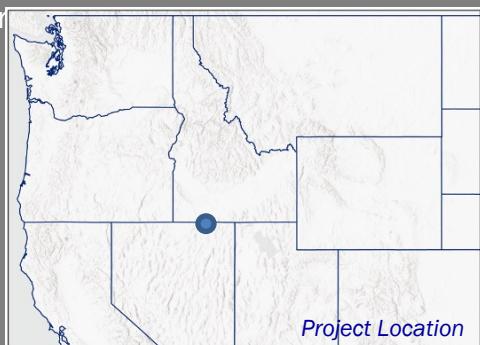


COLLABORATION AND COMMUNITY ENGAGEMENT

Growing Food Sovereignty with Hoop Houses on the Duck Valley Reservation



Food deserts, areas with limited access to nutritious food, are particularly common on Native American reservations. To address this, the University of Nevada Cooperative Extension (UNCE), in collaboration with Native American Tribes across northern Nevada, initiated the Hoop House Project. This project aims to enhance food availability and nutrition through constructing hoop houses for individual families, conducting site visits, and organizing community-wide training workshops. Hoop houses, simple greenhouse structures relying on passive solar heating and natural ventilation, protect plants from harsh growing conditions. Hoop houses are cost-effective and low-maintenance, making them accessible to small-scale growers.



Seeding Winter Triticale, a Hardy Wheat Variety, Inside a Hoop House

USDA Southwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE



KEY ISSUES ADDRESSED

Economic and geographic challenges hinder access to fresh produce for many residents on Native American reservations. Often, Tribal members must travel long distances to buy fresh produce, forcing reliance on cheaper processed foods from closer convenience stores. Northern Nevada's arid climate, poor soils, and high altitude make at-home gardening challenging, even for those with resources. Traditional food production practices such as gardening have declined over time, resulting in people eating fewer fruits and vegetables. Reversing this trend will require reconnecting with and reinvesting in their heritage of subsistence gardening, a tradition which many Tribal members recall their elders practicing.

PROJECT GOALS

- Construct hoop houses to increase availability of healthy, fresh produce on the Duck Valley Reservation
- Provide resources for growers to adapt to challenging conditions and use their hoop houses efficiently
- Engage youth in gardening to foster ownership and reconnection to sustainable food sources

SHARING GARDEN SURPLUS

With good support and growing conditions, hoop houses can allow many families to share surplus with their community, continuing the valued tradition of sharing with others in times of abundance.



Demonstrating How to Construct a Raised Bed Grow Box

PROJECT HIGHLIGHTS

Developing Hoop House Expertise: The Hoop House Project has helped participants construct and maintain over 80 hoop houses. The project provides labor and materials, runs training workshops, and returns to communities for regular check-ins to discuss growing strategies and address problems.

Expanding Interest: Participants in the Hoop House Project have developed skills and expertise which are in high demand, and teams of knowledgeable constructors have been contracted to build hoop houses in neighboring areas. Several other Tribes in Nevada, Arizona and Oregon have expressed interest.

CARES Act Building Boom: After years of gradual building, the CARES Act funding provided the means to build 50 new hoop houses in 2020. Scaling the project up was a challenge, but made possible with community support and extra staff.

Community Education and Youth Engagement: The Hoop House Project team teaches all community members, especially youth, how to use the structures. Training topics include turning rocky ground into arable land, and knowing when produce is ripe. Reaccessing this knowledge is crucial for reclaiming traditional food systems and increasing food sovereignty.

Collaborators

- Shoshone-Paiute Tribes
- Duck Valley Conservation District
- University of Nevada Cooperative Extension

CART Authors: Annika Mayer & Erin Connolly, Drought Learning Network (DLN), October 2024.

Photos courtesy of Reggie Premo, UNCE. For more information on CART or DLN, contact Karlee Jewell

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LESSONS LEARNED

When selecting recipients for hoop houses, it is important to choose participants who will sustain a continued investment in the project. Individual families who received hoop houses have embraced the responsibility of ownership and have maintained their gardens for many years. In contrast, plots operated by the Tribal government sometimes went untended due to employee turnover.

Investment in quality materials and infrastructure resulted in longer-lasting and more productive hoop houses. While some PVC models assembled by the team were easily damaged by the weather and required frequent repairs, prefab kits from Oregon Valley Greenhouses were sturdy and easy to assemble.

Preventative action is key to avoid pest problems. In 2022, gardeners in Owyhee struggled with an influx of Mormon crickets (*Anabrus simplex*). Next season, gardeners will focus on prevention. For example, placing physical barriers around plots can stop swarms from invading crops. Gardeners can also build raised beds or grow boxes inside the hoop houses to protect crops from burrowing animals like ground squirrels (*Urocyon canus*).

NEXT STEPS

- Establish a community farmer's market to sell surplus produce, provide an accessible source of fresh fruit and vegetables for the Duck Valley community, and raise funds for hoop house maintenance
- Seek grant funding to subsidize hoop house construction and run home gardening workshops to expand participation

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Broccoli Growing In a Raised Bed Grow Box Inside a Hoop House