

Agrinova - Biochar (Agrinova-B)

Alma College

📍 Alma, QC



ABOUT Agrinova-B

Agrinova - Biochar is a Technology Access Center affiliated with Alma College. The center is located in Mashteuiatsh in the Saguenay-Lac-Saint-Jean region of Quebec. It is dedicated to supporting companies in research and innovation for the development of biochars and pyrolysis co-products from forest and agricultural residues. The products developed are mainly intended for agricultural, forestry and environmental applications.



Contact Agrinova-B

👤 Régis Pilote

Director - Industrial environment and bioproducts

☎ [+1-418-480-3300x242](tel:+14184803300x242)

✉ regis.pilote@agrinoa.qc.ca



Follow Us:



Share with someone:



🌐 agrinoa.qc.ca

📍 640 rue Côté, Alma, QC G8B 7S8

🗣 Services offered in: French

📄 Request Interactive Visit: <http://interactivevisits.ca>



RESEARCH AND INNOVATION EXPERTISE

EXPERTISE

1. Drafting of R&D projects on potential applications
2. Analysis of the level of behavior of the biomass to be valorized
3. Analysis of the pyrolysis process yields (biochar, bio-oil, syngas)
4. Study of the effect of operating conditions (temperature, residence time) on the yields and characteristics of the products
5. Characterization of biochars and co-products
6. Agronomic experimentation to demonstrate the safety and performance of products
7. Scale-up of products under pre-commercial conditions
8. Real-time analysis of operating conditions to ensure product consistency
9. Economic profitability analysis
10. Product life cycle analysis and carbon footprint
11. Writing of customized reports
12. Financing research
13. Bioengineering of biochars for potting soils and soil amendments
14. Optimization of bio-oils as plant biostimulants and bioherbicides

Previous Research Projects

- Agronomic experimentation of biochars resulting from the thermochemical conversion of forest biomass in the Saguenay-Lac-Saint-Jean region using Biogreen® technology
- Establishment of a multi-resource thermochemical conversion research center for the development and production of biochar and derived bioproducts for agricultural, forestry and industrial use
- Knowledge transfer mission in Hungary and France for the production and valorization of biochars from the ÉTIA/VTGreen technology
- Experimentation of agronomic applications of biochars resulting from the thermochemical conversion of lignocellulosic materials
- Production and characterization of white birch biochars
- Potential for production of methane and bio-based alkanes from thermochemical conversion of lignocellulosic materials
- Development of biochars with a potential to reduce enteric methane emissions and improve the health of dairy cows
- Support in identifying promising markets for the production of pyrolytic products from forest biomass
- Realization of projects leading to business cases for products resulting from the thermochemical conversion of lignocellulosic materials
- Experimentation of the pyrolysis of forest residues with a view to developing high-energy pellet products
- Experiment with a new wood vinegar obtained from pyrolysis of agricultural residues for weed control in crop cultures
- Experimentation on CO₂ capture with KOH modified biochar and performance evaluation in soil amendment applications
- Experimentation of micronization for energy recovery from CRD wood (construction, renovation and demolition)
- Trial of treatment of coffee residues in pods
- Experimentation of pyrolysis on Biogreen technology for the recovery of coffee grounds
- Operationalization of a thermochemical conversion center for the production of biochar and derived products
- Study of the potential of biochar as a means of reducing greenhouse gas (GHG) emissions in dairy production
- Development of the biochar sector in Saguenay-Lac-Saint-Jean
- Strengthening the innovation capacity of the biochar production sector
- Development of biostimulants from the thermochemical conversion of orphaned forest residues in the Saguenay-Lac-Saint-Jean region for plant and horticultural production
- Experimentation of pyrolysis of forest residues from landfills for the production of high value-added bio-oil
- Sine Saloum communities committed to climate resilience: straw coal production component
- Development and experimentation of liquid smoke for the smoking of cold cuts from bio-oils co-produced by the production of metallurgical biochar
- Conditioning and pyrolysis of woody material for the production of biochars and their experimentation on a pre-commercial scale

Fields of projects

- Agriculture: water and soil resources
- Crop production and primary plant products
- Forestry (silviculture, forest management)
- Agricultural chemicals (fertilizers, pesticides, herbicides)
- Other products and manufacturing processes

