

NRSP-9: The National Animal Nutritional Program (NANP)

NANP Website: <https://nanp-nrsp-9.org/>

Global Animal Nutrition Expert Network: <https://gann-nanp.org/>

Background: The National Animal Nutrition Program (NANP) serves as a resource for the agriculture animal research community through the sharing, collecting, assembling, synthesizing, and disseminating of science-based information, educational tools, and enabling technologies related to nutrition. Resources include feed composition and animal performance databases, as well as tools for finding relevant publications and expertise related to animal nutrition. NRSP-9 is in its second 5-year project period and is undergoing mid-term review.

The NRSP-9 project has been a key enabling partner for the National Academies of Science, Engineering and Medicine's (NASEM) efforts to update animal nutrient requirement reports (beef update released in 2016; dairy and poultry in progress). The NANP resources add value to these reports by allowing for continual updating of datasets and access to expanded modeling resources for animal nutrient utilization between report revisions. The project serves as a clearinghouse for feed composition data, much of which is contributed by industry partners.

Updates for 2017 through spring 2018:

- Conversion of the NANP website to a new platform and design was completed. Under the new website platform, feed ingredient data for all species will be housed in a single database which will improve the end user interface. The new structure also facilitates updates to the database by the research community.
- Completed the dairy cattle feed composition database and auxiliary tables for the upcoming National Academies of Science, Engineering and Medicine (NASEM) Nutrient Requirements of Dairy Cattle report.
- Made progress toward a legal agreement with the NASEM that would allow users to access the source code for species utilization models. This is a critical step toward developing a multispecies interface accessible through NANP that could be used for diet optimization by extension and as an instructional tool in the classroom.
- An all-day modeling workshop was held during the 2017 American Dairy Science Association Meeting in Pittsburg, PA. The workshop provided hands-on experience with several modeling approaches. The workshop's maximum capacity of 100 attendees was met with a waiting list of more than 10. Participant surveys indicated a high level of relevance and usefulness to the audience. Additional workshops are being planned for 2018.
- An external evaluator has begun a study to assess the impacts of the NANP to date. A survey is being conducted to assess the value, use and impact of NANP outputs and activities to website users, NASEM study committees, feed associations and other key stakeholders. This will be followed by additional mixed-method evaluation using document analysis, interviews and focus groups, surveys and web statistics to continue monitoring the impact through the remainder of the project period.

- The group is exploring how to best leverage data contributed by commercial labs into additional revenue for the project.
- Two papers that evolved from discussions during the 2015 Summit on Animal Nutritional Research Priorities were published in 2017 and contributed to the national conversation related to animal agriculture and its societal impacts:
 - White R and Hall M. 2017. Nutritional and greenhouse gas impacts if removing animals from agriculture. *Proceedings of the National Academy of Sciences* 114 (48) E10301-E10308; DOI: [10.1073/pnas.1707322114](https://doi.org/10.1073/pnas.1707322114)
 - Odle J, Jacobi SK, Boyd RD, Bauman DE, Anthony RV, Bazer FW, Lock AL, Serazin AC. 2017. The Potential Impact of Animal Science Research on Global Maternal and Child Nutrition and Health: A Landscape Review. *Advances in Nutrition (Bethesda, Md.)*. 8: 362-381. PMID [28298279](https://pubmed.ncbi.nlm.nih.gov/28298279/) DOI: [10.3945/an.116.013896](https://doi.org/10.3945/an.116.013896).

Planning has begun for another national summit, which will focus on a specific area of public policy or societal impact related to animal agriculture and animal nutrition (e.g., sustainability, international trade, fats and cardiovascular health, etc.).