**APPENDIX D**

**SAES-422**

**Format for Multistate Research Activity**

**Accomplishments Report**

**Project/Activity Number: NRSP8**

**Project/Activity Title: Building Applied Genomic Capacity for Animal Industries**

**Period Covered: 10/2023-9/2024 (“Year 1”)**

**Date of This Report: 9/25/2024**

**Annual Meeting Date(s): 1/14/2024**

**Participants:** The annual meeting in January 2024 marked a significant transition from the “old” NRSP8 to the “new” NRSP8. Despite the retention of the number designator, there are significant differences in aims and organization between the multistate programs. The NRSP8 leadership team met as a group to discuss the transition plan from the organization by species groups to organization by aims (see below for details). The leadership meting was attended by 19 individuals (below).

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Later that afternoon, the general business meeting was held, and was attended by approximately 80 individuals representing many academic institutions, industry, and the USDA.

**Brief summary of minutes of annual meeting:** The meeting opened with a legacy perspective on the “old” NRSP8 provided by Noelle Cockett, including the accomplishments of the community over the past two decades. Plans for future funding to continue the scientific efforts of the community, including a pending application for a RCN project, were discussed along with some challenges to be faced in the transition. Comments were given by Steve Lommel on behalf of the NRSP review committee emphasizing the need to push forward to deliverables rather than technology. Brief final reports were provided by the species coordinators from the “old” NRSP8. Angelica Van Goor provided a USDA update including upcoming calls for funding and opportunities for conference grants. The new Aim Coordinators were introduced to the group and provided their visions for activities for the coming year. The group moved, seconded, and unanimously approved a return to PAG in January 2025 for the next annual meeting. The meeting was then adjourned.

**Accomplishments:** With the sunsetting of the “old” NRSP8, the National Animal Genome Research Program, in 2023, the agricultural genetics community recognized the need to maintain an umbrella multistate program that would support our collective efforts at developing shared resources and educational tools. A writing committee, spearheaded by Fiona McCarthy (University of Arizona) and Stephanie McKay (University of Missouri) crafted a new proposal focused on capacity development that was widely supported by the genomics community and industry stakeholders. This proposal was approved in late 2023 and the designation NRSP8 was kept in an effort to reflect the continuity of community efforts and engagement. The “new” NRSP8, Building Applied Genomic Capacity for Animal Industries. has three aims:

AIM 1: Extending genomics capacity to a broader range of Animal Science stakeholders.

AIM 2: Supporting capacity to integrate genomic and biological data.

AIM 3: Education, training, and outreach to develop a data-savvy workforce.

**Milestones and Activities:** The focus of the first few months of the new NRSP8 has been organization under the new framework and setting the community up for successful achievement of proposed milestones. These include:

*1. Creation of an External Advisory Board.* A key component of NRSP8’s proposed activities is the engagement of stakeholders representing diverse facets of animal agriculture. Stakeholders will be engaged in multiple aspects of this project, including key decision-making processes. An External Advisory Board (EAB) of industry stakeholders will help ensure that project activities are focused on industry needs. The EAB will meet with NRSP8 leadership at least annually. Nine individuals representing extension, commodity industry groups, and the technology sector have been recruited to the EAB. A virtual meeting in planned for Fall 2024 with an in-person meeting in January 2025 at the annual meeting.

*2. Development of stakeholder surveys.* There are many potential stakeholders that have an interest in the activities of the NRSP8 community. Two stakeholder surveys are currently in development, one focused on educators and one focused on extension specialists. The results of these surveys will be presented at the next annual meeting.

*3. Support for students and early career investigators to engage with genomics research.* Travel support to meetings is a key component for engaging students and early career investigators. A call has been made for applications for travel awards to the 2025 annual meeting. Ten awards will be given.

*4. Development of workshops and other training opportunities.* Initial outreach activities have been undertaken by the NRSP8 leadership team with presentations and booths at various conferences not typically focused on genetics (e.g., ASAS). In addition to this, and to species-focused activities that will occur at PAG in 2025 in parallel to the NRSP8 annual meeting, a workshop is planned for Summer 2025. The target audience is scientists, educators, and extension agents who are interested in harnessing genetics/genomics tools to further their research, teaching, and extension goals. Specific topics will be guided by the results of the stakeholder surveys. Online instructional materials will also be constructed.

**Outputs:** A key deliverable for NRSP8 is accessibility of the tools and resources developed by the community. The animalgenome.org website and AnGenMap listserv have been important tools historically leveraged by the NRSP8 community. The website is in the initial stages of a major overhaul to make it an attractive and user-friendly portal for both geneticists and the general public. The AnGenMap listserv is still being used to aid in communication of initiatives, and a NRSP8 bulletin board has been established to provide a central location for both academic and industry members to post workshop announcements, training opportunities, internships, etc.

**Impacts:** Currently, a major focus is retention of previous members and recruitment of new members to the multistate group, with particular interest in involving extension officers and industry stakeholders. The stakeholder surveys will be used to guide future actions by the NRSP8 community to maximize impacts on the broader agricultural industry.

**Indicators:** The “new” NRSP8 application was accompanied by letters of support from more than 20 industry stakeholder groups, indicating broad buy-in for the efforts of the community to extend genomics capacity to a broader range of Animal Science stakeholders. Industry leaders approached about EAB membership were also enthusiastic about participation. Continued indicators of success will include membership in NRSP8, completion of stakeholder surveys, and attendance at NRSP8-sponsored meetings and workshops.

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