



Warren Wilson
COLLEGE

Land Innovation Program

As an institution of higher education, we are deeply committed to the development of sustainable land management practices in this age of a rapidly changing climate. With an 1,100 acre working landscape as our living laboratory, we test the economic and environmental viability of current land management practices, measure the value of new ideas, and serve as a model practices site. In 2019, with support from a generous funder, Warren Wilson College initiated a new Land Innovation Program dedicated to these goals and appointed a Dean of Land Resources—Warren Wilson College Forestry Professor Dr. David Ellum—to lead our commitment to sustainable land management innovation and to educational leadership for best practices in the region and beyond.

Landowners world-wide, not just in Appalachia, are struggling to identify land management practices that will prove resilient and economically viable in a rapidly changing climate. Too many landowners these days are forced to quit their operations and sell their land, which often results in fragmentation of the landscape and increased carbon emissions. Research tells us that commercial agriculture practices, too, are exacerbating our carbon outputs. Our new Dean of Land Resources is engaging local, national, and international leaders in the examination of innovative, sustainable, economically viable land management practices to increase economic options for landowners to keep their land while also mitigating the impacts of climate change.

Warren Wilson College's long-term goal is to build upon its legacy of innovation and commitment to sustainable practices and to create "The Institute for Innovative Land Management at Warren Wilson College"—a collaborative research hub for testing and disseminating sustainable land management practices for the region and beyond. Our Land Innovation Program heralds this work, and here are some recent examples of research initiatives that pursue these goals:

- *Non-timber forest products as forest conservation tool*: For the past several years, we have supported the research and production of native Appalachian plants of economic value on campus. Recently, in our 3,000 square foot research shade house, we have been developing seed propagation methods for species that are over-harvested from the wild. This program is currently in a trademarking process, to be identified as "Guaranteed From Seed—Never Wild Harvested." Plants are available through the nursery trade and will educate the public about the importance of protecting wild plant populations from overharvesting. By 2021, we will expand our production to make plants available directly to landowners.

- *Agricultural diversification:* We have initiated an industrial hemp research and production program. This research is essential in developing sustainable agriculture systems for the region that are scale- and market-appropriate in the face of a changing climate.
- *Carbon sequestration research:* We are researching levels of carbon sequestration in the soil of our regenerative agriculture and rotational grazing techniques. Our goal is to mitigate the carbon footprint of our farm and work toward a carbon-neutral cattle operation.
- *Low-impact forestry and agricultural practices:* We have purchased new Belgian draft horses to replace our aging team. These horses enable us to teach and implement low-impact forestry and agricultural practices as alternatives to fossil fuel intensive operations.

Outreach and collaboration are central to the work of our Land Innovation Program. The following initiatives build our outreach and our impact:

- *Outreach:* The Conservation Exchange is a new initiative that includes a quarterly newsletter to a growing number of subscribers, and a well-attended campus lecture series on such topics as Climate Change and Phenology, Archaeology of the Swannanoa Valley, Bat Conservation, Walnut Syrup Production, and a week-long slate of public events for Earth Day.
- *Collaborations:*
 - Prince Rahim Aga Khan of the Aga Khan Development Network (AKDN), who has interest in our land management work as a model for rural communities, recently visited campus. The AKDN serves more than 50 million people per year and has received the Global Leadership Award from the United Nations.
 - Pro Silva, an internationally acclaimed integrated forest management organization with representatives from Austria, Germany and Slovenia, was hosted on campus, toured our silviculture and non-timber forest products operations and met with our faculty.
 - Ongoing partnership building with business owners who are interested in developing economically viable, environmentally sustainable options as the public demand grows for businesses to take responsibility for their role in climate change. Our upcoming “Blue Ocean” meeting represents our commitment to collaborative partnerships.

Learn more on the Land Innovation webpage: <https://www.warren-wilson.edu/about/land-innovation/>