



How can the Community become involved?

All are welcome at the Nexus. The site is located at the Watauga County landfill and is open for the public by appointment to come by and see the technologies at work:

The Nexus site is located beyond the recycling center at the top of the hill.

336 Landfill Road, Boone, NC 28607

Community Gardening Opportunities:

The Nexus project is open to community involvement. We have space for growing, a heated greenhouse to raise starts in, and several innovative soil amendments to boost the fertility of your home garden. Some of the offerings from the Nexus include:

- Raised bed plots
- Heated Greenhouse space
- Compost
- Biochar soil amendment

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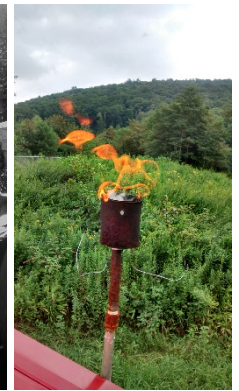
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Sponsors:



a student
design competition
for sustainability



THE NEXUS: BIOMASS GREENHOUSE HEATING SYSTEMS FOR SEASON EXTENSION

*Growing crops and
communities.*



About the Nexus

The Nexus is an Appalachian State University research project committed to improving the profitability of farming in the High Country and enriching the local community through the application of biomass management, renewable energy, value-added byproducts and season extension. This mission is supported by three major activities, which are:

- Faculty & Student-led research
- Community outreach
- Technology transfer

Through these activities we hope to make a sustainable difference in the lives of those who live in the High Country, and the students who study there

Nexus Highlights:

Grants awarded

- EPA P3 - Phase I & II (2014, 2015)
- BioEnergy Research Initiative, NCDA & CS (2015)
- TVA Ag & Forestry Fund, NCDA & CS (2013)
- EPA P3 - Phase II (2011)

Student Research:

Students at Appalachian State University are encouraged to use the Nexus as their research facility. Possible research crosses a wide-spectrum of disciplines, from biology and plant ecology to renewable energy technology and community development studies.

"I never would have believed when I started researching bioenergy technologies at the Nexus that I would end up designing a community outreach program. The Nexus opened up a world of opportunities for me.

-Eric Neff, MS in AT 2015'

What is Sustainable Technology?

Sustainable technology seeks to tailor the choice and application of technology to the needs of the user and his or her community and environment. For the Nexus, that means designing low-cost, user-friendly technologies that help farmers turn their organic farm waste (manure, wood & crop scraps, etc.) into valuable soil amendments like compost and biochar as well as energy to heat a greenhouse!

Technologies currently at the Nexus:

- Solar Photovoltaics
- Solar Thermal Collectors
- Automated Thermal Battery heat storage
- Residence-scale Wind Turbine
- Anaerobic digester
- Biochar maker
- Compost Heating system
- Integrated Aquaponics system



What is Technology Transfer?

No matter how well a technology is designed, potential users will still need instruction on how to get the most out of it. The Nexus aims to introduce bioenergy technologies to farmers and help them get the most out of a system.

Aims of Technology Transfer:

- Decide whether a bioenergy technology could work for a farmer
- Help the farmer design the system to suit his or her needs
- Assist in installation and maintenance of the system
- Help troubleshoot issues

Technology is inherently different for every user, especially depending on their needs and resources. The knowledgeable faculty that administer the Nexus are pledged to provide support for people interested in getting the most out of their greenhouse.