DataLinker
Permissioned exchange of livestock data

ICAR Data Standards and Data Exchange Protocols session
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Background

• New Zealand Farm Data Initiatives (2013 to 2018)

• Funded through Primary Growth Partnerships (industry and government co-investment)
  • Transforming the Dairy Value Chain
  • Red Meat Profit Partnership

• Three workstreams
  • Code of Practice – better understanding of rights and practices
  • Data Standards – common vocabulary
  • DataLinker – standards-based interchange framework
Farm Data Code of Practice

• Created collaboratively by 60 industry companies/organisations

• Requires:
  • Understandable terms and conditions regarding data
  • Clear statement of rights and usage of data
  • Ability for farmers to get data in usable formats
  • Organisations have policy or processes that protect data

• Accreditation “logo” process
Data Dictionaries

- Item name
- Description
- Synonyms
- Data Types

Covering 9 areas from animal recording, spatial features, financial, to health and safety.

www.farmdatastandards.org.nz
What is DataLinker?

A framework – not a database, not a hub

• DataLinker registry
  Find messages supported, who implements, and terms for access

• Dynamic registration
  Electronically agree data access agreements, approvals process for connections, standard agreements.

• Farmer permissions where relevant
  Token based, using OAuth 2.0

• Navigable APIs
  REST, JSON-LD (based on the work of Open Ag Data Alliance)
What schemas already exist?

• Existing schemas:
  • Animals & Traits (animal recording, genetics)
  • Animal Merits (reporting EBVs, indexes, other merit measures)
  • Sessions (session-oriented animal data – weigh scales, etc)
  • Pasture Covers (paddock-level pasture cover assessment)
  • Pasture Growth (regional and farm location pasture growth forecasts)
  • Animal Carcass (meat processor carcass reporting)
  • Livestock Transactions (stock numbers)
  • Farm Profile (base farm description – prototype)
  • *Farm-scale spatial data (under development)*
Alignment with ICAR ADE

• Existing DataLinker messages able to inform ADE WG process
• Once agreed, ADE messages will be “Schemas” as far as DataLinker is concerned
• DataLinker looks after additional factors of discovery, data access agreements, grant of user permissions
• New Zealand (and some international) organisations already starting to use DataLinker
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