

Today, most Americans don't live on farms or have any connection to the modern farm. Consequently, people don't understand why farming has changed since the days of our grandparents.

MYTH: Corporate farms have taken over the family farm.

FACT: Farms today look different than they used to, but only the structure has changed. Families still remain the core of the new business structure. A corporate farm is not about size. It's about farmers setting up their business for tax and estate planning purposes. Indiana farms that have been operating for generations, regardless of size, can be corporations.

MYTH: Large farms are putting small farms out of business.

FACT: Like any business in the U.S., farms are getting larger because of economies of scale. However, Indiana has a mix of farms from small to large. And that's good for the state's economy. By creating and sustaining a positive environment for farmers at all levels, we can improve the economy for all rural communities.

MYTH: Large farms are bad for the community.

FACT: Agriculture is the economic engine that drives many of Indiana's counties. According to the Indiana State Department of Agriculture, 35-60 percent of tax revenue in our rural communities is generated from corn, soybeans, and the livestock that eats the grain. For many counties, developing their agriculture industry is the best way to increase economic activity and tax revenue.

MYTH: Confined livestock feeding operations are bad for the animals' well-being.

FACT: Livestock producers have always felt a strong moral obligation to provide good care for their animals. If livestock are stressed in their environment, they start to show it with loss of appetite, weight loss, and susceptibility to illness. That's why farmers have invested millions of dollars into research on the best way to raise livestock in a stress-free environment. Animal research shows that sheltered animals live a less stressful, healthier life than livestock that live outside, where they are constantly exposed to weather and predators.

MYTH: Today's farmers don't care about the environment.

FACT: Modern technology used by today's farmers better protects the environment than the methods used by their forefathers. It's important to understand that clean air, land, and water are crucial to the long-term success of the state's livestock industry. Both from a business and an ethical standpoint, livestock producers have every motivation to conserve and protect the natural resources they rely upon.

MYTH: Modern livestock farms produce huge amounts of waste that pollute our water.

FACT: In the old days of farming, with animals grazing out on the land, the manure was much more likely to run off into the state's water system. Today, all manure is required to be contained in approved engineered storage structures on the farm. Farmers are required to inspect the systems so that they don't leak or overflow. In Indiana, livestock farms are held to the highest environmental standards. **Livestock producers are the only ones required to have zero discharge into state waters.**

MYTH: When farmers spread manure on the fields for fertilizer, it goes into our water supply.

FACT: With the use of modern technology, soil science and conservation practices farmers can apply manure to the land as an organic fertilizer, thus the manure nutrients are absorbed by the soil and not the water. In addition, state and federal regulations mandate that livestock producers only apply manure at a rate that can be utilized by the growing crops. Farmers must have approved manure management application plans before applying manure to the soil.

MYTH: Livestock farms are not regulated like factories.

FACT: The livestock industry is highly regulated by the Indiana Department of Environmental Management, the federal Environmental Protection Agency, the Office of the Indiana State Chemist, and the state Board of Animal Health. It's not uncommon for today's livestock farmer to hire staff whose sole job is to make certain the operation stays in compliance with state and federal regulations. ■



Animal Agriculture + Soybean Farmer = Partners in Growth



When you think about Hoosier farming, the first images that come to mind are probably green fields of soybeans and tall rows of corn. But there's more to the picture – the top consumers of those crops are pigs, chickens, and dairy and beef cattle. The success of Indiana's soybean farmers is directly linked to a thriving livestock industry. Without the business generated by animal agriculture, grain farmers would find themselves without a local market, and with lower grain prices.

Animal Agriculture is Important to Indiana

Animal agriculture in Indiana consumes approximately 883,000 tons of soybean meal.

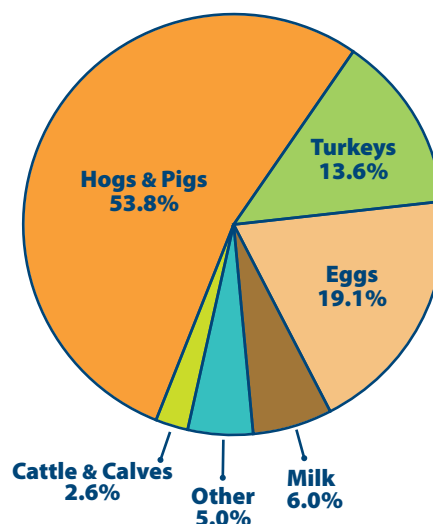
Soybean Meal Use for Feed in 2005

	(short tons)
Beef cattle	23,000
Hogs & pigs	474,000
Broilers	unknown
Turkeys	120,000
Eggs	168,000
Dairy cattle	53,000
Other	44,000
Total	883,000

All 2005 Animal Agriculture in Indiana

Output (\$ mil.)	4,544
Earnings (\$ mil.)	704
Employment (jobs)	42,398
Income taxes (\$ mil.)	156
Property taxes (\$ mil.)	54

Indiana Soybean Meal Use by Species 2004/05



Growing **IN** Agriculture



Growing Indiana Agriculture is an education and awareness program with the goal of increasing soybean meal demand by developing Indiana's livestock industry in a manner that is environmentally safe, socially responsible, and economically viable.

Growing Indiana Agriculture programs are a part of the Indiana Soybean Alliance's strategic plan to grow Indiana's soybean industry and funded by the soybean checkoff.

For more information about Indiana's livestock and soybean industries and the farm families who operate our farms contact:

Growing Indiana Agriculture Program
888-326-4458 • www.growinginagriculture.com • info@growinginagriculture.com

Source: Promar International January, 2007

