Ministry of Business, Innovation & Employment

Plant & Food RESEARCH
RANGAHAU AHUMĀRA KAI

The New Zealand Institute for Plant & Food Research Limited

Harvest index for biomass and nitrogen in maize crops limited by nitrogen and water

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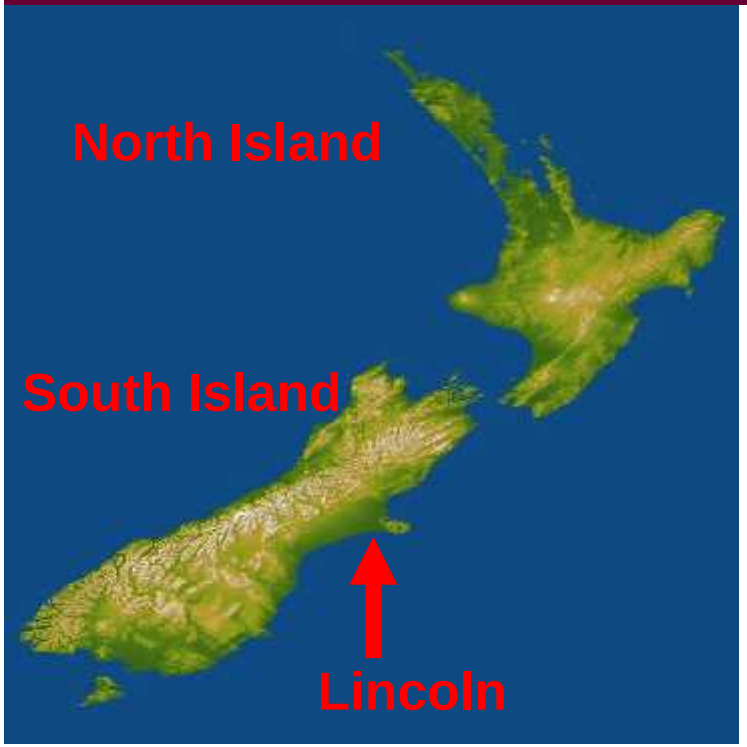
Background



Estimates of land under maize:

- Silage:
  - 6000 ha (1994-95)
  - 40,500 ha (2004-05)
  - 68,100 ha (2014-15)
- Grain:
  - 16, 500 ha (1994-95)
  - 20,500 ha (2004-05)
  - 21,600 ha (2014-15)

Distribution & farming system:

- Mainly North Island
- Area expanding SI for silage

Results

Key findings:

- Ng% increased with both water and N supply.
- The NHI was closely related to the amount of grain yield. Therefore, improving the HI of maize crops is one way to improve the ability of the crops to utilise N from both soil and fertiliser sources.
- Treatments with high water availability caused higher NHI values in crops.

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