

**USDA Agricultural Research Service**  
**National Program 101**  
**FOOD ANIMAL PRODUCTION**  
**External Panel Retrospective Review: 2015-2020**

**Prepared by:**

Dr. Dave Pyburn, Chair

Dr. Christopher Ashwell

Dr. Chris Hostetler

Dr. Steve Moeller

Dr. Gary Newton

Dr. Troy Ott

Dr. Penny Riggs

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## **Executive Summary**

The NP 101 Retrospective Review Panel consisting of the panelists listed above was convened on Thursday, December 3, 2020. National Program Leader, Dr. Jeff Vallet, provided detailed information about the program, the three components of the program, the problem statements under each component, and highlights of the outputs as evidence of overall program productivity.

The National Program for Food Animal Production continues to play an important role in supporting research directly applicable to food animal species, and ARS scientists contribute to advances in related initiatives within the national and international research communities. The mission of NP 101 is to “improve food animal production efficiency, industry sustainability, animal welfare, product quality, and nutritional value while safeguarding animal genetic resources.”. The retrospective report that was prepared and reviewed by this panel provides substantial support for accomplishments in each of the stated Component areas.

The NP 101 program groups their research work into 3 general component areas. As noted by the NPL, the bulk of the accomplishments during this review period occurred in Components 1 and 2.

1. Component 1: Increasing Production and Production Efficiencies while Enhancing Animal Well Being across Diverse Food Animal Production Systems
2. Component 2: Understanding, Improving, and Effectively Using Animal Genetic and Genomic Resources
3. Component 3: Measuring and Enhancing Product Quality and Enhancing the Healthfulness of Meat Animal Products

The scientists working in NP 101 have added depth and breadth to the body of scientific knowledge represented by these three components. This information underpins the fundamental understanding of biological processes in livestock and poultry and forms the foundation for the application of this knowledge at the farm level. Applied research is targeted to problems, derived from stakeholder inputs, that are both industry- and region-specific. Basic research has much broader applications and impact. The report provides ample evidence of high quantity and quality in scholarship as evidenced by the publication of their research in the highest impact, most relevant peer-reviewed journals in the animal and poultry sciences

The review panel has highlighted the most impactful of these accomplishments in the following report. Likewise, the panel has identified areas where additional work may be fruitful. This includes collaborative work on the healthfulness of meat that could and should have a future impact on the USDA dietary guidelines. Also, data on the healthfulness of meat from genetically modified animals should be utilized to determine FDA/USDA guidance on the marketability and labeling of such products.