Bundesministerium für Ernährung und Landwirtschaft

BÖL
BUNDESPROGRAMM ÖKOLOGISCHER LANDBAU

Improving the organic control system and fraud prevention in supply chains

Development of a prototype for linking certification and product transaction data with geographical data in the software applications Check Organic and Abaco Farmer

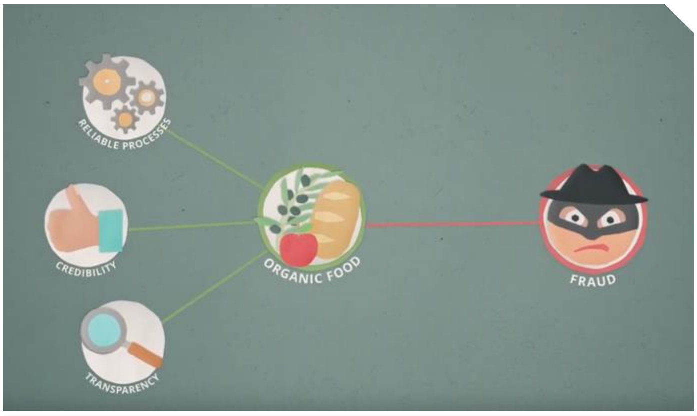

Fig. 1: Linking processes and data to prevent fraud

Project Profile

The aim of the DIGICHECK project was to develop a practicable concept for the improvement of control and fraud prevention for organic products using the example of the example of the grain chain. Significant gaps in the control and certification system were identified, evaluated and measures proposed to close them.
One important lever is the linking of certification and product transaction data with mass balancing. This ensures traceability transparency and effective fraud prevention.

Project period: 02/2021 – 04/2023

Recommendations from DIGICHECK

Digital data collection for organic control
A digital infrastructure for inspection and certification has many advantages: In addition to streamlining bureaucracy, it improves the exchange of data in the inspection and certification system and thus makes a contribution to fraud prevention through greater transparency in the value chains. Existing digital data can be used for this purpose.

Implementation of mass balances along product chains
Mass balances of product flows along supply chains are a simple and reliable tool for preventing and and combating fraud. This requires digital data of field area, crop and quantity data (yield) as well as transaction data of the traded products. Complex laboratory analytics or batch traceability is not required.

Introduction of a digital system for control data and mass balancing
The mandatory introduction of a digital system would help to prevent fraud with organic products and improve market transparency. The voluntary introduction of mass balancing by control bodies/certifiers and companies in the supply chain offers additional extensive advantages.

"The integration of digitized data into Check Organic using a GIS saves us approx. 25% of the work involved in administration and control. The mass balancing is simple and comprehensible."
Ronald Wesner, Kiwa BCS Öko-Garantie

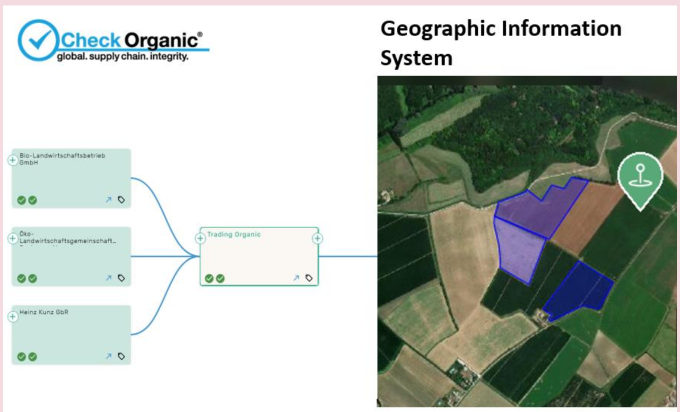

Fig. 2: Integration of Check Organic (supply chain) with ABACO Farmer (GIS)

Economy

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www.bundesprogramm.de / www.oekolandbau.de

Background

A growing number of consumers are prepared to pay a higher price for organic products. The price difference brings with it the risk of fraud. This creates an obligation for all parties involved to ensure the integrity of organic products.
One of the main weaknesses of the organic control system is the lack of digital recording of the relevant data (location and size of areas, crop, yield, quantities handled), which makes it impossible to link product transactions from the field along the entire product chain.
A distinction is made between the traceability of certification and product transaction data. The digital availability and linking of data play a decisive role in this and in preventing fraud.

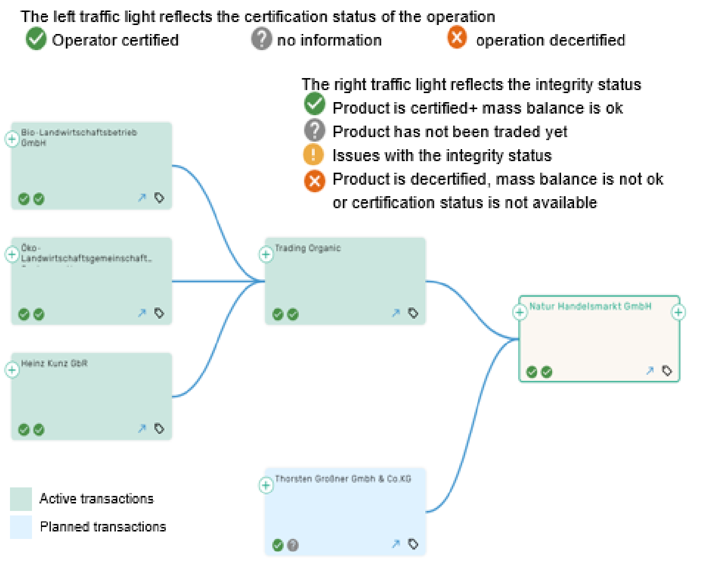

Fig. 3: Traffic lights signal certification and product availability

Results

The DIGICHECK Project

DIGICHECK was implemented in three work packages:
- Analysis of the existing control and certification system,
- Exemplary implementation of a mass balance system for grain with the help of a GIS-enhanced approach from Check Organic, with the development of a prototype,
- Estimation of the benefits and costs of this application.

Summarizing results

- The collection of inspection and certification data via the operational .zip (shape files from IACS) can already be implemented by inspection bodies if a geographical information system is available to display the areas and information.
- The prototype of the integration of a geographical information system (GIS) with Check Organic has been developed and will be programmed.
- In Check Organic, mass balances can also be mapped along product chains (national and international) and for various standards/regulations, taking into account data protection (log-in, roles and rights).

Additional recommendations

- The mandatory introduction of mass balancing (also along supply chains) is only possible through legal regulation at EU, federal or state level. DIGICHECK proposes solutions for this;
- Clarification of the legal gray area of personal and non-personal data;
- Open and standardized interfaces from and to state application and reporting systems (IACS, HIT, TRACES, etc.);
- Systematic recording of organic farms in the special harvest survey (BEE.)

Fig. 4: International fraud cases – selected examples

Additional information about DIGICHECK can be found at (in German): www.orgprints.org/id/eprint/39230

More Information at:
https://www.organic-services.com;
https://www.check-organic.com

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