Black carbon produced from wood chips, plant residues, manure or other agricultural waste products is known as biochar. When utilized correctly, biochar can help increase soil carbon, revitalize nutrient impoverished soils, and boost plant productivity. NCR-SARE has funded several research projects that have examined at how biochar interacts with soil and crops in order to maximize its potential benefits.

NCR-SARE Project Sampler

To view SARE’s entire biochar portfolio, or just the North Central region’s, visit https://projects.sare.org. For selected NCR biochar grants, see the reverse side.

Fruit and vegetable growers and grower organizations have called for more research into biochar and its potential use in vegetable cropping systems. Iowa grantees collected data on nutrient leaching, soil microbial population dynamics, crop growth characteristics, and yield. See https://projects.sare.org and search for project number GNC13-166.

Researchers at Purdue University conducted field experiments to assess the effect of biochar produced from different feedstocks on crop growth and pests in a three-year vegetable rotation on six Indiana vegetable farms. See https://projects.sare.org and search for project number LNC14-359.

A producer fabricated three kilns to produce charcoal for agricultural purposes and evaluated their performance. He found that soil treated with a mixture of composted animal manure and bio-char had remarkable tilth and water mitigation effects that were evident after the first application. See https://projects.sare.org and search for project number FNC10-807.

SARE’s four regional programs and outreach office work to advance – to the whole of American agriculture – innovations that improve profitability, stewardship and quality of life by investing in ground-breaking research and education.
**Research and Education Grants**

Evaluating the Impact of Biochar on Soil Fertility and Crop Productivity through Farmer Participatory Research and a Student Internship Program  
Kevin Gibson, Purdue University, Indiana, LNC14-359, $194,732

**Farmer and Rancher Grants**

Growing Organic Blueberries Using Biochar  
Richard Mareske, Sacred Earth Arts, Michigan, FNC17-1087, $7,500

Biochar Kiln Fabrication and Operation  
John Topic, Minnesota, FNC10-807, $3,893

Linking Local Food and Forests: Making the Connection with Biochar  
Jonathan Sowash, Ohio, FNC09-792, $17,983

**Graduate Student Grants**

Effects of Biochar on Soil Nutrient Retention and Microbial Communities in Vegetable Cropping Systems  
Brandon Carpenter, Iowa State University, Iowa, GNC13-166, $9,367

For information on more SARE-funded biochar projects search the SARE projects database: https://projects.sare.org.