

MEETING AGENDA

Annual Meeting of the Multistate Project S-1076: Arthropod Management in Animal Agriculture Systems and Impacts on Animal Health and Food Security

January 13-15, 2025

Zoom link Thursday: TBD

Zoom Link Friday: TBD

NOTE: The agenda is in Central Standard Time

Best Western Plus
Cimarron Hotel & Suites
315 N Husband Street
Stillwater, Oklahoma 74075

Monday Session (arrival)

1600: Optional Group Dinner (meet in hotel lobby)

Tuesday Session (0830-1700)

0830: Welcome (Smythe)

0845: Update from Cliff Lamb (S-1076 Administrative Advisor) (Virtual)

0900: Local Arrangements (Talley)

0915: S1076 Officer Reports, Job announcements, Job celebrations

0930: Update from Michelle Colby (USDA) (virtual)

1000: Objective Activities:

**1. Investigate the distribution, ecology and biology of arthropods of veterinary concern
(Olds, Shults)**

- a. Determine life history and ecology patterns of arthropod pests
- b. -Omics of arthropod pests
- c. Investigate arthropod-microbe interactions and their impact on food security
- d. Quantify arthropod physiological and behavioral responses to a changing environment

**2. Develop and implement Pest Management Systems to Protect Animal Health,
Welfare, and Productivity (Brewer, Boxler)**

- a. Developing new IPM tactics and tools such as competitive exclusion to reduce pest population development in larval habitats, selection for virulence in entomopathogens, improving fly trap efficacy, and integration into IPM systems.

- b. Provide IPM solutions for production systems, commodities, and species management, including invasive species.
- c. Determine baseline efficacy for novel pesticides and monitor pesticide resistance levels for key pests and currently used pesticides.

1200: Break for lunch

1300: Objective Activities:

3. Develop and strengthen insecticide resistance surveillance of arthropod pests of veterinary concern and associated arthropod-transmitted pathogens (Burgess, Estep)

- a. Insecticide resistance detection and management
- b. Xenosurveillance
- c. Ecological epidemiology

4. Develop precision innovations for economically beneficial management of arthropods of veterinary concern (Trout Fryxell, Olafson)

- a. New/developing approaches to managing pests
- b. Vaccination technologies including anti-tick vaccines
- c. Automation and precision in monitoring (Technology, automation, and remote sensing of arthropods)
- d. Improved economic modeling (Identify successful models of producer behavior change and technology adoption emphasizing the critical decision drivers and thresholds)
- e. E.T.s / EILs
- f. Animal Response to pest pressure
- g. Production expenditures and losses/costs
- h. Modeling economic impacts of arthropod pests.

5. Develop and deliver science-based educational materials focused on the management of arthropods of veterinary concern (Gerry, Loftin, Machtinger)

- a. Professional development for multi-state members and stakeholders.
- b. Website workshop
- c. Assessment Coordinator
- d. Impact speakers
- e. Connecting with veterinarian groups
- f. Education of Stakeholders, Sells/Co-op, Extension, next generation of livestock entomologists

Wednesday Morning Session (0800-1300)

0830: Welcome and plan for the day (Smythe)

0845: Local Arrangements (Talley)

0900: Business Meeting:

1. Selection of 2026 meeting location
2. Old Business
3. New Business

1100: Closing: Talley (Local Arrangements Chair) Smythe (Chair)

1300: Optional Tour of OSU Tick Rearing Facility