

UI Extension in Fort Hall develops Mormon cricket program through partnerships

AT A GLANCE

The Shoshone-Bannock Tribes have experienced devastating Mormon cricket infestations on tribal rangeland since 2023. UI Extension in Fort Hall and the tribes took action to manage the problem.

The Situation

The Fort Hall Reservation is home to the Shoshone-Bannock Tribes, whose ancestral ties to the land continue to shape economic, cultural, environmental and agricultural priorities. Livestock production and healthy rangelands remain central to the Tribes' livelihood and identity. Fort Hall's University of Idaho Extension educator collaborates with tribal land managers, departments, livestock producers and partner agencies to support sustainable livestock and rangeland management through culturally respectful, science-based outreach and education.

In 2023-24, Fort Hall experienced severe Mormon cricket infestations, with even larger infestations confirmed in the spring of 2025. Fueled in part by climatic conditions, outbreaks cover thousands of tribal rangeland acres, consuming native vegetation and placing stress on vital ecosystems. These insects pose a major threat to range and cropland health, forage availability, livestock and wildlife because of their foraging habits. The resulting damage can lead to serious economic consequences.

Adult Mormon crickets are 1 to 2 inches long, with antennae as long as their bodies. Mormon crickets have heavy bodies that may be green, tan or black with a



Mormon cricket infestation visible on a rangeland road.

smooth, shiny outer covering and varied color patterns. They have a characteristic shield-like structure behind their head. Although they cannot fly, they move by crawling and jumping, covering up to 1.25 miles per day. Mature females lay 80 to 100 eggs in the soil.

Mormon cricket populations are cyclic and gradually increase over several years, especially under favorable weather conditions. At peak densities, populations reach three or more insects per square yard. Outbreaks last many years and intensify without consistent monitoring and control efforts.

Our Response

Recognizing the urgency of the situation, the Extension educator launched a program focused on building

partnerships to manage the large-scale infestations across tribal rangelands. The Extension educator worked closely with multiple tribal departments to coordinate a unified response. Together, they developed and implemented an integrated pest management strategy combining field surveillance, public education and targeted treatment methods to mitigate the outbreak's impacts.

A critical partnership was established with the Idaho State Department of Agriculture (ISDA) Grasshopper and Mormon Cricket Control Program, which provided a technical team for surveillance and bait for treatment. ISDA requires site evaluations to confirm species composition and densities before approving bait distribution. To qualify for the program, landowners or managers must:

- Own or manage at least five acres of agricultural use pasture, crop or rangeland, and
- Experience grasshopper or Mormon cricket infestations that meet the economic threshold (eight grasshoppers or three Mormon crickets per square yard).

The Extension educator arranged site tours with ISDA staff and tribal representatives. Once infestations were verified, the tribes qualified to receive bait. In addition, the Extension educator:

- Provided education and treatment information to landowners, livestock producers, the public and the tribes.
- Coordinated safe, effective baiting operations with the Tribal Agricultural Resource Management Program.
- Fielded calls and questions from community members.

Program Outcomes

Community outreach and education reaches multiple tribal entities and hundreds of community members,

ensuring local needs and perspectives are central to the program's design and delivery. Community members learn how to identify and manage Mormon crickets. As awareness increases, infestations are reported earlier each year, allowing bait to be applied at the most effective time in the insect's life cycle. The coordinated effort has had a significant and measurable impact:

- Over 25,000 rangeland acres have been treated.
- More than 90,000 acres of valuable tribal rangeland have been preserved and protected from additional infestations and severe vegetation loss.
- Forage production has been maintained to support cattle and wildlife grazing.

The Future

As Mormon cricket populations fluctuate and climate conditions evolve, sustainable pest management will require continued collaboration, innovation and adaptability.

Looking ahead, UI Extension in Fort Hall will:

- Expand monitoring efforts using GPS mapping and other technologies.
- Continue strengthening relationships with tribal departments, members, producers and ISDA.
- Coordinate future treatment efforts to ensure a timely and effective response.

By bridging science, education, and land stewardship, this work supports the resilience of tribal rangelands and the livelihoods of producers, preserving both ecological and cultural integrity.

Cooperators and Co-Sponsors

Agricultural Resource Management Program; Idaho State Department of Agriculture; Land Use Policy Commissioners; Livestock producers and landowners; Range, Fish and Wildlife, and Roads Departments; Shoshone-Bannock Tribes

FOR MORE INFORMATION

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