

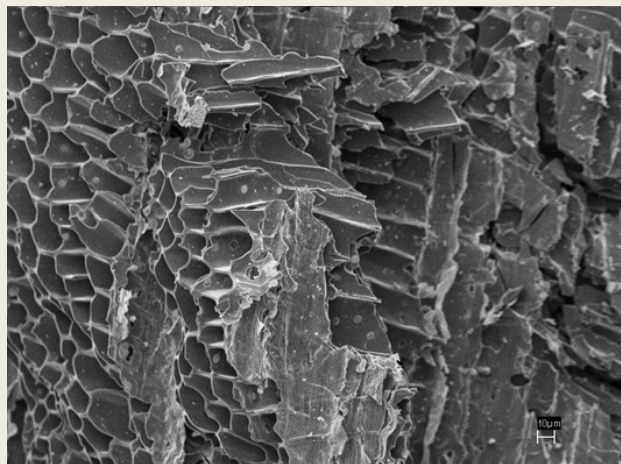
Impact of biochar amendment on phosphorus retention by riparian soil

Leo Condon - Eva Harris - Tim Clough

Agriculture and Life Sciences

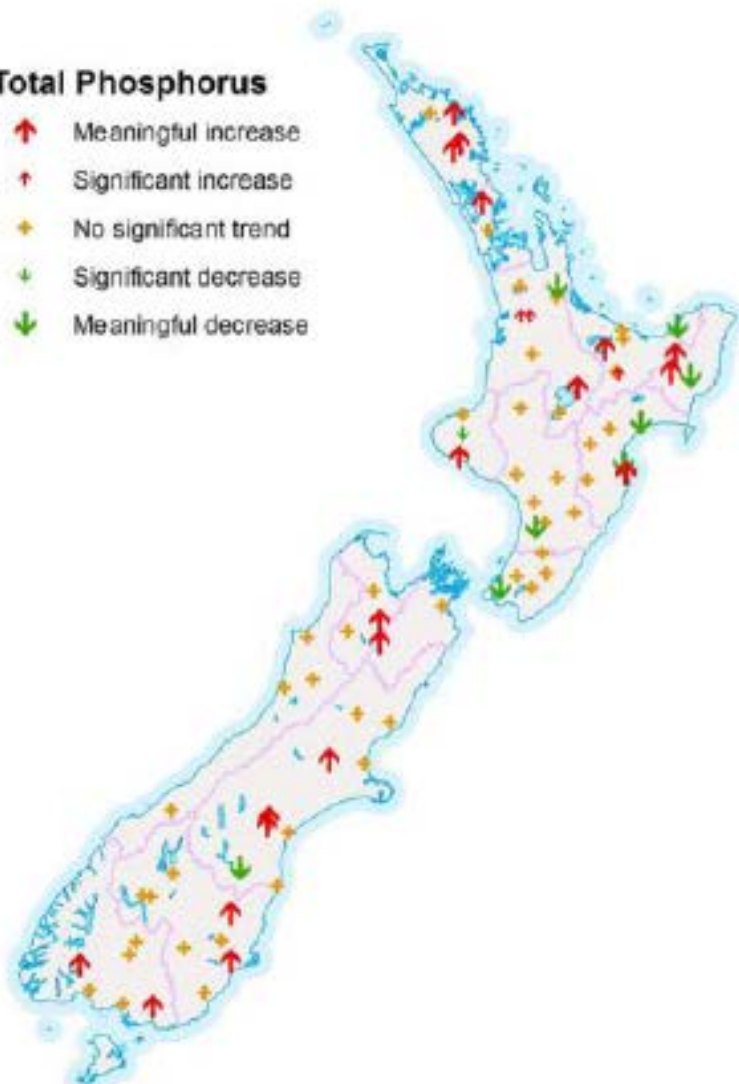
Lincoln University

New Zealand



Total Phosphorus

- ↑ Meaningful increase
- ↑ Significant increase
- + No significant trend
- ↓ Significant decrease
- ↓ Meaningful decrease



Dissolved Reactive Phosphorus

- ↑ Meaningful increase
- ↑ Significant increase
- + No significant trend
- ↓ Significant decrease
- ↓ Meaningful decrease

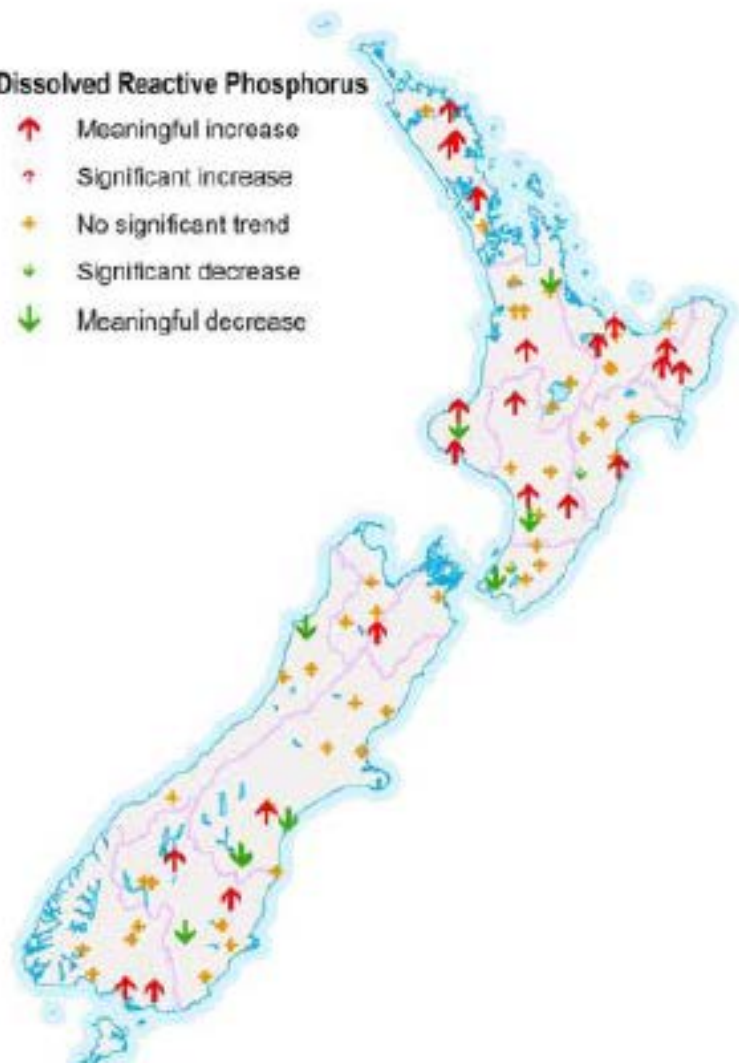
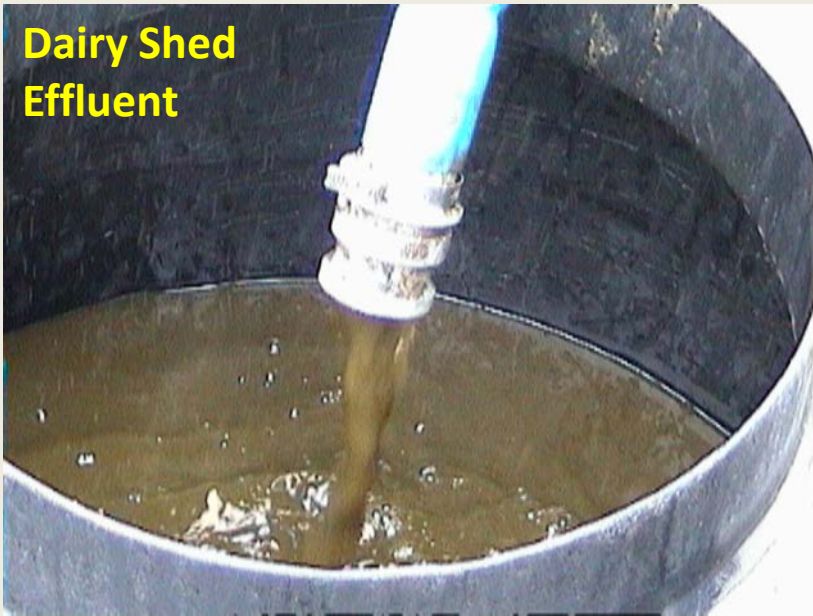






Photo by The Western Dairyman

Dairy Shed Effluent



pH = 7.3 - 7.5

Total N = 105 - 290 mg L⁻¹

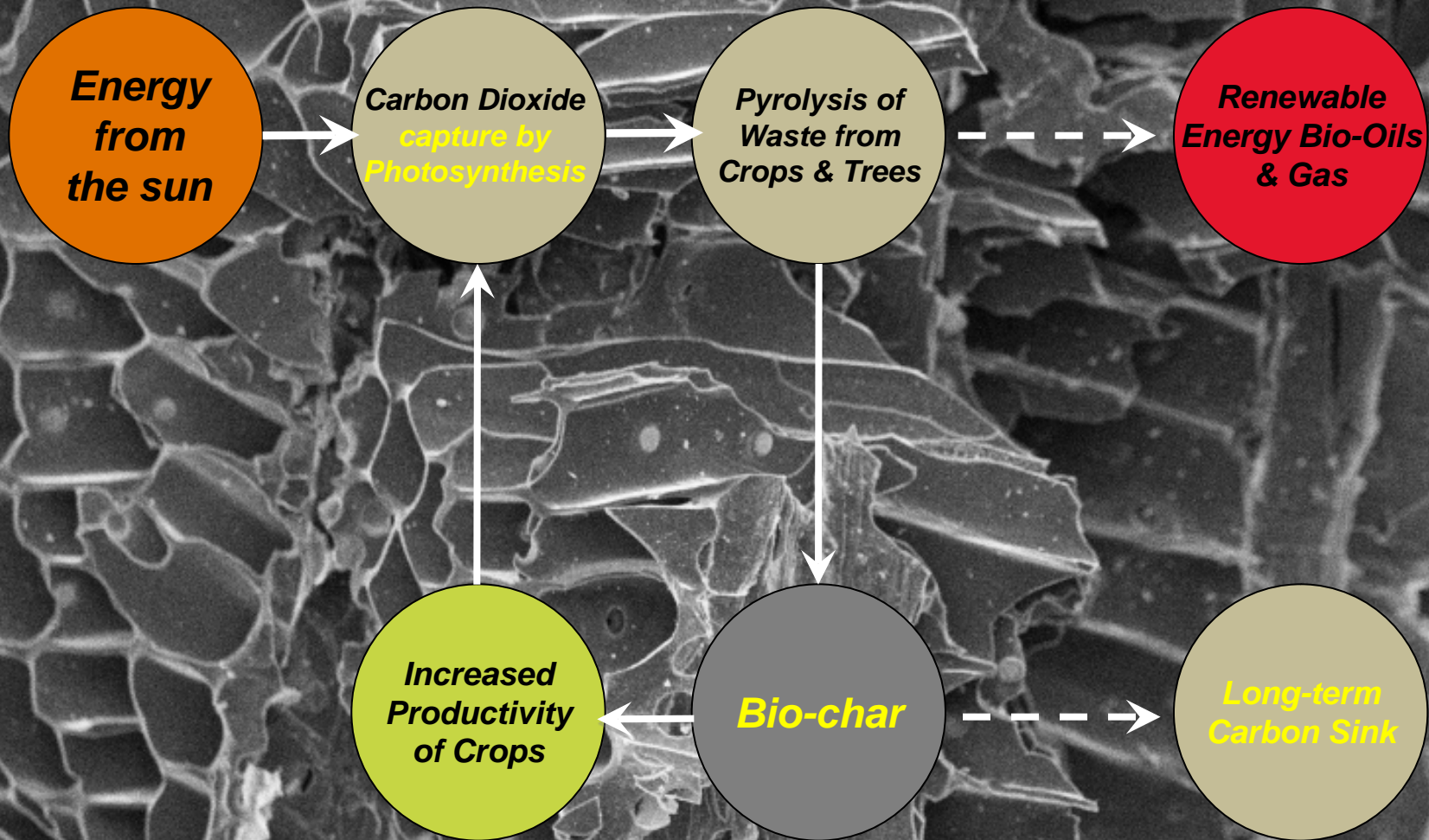
Total P = 21 - 62 mg L⁻¹

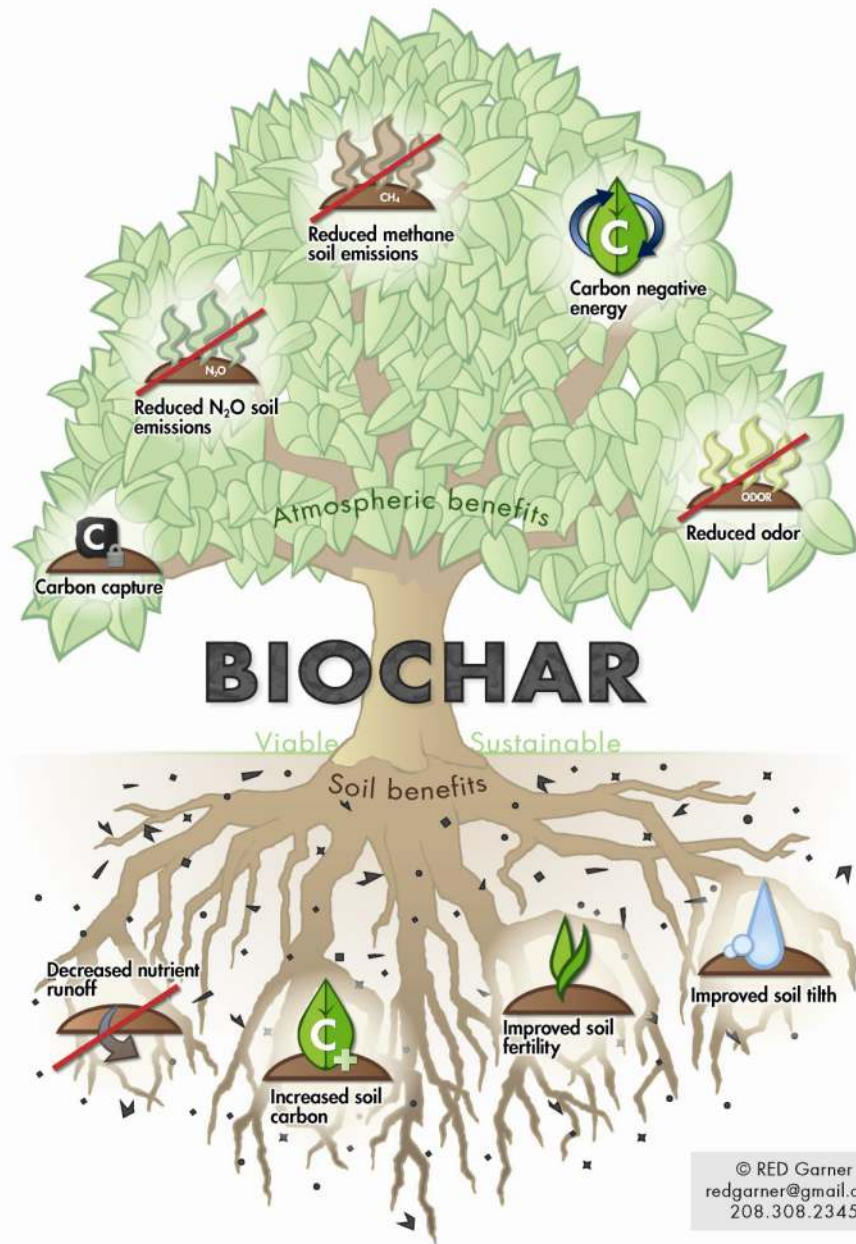
(50kg N ha⁻¹ = 7 - 12 kg P)

N:P = 4.1 - 7.2

solids = 0.17-1.27%









Cow urine patch = 500-1000 kg N ha⁻¹!

In grazed pastures urine patches are the main sources of nitrous oxide emissions and nitrate leaching



Cumulative N₂O-N flux from soil determined over 28 days incubation.

