

# Proposition for tutored project M2 MAFEN

## Agronomic potential of coffee grounds biochar for soil improvement and climate resilience in Mediterranean agriculture

### Company:

Cafés du Sud SARL  
126 Avenue d'Estienne d'Orves  
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Specialty coffee roaster based in Southern France, focusing on sustainable agriculture, circular economy, and premium coffee experiences for both local and international markets. The company develops innovative projects around coffee valorization, including biochar production from coffee grounds, cultural events, and partnerships in the office and hospitality sectors.

### Tutor: clement@ooka.fr

Clément RIBEAUD, Founder and Manager of Cafés du Sud SARL. Certified Q-Grader with extensive expertise in specialty coffee roasting, circular economy projects, and agro-food innovation. With over 10 years of experience in entrepreneurship and sustainable development, he is leading European-funded projects on the valorization of agricultural by-products, including feasibility studies on producing biochar from spent coffee grounds.

### Context:

Climate change and water scarcity threaten Mediterranean agriculture. At the same time, large amounts of spent coffee grounds (SCG) are discarded every year, creating waste management and environmental issues. Producing biochar from SCG offers a circular solution: improving soil water retention, fertility, and microbial habitats while sequestering carbon. This project aims to explore the agronomic potential of coffee grounds biochar in the context of southern France agriculture.

### Objectives:

- Conduct a literature review on biochar from SCG and its agronomic applications.
- Assess the potential effects of coffee grounds biochar on water retention, soil structure, and plant growth.
- Engage with local farmers to identify opportunities and challenges for biochar application.
- Provide practical recommendations for integrating biochar into Mediterranean farming systems.