



PRODUCT SPECIFICATION SHEET

Southland Carbon Feed Grade Biochar

1. Product Identification

Product Name: Southland Carbon Feed Grade Biochar
Product Type: Carbonised Plant Material (Feed Additive)
Supplier: Southland Carbon Limited
Address: The Brickworks, 1257 Waipahi Highway, Pukerau 9772, New Zealand
Phone: +64 3 422 2240
Emergency: +64 21 465 067
Website: www.southlandcarbon.co.nz

2. Product Description

Southland Carbon Feed Grade Biochar is a high-purity, carbon-rich material produced from untreated wood biomass through controlled pyrolysis.

Manufactured at temperatures exceeding 500°C in a low-oxygen environment, the resulting product is a highly porous carbon structure with significant surface area and adsorption capacity.

Designed specifically for livestock supplementation, it supports digestive efficiency, toxin binding, and overall animal health.

3. Feedstock & Manufacturing Integrity

- 100% virgin, untreated wood biomass
 - No treated timber or contaminated feedstock used
 - No synthetic additives, catalysts, or processing chemicals
 - Controlled pyrolysis process
 - Water-only cooling method
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4. Typical Composition

Component	Specification
Fixed Carbon	80-90% (dry basis)
Ash (Mineral Content)	5-10%
Moisture Content	~20-30%

5. Physical & Chemical Properties

Property	Specification
Appearance	Black granular material
Particle Size	<1.5mm (typical)
pH	7.5 - 10.2
Bulk Density	~100 kg/m ³
Surface Area	350-550 m ² /g
Odour	Odourless
Solubility	Insoluble in water

6. Functional Characteristics

- High surface area & porosity → supports microbial colonisation
 - Adsorption capacity → binds nutrients for slow release and simultaneously binds toxins, and pathogens
 - Electron mediation properties → supports rumen microbial activity
 - Fibre-like behaviour → slows digestive transit time
 - Nutrient retention → supports efficient nutrient utilisation
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7. Key Benefits in Livestock Systems

Southland Carbon Premium Feed Grade Biochar may

- Improve feed efficiency
- Enhance nutrient uptake
- Bind mycotoxins and pathogens
- Reduce ammonia load in digestion
- Improve manure quality
- Potentially reduce methane and nitrous oxide emissions

8. Recommended Use & Dosage

Application	Guideline
General supplementation	0.25-0.8% of daily dry matter intake (DMI)
Free choice feeding	Animals self-regulate intake
Introduction	Gradual introduction recommended

9. Important Feeding Guidelines

- Do not exceed 0.8% of DMI unless directed by a veterinarian
 - Consult Veterinary nutritionist or Veterinarian for prescribed dosage
 - Monitor manure consistency as an indicator of dosage
 - Provide access to clean water at all times
 - Product should be slightly damp to minimise dust
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10. Use Restrictions

Do NOT feed biochar:

- During medication (± 48 hours)
 - During vaccination (± 48 hours)
 - To animals experiencing constipation or colic
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11. Safety & Handling

- Use dust mask when handling dry material
 - Wear gloves and eye protection if dusty
 - Avoid inhalation of fine particles
 - Dampen if required to suppress dust
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12. Storage & Shelf Life

- Store in a dry, covered area
 - Keep away from ignition sources when dry
 - Maintain moisture content where possible
 - Shelf life: Indefinite if stored correctly
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13. Quality & Compliance

- Manufactured in accordance with ANZBIG Code of Practice (2021)
 - Meets international guidelines for feed safety)
 - Produced under controlled, traceable conditions
 - No chemical residues or synthetic inputs
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14. Environmental Information

- Stable carbon (long-term sequestration)
 - Supports soil carbon systems
 - May reduce agricultural emissions (methane, nitrous oxide)
 - Enhances nutrient cycling in pasture systems
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15. Packaging Options

- 2L bags
 - 5L bags
 - 10L bags
 - 20L bags
 - Bulk bags (1,000 kg)
 - Custom supply options available
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16. Disclaimer

This specification provides typical values and guidance only. Product performance may vary depending on feed system, animal type, and environmental conditions. Users should conduct their own trials or consult a qualified advisor.