

BIOMASS: Alternatives to Pile Burning?

Evaluating the Performance of an Air Curtain Burner and a CharBoss

APRIL 24–28, 2023

Coconino County Public Works Facility
600 E Commerce Avenue
Flagstaff, AZ 86004

OPEN HOUSE DAYS

Members of the public are invited to observe the trial operation and learn about biomass disposal and biochar production.

Tue, April 25 & Thu, April 27

10 a.m. – 4 p.m.

Air Curtain Burner



CharBoss



The Ecological Restoration Institute at Northern Arizona University, in collaboration with Coconino County, University of Arizona Cooperative Extension, and USDA Forest Service Rocky Mountain Research Station, will run a **one-week trial** evaluating the performance of an **Air Curtain Burner (ACB)** for biomass disposal and a **CharBoss** for biochar production. The trial seeks to broaden our knowledge of using both ACB and CharBoss technologies to manage forest biomass. This trial is partially funded by the USDA Forest Service Rocky Mountain Research Station.

KEY COLLABORATORS

- **Han-Sup Han**, Ph.D., Professor and Director of Forest Operations and Biomass Utilization, Ecological Restoration Institute, Northern Arizona University
- **Jay Smith**, Forest Restoration Director, Coconino County Flood Control District
- **Deborah Page-Dumroese**, Ph.D., Senior Scientist & Research Soil Scientist, USDA Forest Service, Rocky Mountain Research Station
- **Nate Anderson**, Ph.D., Research Forester, USDA Forest Service, Rocky Mountain Research Station
- **Christopher Jones**, Extension Agent, Forest Health Programs, University of Arizona, Gila County Cooperative Extension

Air Curtain Burners: Dispose of slash and other biomass residues in a way that significantly reduces smoke and other emissions. The method blocks various air pollutant emissions using high velocity airflow across the top of the container, referred to as an “air curtain.” At the same time, they also minimize ember escapes, soil damage, and burn scars.

CharBoss: Made by Air Burners, Inc., has the added benefit of producing biochar as a forest product. Biochar is a high carbon material that adds soil organic matter, can improve soil nutrient retention and water holding capacity, and can make an excellent addition to compost.



THE UNIVERSITY OF ARIZONA
Cooperative Extension

