

Sow Lifetime Productivity



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National Pork Board



AMERICA'S PORK PRODUCERS
DOING WHAT'S RIGHT.

Pork Checkoff & The National Pork Board

Funding .40/\$100

- Secure and guide industry research funding
- Enhance domestic and global demand
- Provide producer information and education
- Deliver proactive issues management

Voluntary Investment .10/\$100

- Develop and defend export markets
- Fight for reasonable legislation/regulation
- Inform and educate legislators
- Amplify the producer voice with lawmakers
- Counter misinformation and activists



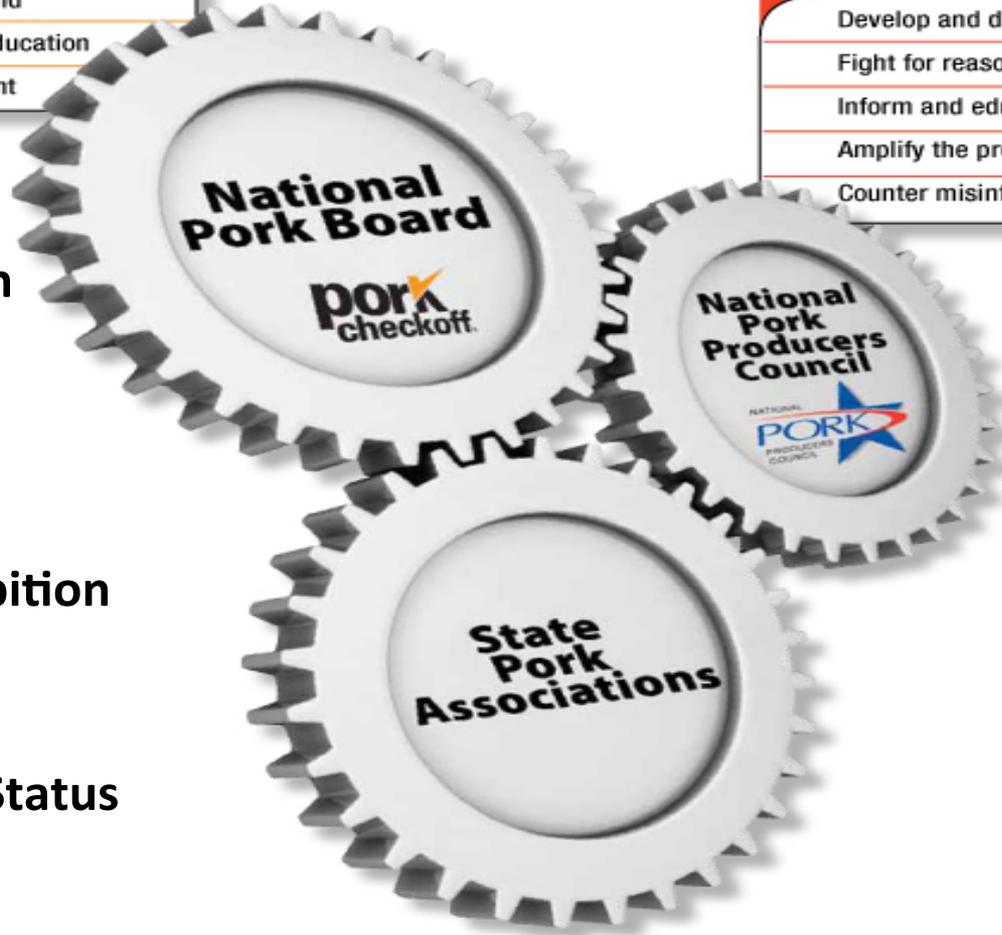
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- Producer-Driven
- Mandatory v. Voluntary
- Lobbying Prohibition
- NPB's Quasi-Governmental Status

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- 15 Producers
- 12-state Minimum
- Elected by Delegates;
Appointed by U.S.
Secretary of
Agriculture
- 3-year Board Terms

Program Committees

- 9 Committees
- Involves 250 + producers/advisors
- Organized around key issue areas
- Utilize producers and others of program expertise (vets, packers, retailers, etc.)
- Planning Responsibilities
 - Establish priorities, set goals, track progress, report results



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Science and Technology Committees

- Swine Health
- Animal Science
- Animal Welfare
- Environmental
- Producer/Public Health & Worker Safety
 - w/ Producer Relations
- Pork Safety Quality and Human Nutrition
 - w/ Domestic Marketing
- Trade Committee



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Science and Technology Staff

- Dr. Paul Sundberg, V P, Science and Technology
- Dr. Jennifer Koeman, Director, Producer and Public Health
- Dr. Chris Hostetler, Director, Animal Science
- Allan Stokes, Director, Environmental Programs
- Sherrie Niekamp, Director, Animal Welfare
- Dr. Patrick Webb, Director, Swine Health Programs
- Dr. Steve Larsen, Director, Pork Safety
- Dr. Lisa Becton, Director, Swine Health Info and Research



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Historical Results

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Revenue	\$49.0	\$61.2	\$63.2	\$60.7	\$63.1	\$67.4	\$57.9	\$71.5	\$80.1	\$76.5
State Share	(9.7)	(11.9)	(11.9)	(11.4)	(11.5)	(12.4)	(11.2)	(13.2)	(15.8)	(15.2)
National Spending	(37.8)	(41.5)	(50.2)	(55.7)	(50.1)	(50.3)	(54.6)	(43.4)	(69.6)	(69.3)
Surplus/Deficit	1.5	7.8	1.1	(6.4)	1.5	4.7	(7.9)	14.9	(5.3)	(8.0)
Undesignated Cash Reserve	\$16.4	\$23.2	\$24.3	\$13.3	\$13.8	\$17.0	8.4	\$23.3	\$18.0	\$10.0



Leading a world-class food industry

Responsible. Sustainable. Professional. Profitable.

SETTING A NEW DIRECTION FOR THE U.S. PORK INDUSTRY

A Five-Year Strategic Plan



Critical Issues

#1: Operating Freedom: NPB will protect the rights and ability of U.S. farmers to produce hogs in a socially responsible and cost-competitive manner.

#2: NPB will refresh and reposition the image of U.S. pork to increase **domestic and international consumer demand.**

#3 NPB will pursue strategies to enable U.S. pork farmers to remain **highly competitive long term on a global basis.**



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pork
checkoff®

Project focus a direct result of Strategic Plan

- Competitive Global Advantage
 - Identifying Critical Issues that Impact Profitability and Establishing Multi-Year Research Priorities
 - » Research Task Force
 - » The Task Force recommends
 - creating a Science and Technology Research Steering Committee
 - » assure research is focused on high priority issues
 - » the relevant subject matter committees coordinate research activities on these issues
 - » funding is aligned with the critical issues and desired outcomes.



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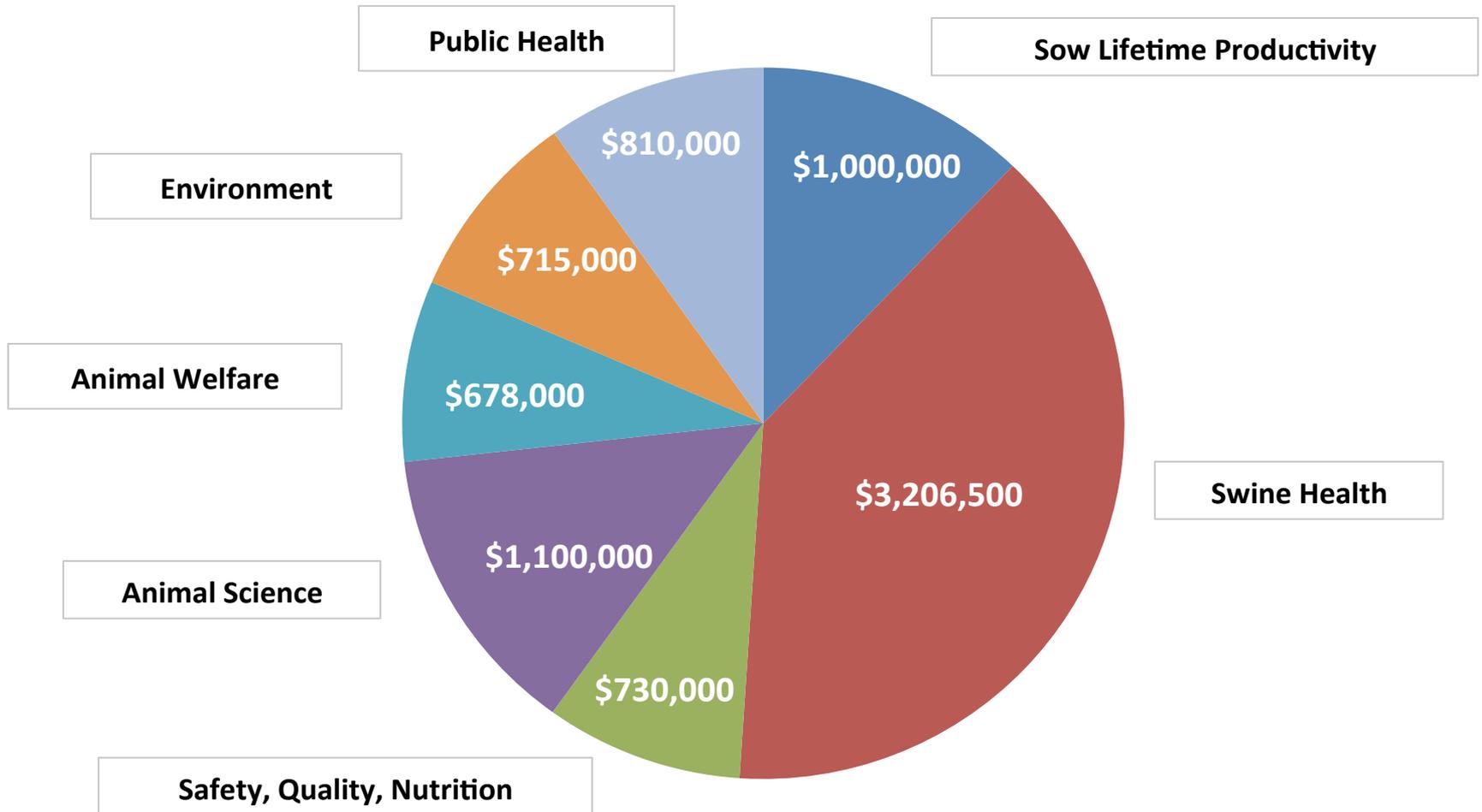
- High Impact
 - increasing the average number of litters by one litter per sow in her lifetime would produce a minimum net value of \$250M for the pork industry
- No Overlap
 - Multidisciplinary
 - Applies across genetic lines
- Industry wide benefit
 - Applies to all sow herds regardless of housing types
- Future and Challenges
 - Model for other efforts?
 - Multiple year funding – addresses U.S. competitiveness
 - Producer / industry consortium – integrating producers and allied industry in the strategic plan



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2012 National Pork Board Sci-Tech Budget \$8,239,500



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Sow Lifetime Productivity

- SLP Task Force – Dec '11
 - Producers and academic experts in breeding herd
 - Definitions and road map to reach the objectives
- SLP Working Group – Feb '12
 - Sci Tech program areas representatives
 - Allied industry / producer experts in breeding herd
- SLP Scientific Working Group – April '12
 - Define the experimental model
 - Discuss how the SLP will be structured
 - Discuss where the research will be conducted and develop an implementation plan



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Sow Lifetime Productivity

- Defined as the total number of quality pigs a female weans during her productive lifetime from the time she becomes breeding eligible until she leaves the herd
 - Driven by the length of time a female remains in the herd and the number and size of the pigs she produces
 - Gilt selection, development and retention
- Goal of conducting research which will lead to an increase in lifetime productivity by 30% in the next 7 years
 - Currently sows in the US herd produce approximately 35 pigs during their productive lifetime
 - Raising the average parity from 3.4 to 4.3
 - Increasing total pigs weaned in sow lifetime by 10 – 15



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Major Research Areas

- Gilt development and retention
 - Optimizing gilt growth and social interactions
 - Gilt competency
 - Selection criteria, immune status/markers
 - Sow retention
 - Strategies to minimize depletion body reserves



Major Research Areas

- Increased number of pigs weaned and piglet weaning weight
 - Sow lactation and gestation feed efficiency
 - Milk quality and quantity
 - Increased farrowing rate
 - Strategies to minimize pregnancy loss
 - Mitigation of the impact of seasonal infertility

Major Research Areas

- Bioinformatic mechanisms for measuring and monitoring *industry-wide* sow lifetime productivity
 - Consensus for the data needed
 - Equation for calculating SLP

Sow Lifetime Productivity

- Trial 1: Critical Optimal dietary energy and protein for the development of gilts Production System
 - Summer 2013
- Main trial: Sow Lifetime Productivity – Gilt development and retention
 - Early 2014
- Piglet trials
 - Development in 2013
- Bioinformatics
 - Development in 2013



Critical Production System Collaboration

- Sufficiently large to provide enough statistical power to answer the questions being asked
- Have a record of commitment to research and development
- Have the ability to capture the required data
- Allow access to the facilities by the research team conducting the trial

