

COMPOSTING AND BIOCHAR PILOT PROJECT 2022



Composting and Biochar making with crop residues -Pilot Project

As a part of this pilot project, Aranya has started using crop residue for compost making with different crops. This year we have adopted Bidakanne village for collection of crop residues. Women farmers from Bidakanne have gone to different farmer fields, collected crop residues and put them as a heap in a location that was assigned to make a compost. This project has started in April 2022 and is in progress.

This project is being carried out in two districts of Telangana- Nirmal & Sangareddy.

Nirmal District: Rice husk is being used to convert as bio char for soil improvement along with the compost, to enhance soil fertility and for soil amendments. Bio char is helpful for mobilizing soil nutrients and slow release of carbon storage.

Sangareddy District: For soil amendments in dry lands, compost is being made by using crop residues and addition of activated bio char for soil fertility management.

Sugar cane: After sugarcane harvest, most farmers tend to burn their crop land to clear dried leaves. Instead of burning, sugar cane leaves were collected at a place and awareness has been created among the farmers not to burn dried leaves instead compost it.

Red gram: In rural areas, Red gram crop residue after the harvest was used as a frame for making thatch roof along with dried sugar cane leaves for the cattle sheds. These practices are now disappeared. Farmers are now going for tin roofing for cattle sheds and LPG gas for cooking.

Redgram crop residue collection for composting:





Sugar cane crop residue collection for composting:



Composting Process :



Biochar making:

Biochar has drawn remarkable consideration for soil improvements due to their enhanced soil fertility, nutrient immobilization and slow-release, carbon storage, which are some of the handful of benefits for soil amendments made with biochar. These enhanced properties are a result of the cumulative effects arising from the changes in the microbial activities in soils along with the agrochemical application. The community structure of the soil biota alters, nutrients transformation rates changes, and so is the release of nutrients from the applied agrochemicals. This chapter reviews the linkages between the biochar applications in soils and the available nutrients for plant growth arising from the agrochemical applications to soils. Furthermore, the alteration in mechanisms of nutrient uptake for food crops growth has also been reviewed upon biochar amendments in soils. Biochar significantly affects the soil conditions and plant growth, which needs further understanding. The chapter gives insights to future directions with regard to the implications, drawbacks of using biochar as soil amendments for an effective biochar–plant nutrient interaction.

Activated bio char making demonstration by Dr. N saibhasker Reddy bio char expert



