

Well, obviously the reason we're here is for research.

About 20 years: has become more sophisticated; more rules.

Governed by department of Animal Resources. Directed by vice-chancellor for research.

Any experiment performed on farm with animals as subjects goes through approval process.

Iocuk board inspects facilities every 6 months.

Clinical vet. serves as person who checks farm every month. Also, technician who serves as person who goes between Iocuk and Animal Sciences.

Animals are cared for in proper manner. Documentation- everything that happens is recorded.

Even animals that aren't on specific research trial are on a general protocol that serves for the whole farm.

So, every animal has a certain protocol.

Biggest change in last 20 years is increase in the amount of documentation. Animals are treated humanely, kept in good conditions; how many sq. feet an animal must have. How clean the facility must be has to meet certain standards.

Governance level has increased.

Mid-70's: feed 'em & weigh 'em experiments. Put different kinds of feed in front of the animal & see which one promoted the most weight gain.

Over 80's: What did the feed do to animal besides make it grow faster? Fatter? Leaner?

90's: Linkage with consumer. Changed diet has impact on the quality of pork produced?

Many now go to carcass quality analysis & from there to tray and taste panels at the meat lab.

Then offered to trained panelist who look at color, quality, taste, flavor etc. to judge the meat.

Nutrition is what has been done most at the University of Illinois. "Nutrition has always been our area of expertise.". Development of using soybeans as a supplement in diets was developed here in the 50's. Amino acid array for pig feed was developed at U of I. Nearly all of great professional nutritionists that have made marks for themselves in the 50s, 60s, 70s most came through U of I.

Need to better understand pig's behavior & how behavioral keys affect his body immunologically.

Good health comes from being comfortable & being in a good environment. Is he stressed? Is there something that is preventing him from performing at his full ability? Behavioral physiology developed at U of I before many other places.

Basic sciences of reproductive physiology is still big issue. Being able to get animals to conceed & be fertile & raise litters that grow fast.

Interface growing consolidated industry with urban environment.

Mormon farm

Feed additives; drugs, growth-promotants. The growth-promotants can produce leaner pigs.

Other fields: behavioral, physiology.

National controversy?: House sows in gestation crates; stalls of piglets (2 ft wide, 14 sq. feet). Some argue that they need to turn the animals loose. Make the pigs

1. Productive
2. Healthy

Fareway crates: State of Florida has outlawed use of gestation crates and fareway crates. EU has been moving away from these crates for years. Arizona is trying to get these crates banned. The way to maintain the animals' health is to treat them as individuals.

Sow in big, open pen vs. sow in open stall; stall is no worse, no better. In many cases, it controls the feed intake. To address scientifically the emotional things. He believes it is his duty to make the animals comfortable.

Biosecurity: "big part of the standard operating procedure." Access to the farm is limited b/c of the biosecurity issue. They are trying to protect the animals. In a commercial environment they require the classes to have clean coveralls & clean boots. Log book- who comes in & out of farm. You might also carry something back from the farm to your home.

Ethics: "People make mistakes, mistakes will happen - but if you try to hide it, it's a bigger sin than the original mistake. We must be ethical or we have nothing else to stand for. The workers need to be of the highest integrity. The government scrutinizes everything. Unnecessary use of animals: "About 2% of population think animals should not be kept in confinement nor should they be housed to feed people. We should turn them loose. They are entitled to their opinion." "A vast grey area exists. Philosophical difference is determining what's necessary and what isn't necessary. From the ethical standpoint, being governed by the iocuk, is established under the USDA."

In the past, they may have been guilty of doing research simply because they could. Today, it gets scrutinized, so if it creates 1. Pain for the animal 2. Put the animal in jeopardy, then they won't do it. Checks & balances of ethics come into play here. Everybody has their own opinion, but they are in the business of research.

Some research is proprietary.

Fiber digestion of cereal grains. This may be a precursor to the next step of looking at additives to the feed which break down fiber. Make more use of fiber - fiber is not readily digestible. So looking at barley, oats, rice and how they break down differently than corn & soybeans.

"A new ethanol plant is being built every night at least in the state of Illinois. The by-product of ethanol is distiller-dried grains. And we're going to have a lot of that to feed. Traditionally, it's not used in pig diets. Developing a better understanding of how fiber is metabolized.

"We're doing some work that helps us to synchronize estrus of the female before breeding." Higher ovulation rates are trying to be achieved in females.

Farm has about 200+ sows.

Market about 4300 pigs a year. Go to market at about 270 pounds. Piglets weigh about 3 pounds.
Go to market at 260-270 in about 5.5 months. They're fast-growing.

Obstacles: protocol, lack of funding.