John T. Harrington Forestry Research Center

The John T. Harrington Forestry Research Center (JTH FRC), located in Mora, New Mexico, conducts applied research to improve post-wildfire forest restoration across the southwestern United States. The center integrates research spanning reforestation planning, nursery production, seedling establishment and long-term forest recovery to develop science-based solutions that enhance forest resilience, protect ecosystem services and inform management under a changing climate.

SCAN THE QR CODE TO VISIT OUR WEBSITE
morasc.nmsu.edu

MISSION

The mission of the John T. Harrington Forestry Research Center at Mora is to advance the understanding of restoration activities in forested areas in New Mexico through multidisciplinary research, education, and stakeholder collaborations.

VISION

Leading the nation in climate-smart reforestation research that supports the entire reforestation pipeline from seed to nursery systems to tree planting.

VALUE ADDED TO NEW MEXICO

- Leads research on reforestation in semiarid, fire-affected landscapes.
- Develops climate-resilient planting stock for New Mexico forests.
- Improves planting strategies for restoring large burn scars and watersheds.
- Advances nursery technologies that increase seedling survival and establishment.
- Supports efficient investment of limited reforestation resources.
- Benefits forest health, watersheds, wildlife habitat and rural communities.
- Supports the New Mexico Reforestation Center's expansion of seedling production and post-fire restoration capacity.

Research Focus

Research at the JTH FRC integrates ecological, social and operational approaches to improve post-wildfire reforestation. Field studies evaluate nucleation planting strategies, nursery drought conditioning and seed-source effects on seedling establishment, growth and resilience. These studies are designed to improve restoration efficiency, promote forest heterogeneity and increase resilience to future wildfire and drought. Nursery and laboratory research also examines improved container designs, locally sourced biochar as an alternative to peat, and the effects of drought conditioning on seedling hydraulic function.

The center also develops tools to improve reforestation planning and investment. Current work evaluates the social benefits and costs of reforestation, models post-fire carbon stocks and identifies emerging restoration priorities. Together, these efforts help direct limited resources toward areas where reforestation will provide the greatest public and ecological benefits. The research also supports watershed recovery, carbon storage, wildlife habitat and the long-term resilience of forests and rural communities across New Mexico and the Southwest.



The College of Agricultural, Consumer and Environmental Sciences (ACES) is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through research, teaching and Extension.

Recent Impacts

- Developed a framework to quantify the social benefits and costs of post-wildfire reforestation, helping decision-makers prioritize investments that provide the greatest public benefit.
- Demonstrated that nursery drought conditioning can have lasting effects on the survival, growth and drought resilience of planted ponderosa pine and aspen, while confirming the importance of seed source in determining field performance.
- Advanced understanding of drought-stress memory and the relationships among tree hydraulic traits, growth, drought resistance and climate adaptation, with direct applications to nursery production.
- Evaluated innovative container systems to improve root architecture, stress tolerance and seedling establishment under arid conditions.
- Developed carbon-stock models to improve post-fire reforestation planning in the Southwestern United States.

COMMUNITY ENGAGEMENT

The John T. Harrington Forestry Research Center hosted the groundbreaking of the New Mexico Reforestation Center, bringing together federal, state, local, university, tribal and community partners in Mora County. The event marked the beginning of a major collaborative effort to expand seed collection, nursery production, research, education and workforce development needed to restore New Mexico's forests and watersheds after severe wildfire.



New Mexico State University is an equal opportunity employer and educator.
NMSU and the U.S. Department of Agriculture cooperating.