

Private and Public Funding: Creating a clearinghouse for information

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Outline

- Funding sources and examples
 - **Federal funds**
 - State funds
 - Commodity organizations
 - Private Companies
 - Private organizations
- Funding concerns
- Funding/Research needs and opportunities

National Institute of Food and Agriculture (NIFA)

(Formerly USDA-ARS-CSREES)

KA 315: Animal Welfare, Well Being NIFA Dollars

Combined Research and Extension Dollars

Formula -Expenditures/Grant-Obligations in Thousands

Funding Source	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	Total
Hatch	633	722	736	831	1,462	4,384
McIntire-Stennis	24	32	33	48	26	163
Evans Allen	0	0	0	0	20	20
Animal Health	190	147	124	190	181	832
Special Grants	317	258	79	0	207	861
NRI Grants	830	1,867	1,528	1,442	3,353	9,020
SBIR Grants	160	744	296	80	0	1,280
Other NIFA	419	2	53	131	366	971
Smith-Lever 3(d)	n/a	n/a	n/a	8	6	15
<i>Total Reported in CRIS</i>	2,573	3,772	2,849	2,729	5,621	17,544
Smith-Lever 3(b) and (c)	n/a	n/a	n/a	1,504	2,206	3,710
1890 Extension	n/a	n/a	n/a	100	126	226
<i>Total Extension Reported in POW</i>	n/a	n/a	n/a	1,603	2,332	3,935
Total (NIFA Admin)	2,573	3,772	2,849	4,332	7,953	21,480

KA 306: Environmental Stress in Animals NIFA Dollars

Combined Research and Extension Dollars

Formula -Expenditures/Grant-Obligations in Thousands

Funding Source	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	Total
Hatch	1,086	1,351	968	1,053	1,009	5,467
McIntire-Stennis	0	0	26	42	53	121
Evans Allen	0	0	27	62	58	147
Animal Health	24	13	39	19	42	137
Special Grants	1,030	315	210	0	275	1,830
NRI Grants	0	341	183	1,453	329	2,306
SBIR Grants	24	187	0	24	0	235
Other NIFA	0	41	483	0	90	614
Smith-Lever 3(d)	n/a	n/a	n/a	0	0	0
<i>Total Reported in CRIS</i>	2,164	2,248	1,936	2,653	1,856	10,857
Smith-Lever 3(b) and (c)	n/a	n/a	n/a	594	705	1,298
1890 Extension	n/a	n/a	n/a	39	41	80
<i>Total Extension Reported in POW</i>	n/a	n/a	n/a	633	745	1,378

Livestock Behavior Research Unit NIFA-ARS

- Located in West Lafayette, IN
- 5 research scientists (post-docs, graduate students) working in animal well-being and food safety
- Poultry, swine and dairy





- Develop scientific measures of animal well-being, through the study of animal behavior, stress physiology, immunology, and neurophysiology, that will allow an objective evaluation of animal agricultural practices for swine, poultry and dairy cattle.
- Goal is to improve existing practices and develop new practices that can enhance animal well-being and increase animal productivity.

In addition, this unit uses and develops its knowledge of stress physiology and animal behavior to address concerns of pathogen contamination of swine and dairy

Agriculture and Food Research Initiative (AFRI)

- Animal well-being
- Total funding 2008
 - \$1,500,000
 - Range 0-375,000
 - 2-3 years
- 3-4 grants per year for all species
- Longer term, higher risk than industry grants

Agriculture and Food Research Initiative (AFRI)

- Animal health
- Total funding 2008
 - \$9,000,000
 - Range 0-375,000
 - 2-3 years

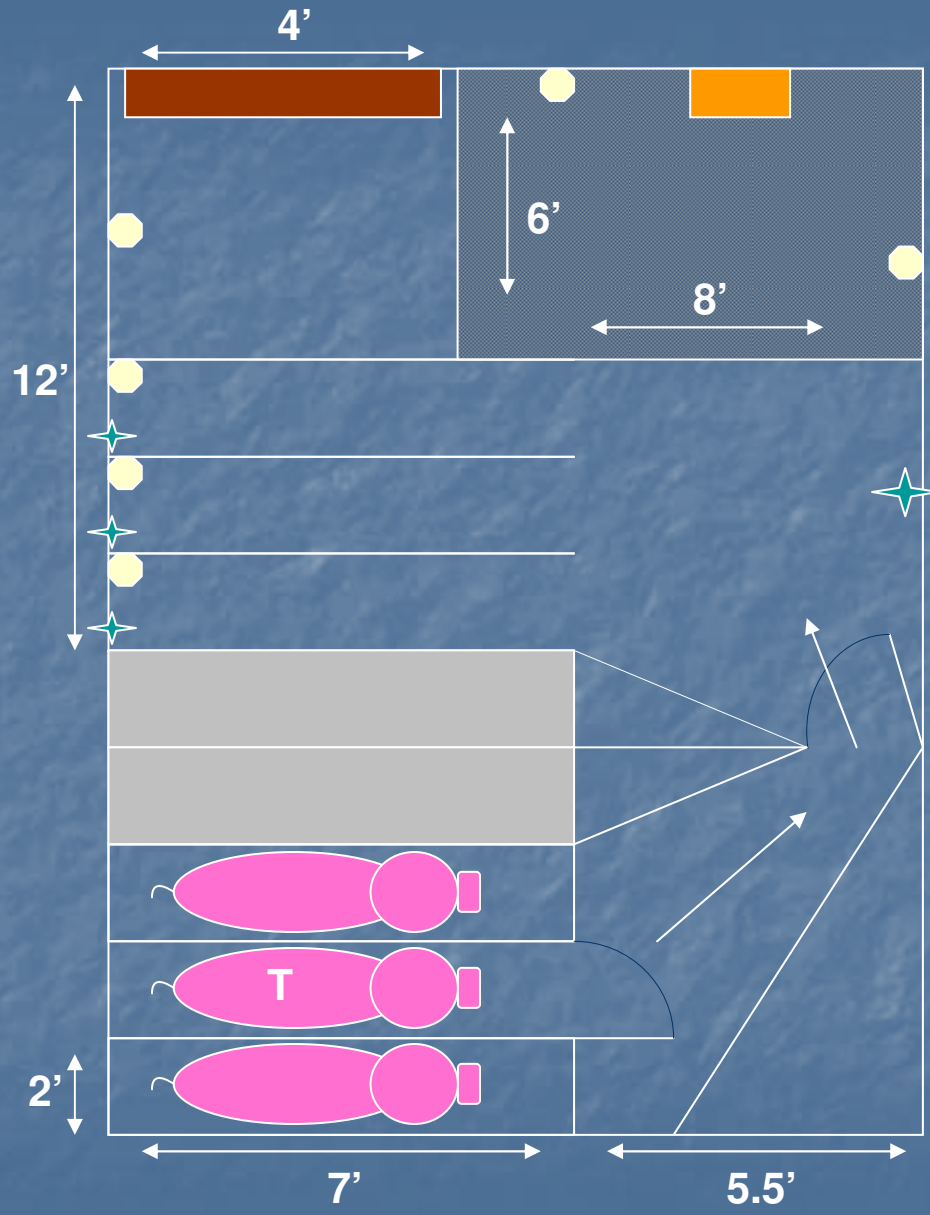
Agriculture and Food Research Initiative (AFRI)






- Animal well-being
 - Enhance animal well-being
 - Interactions with environment
 - Respond to and develop management practices
 - Global competitiveness
 - Maintain consumer trust
 - Decrease animal production and health costs

Motivation for Enriched Space

- Motivation can be assessed through operant tests
- Sows were trained to press an operant panel to gain access to the enriched group pen





Key	
	Sow
	Rubber Mat
	Straw Hopper
	Compost Trough
	Cotton Cord
	Nipple Drinker



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- Started in 2001 to address research needs of poultry industry
- Increase efficiency, sustainability
- Multi-discipline research projects
- Industry: Federal matching program



- 40% Critical needs
- 20% Broiler
- 20 % Turkey
- 20% layer



- 4 Million dollars since 2002
- Includes 40% funds from industry
- 124 research projects
- 10 animal welfare projects
 - Bill and beak trimming
 - Feeding space

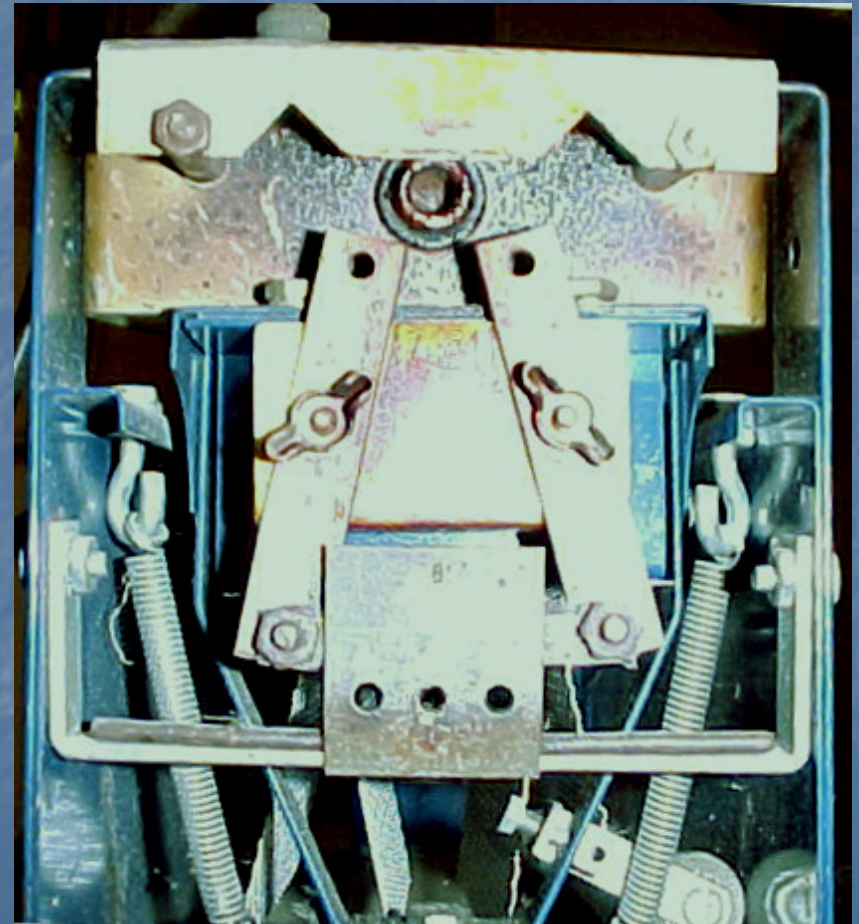
Infrared beak trimmer

**NOVA-Tech Engineering Inc.
MN**



Heated blade trimmer

**Lyon Electric Company, Inc.
CA**





American Egg Board

- Social sustainability of Egg Production (Dr. Janice Swanson)
- Unique systems approach to study entire industry
- Economics, Environment, Human Health, Animal Health, Welfare, Consumer/Public Views



National Pork Board Animal Welfare Research



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This message funded by America's Pork Checkoff program.

Research Priorities

- On-farm Euthanasia
 - Develop and evaluate new methods
 - Evaluate and Refine existing methods
- Gestation Sow Housing
 - Develop and evaluate new systems
 - Optimize existing systems



Research Priorities - Continued

- Handling and Transportation
 - Handling tools and techniques to reduce stress
 - Trailer design and on-board conditions for all ages of swine
- Production Practices
 - Castration
 - Tail docking
 - Weaning age
 - Etc....



Research Budgets

- 2007 – \$433,870 spent
- 2008 - \$453,740 spent
- 2009 - \$502,004 spent
- 2010 - \$ 235,000 available



'07-'09 Funded Research

- Sow Housing: 9 studies
- Transportation - 1 study
- Euthanasia – 6 studies
- Production practices – 4 studies

- Projects tend not to be multi-year
- Slight incompatibility with graduate school timelines



Animal-Controlled Stall Project

- 3 different alley widths
 - 3,7,10 feet
 - Behavior
 - Physiology
 - Immunology
 - Production
-
- Impact of gestating space on piglet development



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McDonald's

- May 2009, McDonald's (U.S.) announced its participation with leading animal welfare scientists, academics, Non-Government Organizations (NGOs) and egg suppliers in a commercial-scale study of housing alternatives for egg-laying hens
- Supported some gestation sow housing work in the past

Private companies

- New Methodology
 - BAS:USDA Pig-turn
- Feed Additives
 - Ractopamine, Beta-Glucan, Vitamin C
- Drug companies
 - NSAID, analgesics
- Housing
 - Chore-Time
- Companies provide few funds but are more likely to supply equipment, additives, drugs
- Support collaborative efforts, Maple Leaf Ducks and MPRP

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Funding/Research Concerns

- Objectivity of Research, of Funding Institutions and of Universities themselves
- Aging infrastructure on land grant universities
 - Do facilities exist that are externally valid
- Duplication or EU research?
 - Basic Principles (maybe)
 - Management systems differ a great deal in certain circumstances
 - Bee aware of what's been done elsewhere as animal welfare is an small but international area

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- **Funding/Research Needs**

Role for AVMA

- Funding for research or curriculum development?
- Lobbying for additional funds to support animal welfare research (multi-disciplinary, focused on collaboration between veterinarians, animal welfare scientists, animal scientist and producer groups).

Bigger Picture

- Request for science based guidelines
- Remember that science can be narrow or broad in its applications.
- Broad multidisciplinary, integrated projects are necessary.
- Sustainability project
- EU welfare quality project

Welfare Quality Project

- Largest piece of integrated research work carried out in Animal Welfare in Europe
- Expanded to include 5 Latin American Countries
- 44 institutes and universities
- 17 countries
- 17 million Euros



National strategy

- “The time has come for a national dialogue about what to do about farm animal welfare. This dialogue needs to result in a consultative process that ensures transparency, accountability, and economic security for producers and consumers of animal products...Without such a process, we risk making changes that absolve the conscience of consumers, but at the expense of the animals themselves”

Mench, James, Pajor, and Thompson, 2008

“Knowledge is the Answer”

- Research and Education
- Shortage of scientist and educators trained in animal welfare
- Faculty positions in animal welfare at veterinary schools

Knowledge is the Answer

- Positions at UPEI, Guelph, Saskatoon, Calgary
- Ohio State, Iowa State, Washington State, Michigan State
- In order for new faculty and programs to be successful, funding is necessary

Opportunities for Collaboration

- Pain
- Illness
- Positive emotional states
- SOP's and management
- Regulation and public policy

- Research funding is the key to
 - Training more scientists
 - Training more teachers
 - Educating students that will be producers, animal scientists veterinarians in policy, academia or clinicians

University of Calgary

- New Veterinary School
- 2nd year of students, 30 students per year
- Required 33 h of animal behavior and welfare in 1st year
- 1-2 week rotation in animal welfare being considered for 3rd year
- Integration of welfare across the curriculum, clinical skills, etc.
- Animal Welfare and Pain, one of 4 strategic areas for research

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