agroXML – a standardized language for data exchange in agriculture
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Actual situation

Data Exchange without agroXML
Aim of agroXML

Data Exchange with agroXML

- quality assurance
- authority
- machinery cooperative
- advisory service
- agriculture cooperative
- administration
- supplier

farmer
Range of Application of agroXML

- Aeration
- Feeding
- Heating
- Milking
- Biogas
- Staff
- Site
- Tractor
- Machine
- Harvester
- Operating supplies
- ISOBUS
- Animal Production
  (ISOagriNET)
- Dairy management
- Sow management
- Farm management information systems
- Field management
- Accounting system
- ISOBUS
  Arable Farming
- Administration
- InVeKoS
- Veterinary documentation
- Service Provider
- Machine costs
- Consultation
- Buyer
- Slaughtery
- Mill
- Supplier
- Fertilizer
- Seed
Technologies and components

- eXtensible Markup Language (XML Schema)
- XML Stylesheet Language Templates (XSLT) for Transformation in other XML-Varieties
- Core Component Technical Specification (CCTS, UN/CEFACT)
- Geography Markup Language (GML)

- agroXML is a trade mark of KTBL and available Open Source
- The componenets are the agroXML-Schema and the agroXML-Content-Lists
- The actual version 2.1 was released in March 2007, the next is scheduled for January 2008
The agroXML-Schema: Overview

- **general farm data**
  - address, farm number, contact person...

- **field data**
  - field number, size, geometry...

- **cultivation data**
  - crop, crop rotation, usage...

- **work process data**
  - machinery, people, timeframe, references to the fields...

- **fertilization**
  - fertilizer, amount...

- **pest control**
  - pesticide, amount...

- **soil tillage**
  - depth...

- **seeding**
  - seeds, row spacing...

- **harvest**
  - amount, moisture...

- **rating**
  - attributes, classification...

- **soil investigation**
  - samples, analysis...

- **irrigation**
  - water source, amount...

- **cleaning**
  - cleaning agent...

- **transport**
  - destination, amount...

- **other work**
  - description...
The agroXML-Schema: Detail Pest Control
The agroXML-Content-Lists: Example Types of Machines

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- <Maintainer>
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Content-Lists

Available

- Types of Machines, KTBL
- Types of Fertilizers, EU-Directive
- Pesticides, BVL (responsible government organization)
- Varieties, BSA (responsible government organization)
- Soil Types

In Preparation

- Feeding Stuff, BVL
- Veterinary Drugs, BVL
Data Exchange (schematic)

Data exchange:
- via CD
- per email (SMTP)
- WWW (HTTP)
State of Development

Applications

• Geodata service of KTBL, which lists the geodata of the „Bundesländer“ and makes them available in agroXML.

• Data exchange with clients of the ISIP online consultation service with agroXML.

• Mobile availability of agroXML-documents with the Farmbox of Helm-Software.

• Field documentation out of AO Agrar-Office for traceability.

• Job description e.g. for a contractor out of AGRO-NET of agrocom.
Documentation, e.g. Landdata Eurosoft

farm data
field data
seeding
fertilization
pest control
soil tillage
harvest
Exchange platform: Helm Farmbox

- Document management for agroXML documents
Placing of order

Farmer

- Spraying
- Am Teich (WW)
- Malibu 4,0 l/ha, Herold 0,6 kg/ha
- AG Müller
- 21.09.06

Contractor

- Pesticide
- Winter wheat
- MALIBU 4 l/ha
- HEROLED 600 g/ha
- Client: 2134 07
- CW 40

No normalized items (Data fields)

No normalized Content

⇒ Data transfer by hand!
Return of documentation

Farmer

Pesticide
Winter wheat
MALIBU 3.9 l/ha
HEROLD 583 g/ha
Client: 2134 07
23.09.06

Contractor

Pesticide
Winter wheat
MALIBU 3.9 l/ha
HEROLD 583 g/ha
Client: 2134 07
23.09.06

No normalized items (Data fields)
No normalized Content
→ Manual Entry into FMIS required!
Placing of order, e.g. agrocom, with agroXML

Farmer

Pest Control

Am Teich -Weizen

Malibu 4.0 l/ha,
Herold 0.6 kg/ha

AG Müller, 213407

21-09-2006

Contractor

Pest Control

Am Teich -Weizen

Malibu 4.0 l/ha,
Herold 0.6 kg/ha

AG Müller, 213407

21-09-2006

Internet

Items (Data fields)

Content

⇒ automatic transfer!
Return of documentation, e.g. agrocom, with agroXML.
Thank You!

More Information wanted?

www.agroXML.de