

A strategy group gathered to discuss current plans for development and deployment of pyrolysis or gasification systems producing biochar in the Central Valley. Attending the meeting was:

- UC Merced – Associate Vice Chancellor Peter Schuerman, Associate Professor YangQuan Chen, and Assistant Professor Gerardo Diaz
- Don Smail – Economic Development Manager, City of Manteca
- Thor Bailey, Jeff Donnelly – Green Carbon Nexus & Applied Biomass Technicians

The proposed starting geographic scope is San Joaquin County Region (SJCR) region, AKA “Greater Silicon Valley” There has been about 2 years of preliminary discussion with Green Carbon Nexus (GCN), Applied Biomass Technicians (ABT) and others already. The SJCR hub has unique and complex options for biomass conversion due to the location at the Ag/Urban interface for Sustainable Conservation solutions. They include crop production, food processing and organic by-products. It provides a biomass business assessment area of approximately 30 miles in diameter Ag and Urban biomass feedstock logistics, conversion technology and economics options for AB-32 compliant development options.



The group discussed the current biochar field project under way at Manteca Unified School District (MUSD) farm, designed to measure crop growth and water conservation of a 2 acre biochar-amended plot as compared to an adjacent 2 acre control plot of native soil without biochar. Commencement of that field study is currently on hold until funds can be obtained to purchase the biochar material for the study. The proposed “Biomass Mitigation Fund” may be the best option. We also discussed other strategies for using biochar, including agricultural waste mitigation; value as a stable method for carbon sequestration; and use for water filtration and Ag runoff mitigation.

In the academic area topics included the various roles of higher education in developing career pathways and new curriculum around biochar methods and sustainable agriculture; measurement of soil moisture and crop growth by using special UAV drone aircraft; and the prospect for future biochar field studies in different locations in California with varying soil types and using different variables, including use of biochar produced from local ag residue and comparing results of using raw versus pelletized biochar.

Lastly, the discussion addressed economic development strategies for locating biochar production facilities close to both users and Ag residue supplies, and identifying methods to secure a stable, reliable and traceable supply and price for Ag residue, also known as “commoditizing” the Ag waste streams.