

Leeds Biochar Initiative

Pilot study in urban agro-ecology

Urban metabolism, agro-ecology and the challenge of food security

A multi-partner, multi-disciplinary action research project to tackle food security via agro-ecology:

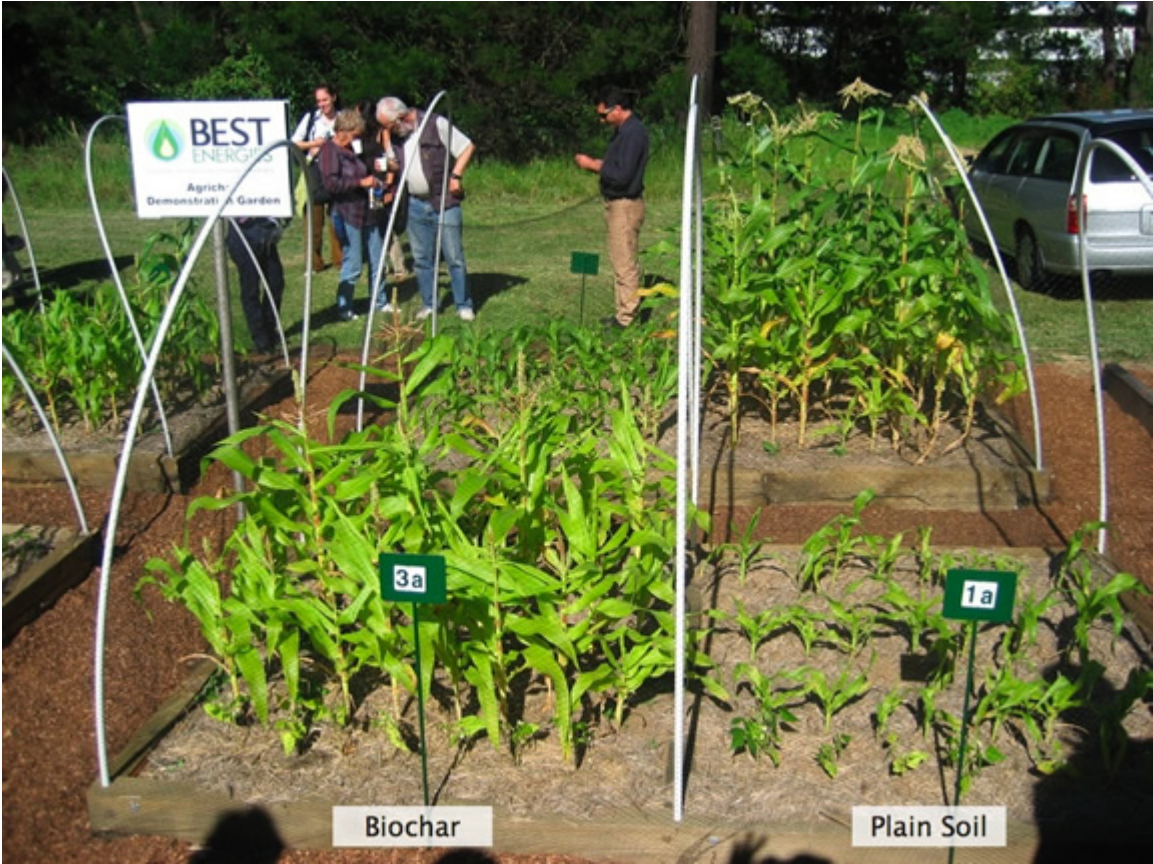
- Increase food production (ecological intensification)
- Extend sustainable public land management (and experiment with food commons)
- Improve ecological practices and affect metabolic processes: nutrient recycling, soil quality

Specifically this pilot study supports the education and training elements of the project

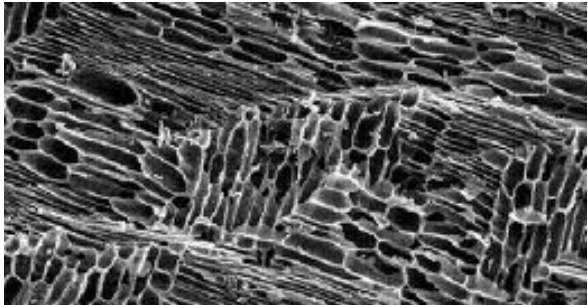
Introduction to biochar

- Biochar is a potentially useful soil amendment strategy which can improve soil quality, reduce the use of mineral fertilisers, reduce greenhouse gas emissions and sequester carbon.
- The project will investigate the application and environmental impact of using biochar in urban agriculture
- The project strives to promote learning and stimulate public interest through experimentation.

Potential for biochar

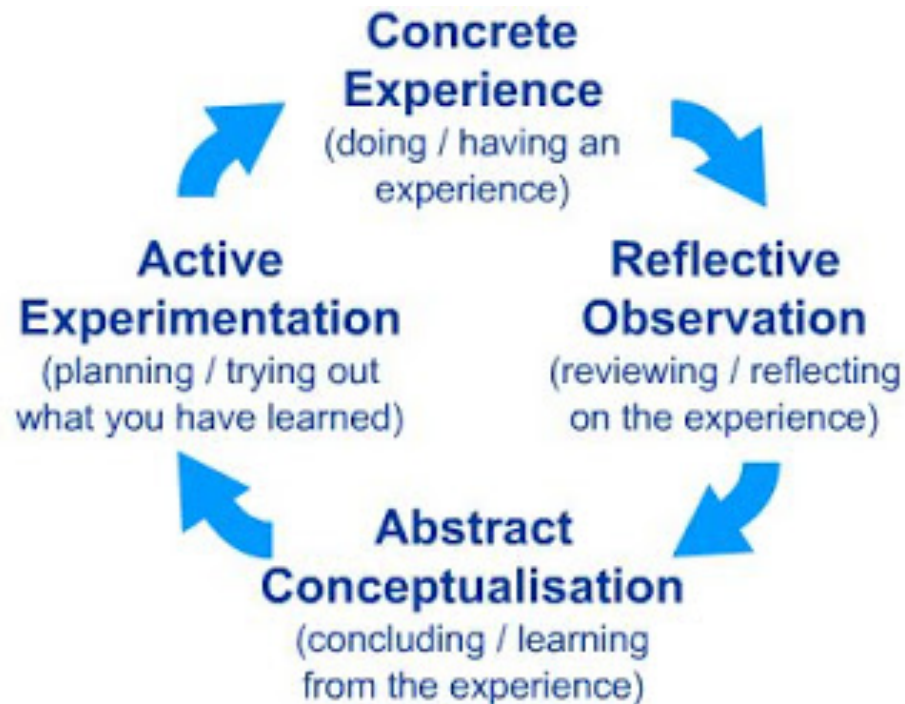


Biochar



Biochar under microscope

Objectives



The project is intended to:

- Provides training and facilitate learning
- Identify applications
- Promote environmentally sound practice

Activities

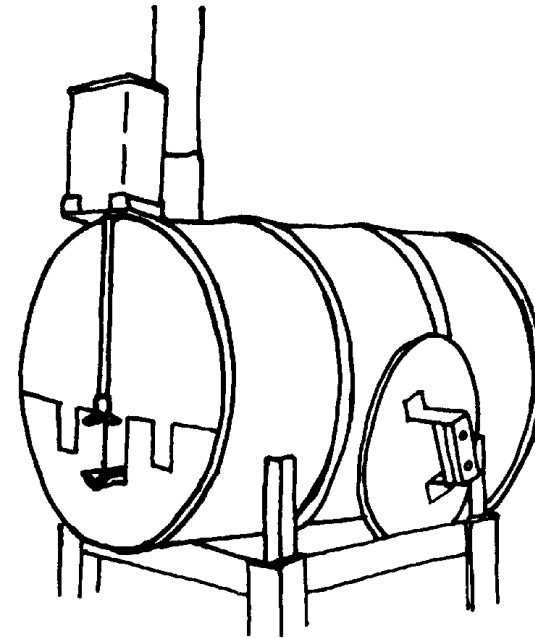
- Organise workshops and activities
- Provide expertise
- Link current networks
- Provide training
- Assess the risks and benefits



Challenges

- Biochar production
- Application
- Environmental impact

- Suitability ?
- Safety ?
- Sustainability ?



Agenda



- 1. Introduction to biochar – Andy Ross (U of Leeds)**
- 2. Biochar soil interactions – Andy Cross (UK Biochar research Centre)**
- 3. Flash presentations - biochar production and EU Fertiplus project**
- 4. Biochar Test Kit – description of activities, reporting of results**
- 5. Discussion**



pH Testing

Materials and equipment:

- pH testing buffer strips
- pH temperature chart
- bucket
- 1 small plastic tub

*These items are provided in your pack

Method

1. Dry a hand full of soil and small amount of buffer (separately) before use.
2. Assemble in the order of 200°C for 1 hour.
3. Measure soil pH by taking approx. 4g of soil (up to soil in hand) and mixing in to the buffer.
4. Dip the pH strips into the soil and remove.
5. Compare your soil pH to the pH chart and record the pH.