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TASMANIAN INSTITUTE  
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# Soil benefits of controlled traffic in vegetable production

John McPhee (TIA), Peter Aird (Serve-Ag)



TIA is a joint venture of the University of Tasmania and the Tasmanian Government



# Highlights

- **Controlled traffic leads to many beneficial changes in soil structure**
- **Changes in bulk density and porosity were measured within a season of commencing controlled traffic operations in vegetable production**
- **Changes in soil structure led to:**
  - **Higher infiltration rates**
  - **Improved soil structure score**
  - **Fewer tillage operations**
- **Achieving long-term controlled traffic remains a challenge in diversified vegetable cropping due to many machinery incompatibilities and, in Tasmania in particular, complex topography**



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# Economic modelling of controlled traffic in vegetable production

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# Highlights

- **Modelling predicts that controlled traffic will increase average gross margin across the rotation for almost all situations in a range of farming enterprises**
- **Yield increase is the most significant factor influencing the economic performance of controlled traffic, although margins can be improved even without a yield increase**
- **There is a very high probability that Return on Investment in machinery will improve substantially with the use of controlled traffic**