NewCarbon Innovation to produce biochar in a novel, clean and cost effective way using biomass from forestry and sawmill waste

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Who are we?
Where are we based?
Where are we based?
Where are we based?
2014 – Research: The Challenges We Face

Why we got involved?

- Climate change - variability - extremes
- Soil fertility
- Water management
- Impact of hazardous pesticides and nitrogen fertilizers
- Burning of crop residue
- Alkalinity of soils
Why we got involved?

2014 – Research: Discovered Biochar

BIOCHAR PROPERTIES DEPENDS ON BIOMASS AND OPERATING CONDITIONS

By-product for plant extract
Wood sawdust
Crop residue
Green waste

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Why we got involved?

2014 – Research: Various Production Units at Various Scales
2014 – Research: Key Outcomes / Take Aways

• Gained an understanding of the major challenges

• Overview of the production methods and scale

• Identified possible gaps and opportunities
  • Biochar market / industry potential
  • Clean and cost effective production units at economic volumes
  • Matching feedstock availability / production / markets
  • Solving multiple issues / challenges with integrated solutions
Our Short HIStory

2014 – Research: Playing with fire, studying soil, food, animal health
NewCarbon Focus Areas

NewCarbon (Pty) Ltd

- Tech
- Biochar
- Agri
- Energy
- ....
Dream:

**Novel, clean and cost effective production unit:**
- Mobile / semi-mobile
- Able to process ±1 t/h dry feed
- Low cost / low tech / simple build and operate
- Feedstock:
  - Forestry waste / Invasive species / Sawmill waste
  - <30 mm top size,
  - Able to handle 60-70% moisture content (dry basis)

**Markets**
- Start developing markets for biochar and biochar solutions in South Africa
1. Produce a functional Prototype
   • First Pilot / Prototype by 2016
   • First Commercial unit / project by 2017
   • 100 Commercial units / projects across Southern Africa by 2020

A dream written down with a date becomes a **GOAL.**

A goal broken down into steps becomes a **PLAN.**

A plan backed by **ACTION** makes your dreams come true.

Greg S. Reid
Our Short HIStory

2015/16 – Development: Pilot / Prototype
Our Short HIStory

2015/16 – Development: Pilot / Prototype
Design Goals:
• US $500k - $1m
• ±5 ton/day biochar (±40 yd³)
• Energy self-contained using only wood and solar energy (and/or on grid)
• ± 1200 yd² total footprint
Application Imperatives

Planet  People

Sustainable Circular Economic Solutions

Profit
Benefits and Use

Production of Biochar from residues

Application for Green Growth

SUSTAINED AGRI-GROWTH

NewCarbon Lifecycle Solutions™
THANK YOU for your attention,
Please feel free to contact me

The Synergy of Science and Industry: Biochar’s Connection to Ecology, Soil, Food, and Energy