Dutch FADN: Integrating variables from multiple sources in electronic way

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Dutch Farm Accountancy Data Network
Linking with other databases
EDI Circle
Standard Business Reporting
Conclusions
Introduction Dutch FADN

- Data networks for agriculture, fisheries (including aquaculture) and nature management
- Agriculture: 1,500 farms
  - 1,100 farms: full detail
  - 400 farms: limited dataset (EU: economics/structure)
- Randomly selected from farm census and representative for 80% of farms and >90% production
- Regional offices for data assembling full detail farms
- Accountancy offices for assembling EU farms
Data collection methods (full detail farms)

- Nearly all available data on individual invoices
  - Value
  - Name product (>2,000 pesticides)
  - Quantity (kg, liters, ha)
  - Quality (fat content milk, capacity waterpump)
  - Date
  - Supplier/buyer

- Bank transactions (electronic)
- Inventory/questions
- Linking of databases
Research themes

- Off farm income
- Environment (water, minerals, energy, pesticides)
- Animal health (medical treatment and use of medicines)
- Nature management
- Other gainful activities (tourism, energy production etc.)
- Innovation
- Production chain (suppliers/buyers)
Comparison of the scores of the most sustainable farms with the average farm

- number of pasture days
- level of education
- pesticides use per ha
- P-surplus per ha
- N-surplus per ha
- family farm income per family work unit
- solvability (%)
- cost of production per 100 kg of milk
- energy use per ESU
- water use per ESU

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- water use per ESU
Why linking of databases?

- Selection of farms and weighting (census)
- Efficiency
- Data hard to assemble in a different way
- No expertise about how to assemble data
- Quality
- Timeliness
Linkages with databases

- Quality of soil and stock of roughage
- Water quality around the farm
- Animal health
- Food safety
- Bank transactions
- Administrative data (Census, nature management subsidies, identification and registration of animals, direct payments)
- Experiments with management software and nature quality
Electronic assembling of data: EDI-Circle

- Co-operation of 5 accounting offices, 5 feed producers, IT company and LEI
- Fixed electronic format for invoices
- Feed producer sends invoice to central database
- Access of database by internet for farmer
  …and with authorisation from farmer for accounting office, LEI and others.
- Every morning system checks if new invoices are available and imports data in FADN database
Organisations in the arable sector

- Agrifirm
- CZAV
- Farm
- Nedato: potatoes
- COSUN: sugar
- Soil Lab
- AgroVision
- Dacom
- EDI-Circle
- Rabobank
- AGRO CONNECT
  - EDI-CROP
- Accounting Offices
- LEI
- Bank data
Standard Business Reporting (XBRL)

Firms deliver three times financial data to:

- Chamber of Commerce
- Central Statistical Office
- Tax authority

SBR: Development of dictionary of financial terms and format (XML)

Result:

- Only one dataset has to be delivered
- Harmonisation of definitions between 3 organisations
- Financial software of accounting offices is adapted so that dataset is automatically created from own financial administration.
SBR extension for agriculture

- Extend taxonomy with agricultural specific variables
  - EU-FADN farm return
- Co-operation between
  - LEI Wageningen UR (FADN data)
  - Accounting offices (exchange of data)
  - Banks (applications for loans)
  - Government (administrative burden)
- Adapt software of all parties
Advantages and risks for LEI

- Costs for accounting offices approach zero
  - Include more farms in FADN
  - Ask on ad hoc base for extra farms
- Timeliness/Quality
- EU standard?
- SBR data use for “full detail farms”?  

Risks:
- Harmonisation of definitions (including farm)
- Adaptation of SBR by all accounting offices
- Not all data available in electronic format at accounting offices
Innovation in FADN

- Pacioli (www.Pacioli.org)
  - 19th Workshop 2-5 October 2011 Estonia
  - +/- 40 participants from 20 countries
- EDI Circle/SBR
- Internetsite farmers: Use of face-it tool
- Remote Access
- Use of fiscal data: Couple with yearly census
- Intelligent Data Processing
- Sustainability
Conclusions linking databases

- Great potential for efficiency gains
- Next to successes, failures
- Needs large investment (Co-ordination)
- Less flexibility and greater dependence on others
- Co-operation leads to other advantages (knowledge sharing etc.)
Thank you for your attention