Improving organic food integrity and quality management by better understanding the root causes of residue findings – The case of Ukraine

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Intro

• Rumors in Europe about fraud and contaminated products from major sourcing countries like Ukraine

• After implementation of EU import guidelines for Ukraine with increased number of samplings, also the actual number of non-compliances increased

• But what are the root causes for non-compliances – mostly fraudulent activities as assumed by many authorities?
Causes for non-compliances

- Fraud as an intentional act
- Wrong labelling
- Comingling of organic lots with conventional lots
- Contamination with unauthorized substances
- Persistent chemicals in the soil, which lead to a contamination of the crop
FiBL study to identify the real root causes (case Ukraine)

- Report of the EU commission about OFIS cases in 2016
- OFIS notified residue cases, with Ukrainian exporters involved
- Survey among CBs (covering 80% of the certified area in UA)
Typical organic supply chains from Ukraine

- High risk of contamination caused on complex chains
Overview OFIS cases 2016 (total)

Number of irregularity cases by notified third country in 2016

- China: 59
- Turkey: 44
- Egypt: 42
- Ukraine: 26
- India: 25
- Peru: 16
- Dom. Rep./Mexico: 14
- Sri Lanka: 12
- Russia/Equador: 11

30% of OFIS cases from non EU countries in 2016

Source: EU COM
Likely root causes of OFIS cases 2016 (Ukraine)

Likely root causes of Ukrainian OFIS cases in 2016

- Contamination in storage or during transport: 14 cases
- Comingling with conventional products in production, storage or transport: 4 cases
- Spray drift from neighbouring conventional farms: 3 cases
- Other reason, namely: Suspicious certificate: 2 cases
- Application of prohibited substances by certified operators during production, storage or transport: 2 cases
- Use of seeds, treated with unauthorised substances
- Spray drift from aerial sprayings
- Persistent (heritage) chemicals in the soil, e.g. DDT

Source: FiBL survey among CBs operating in Ukraine 2017
Overview OFIS cases 2016 (Ukraine)

Detected substances in OFIS cases Ukraine 2016

- Chlorpyrifos
- Primiphos-methyl
- Propiconazole
- Cyproconazole
- Glyphosate
- Imidacloprid
- Chlormequat
- Bifenthrin
- Mepiquat
- Cypermethrin
- Diazinon
- Malathion
- Pymetrozine

Source: EU COM
Products/lots become suspicious, when residues are detected during samplings of CBs

Share of samples taken in Ukraine with detected residues (2016)

- CB_total: 19%
- CB4: 15%
- CB3: 4%
- CB2: 21%
- CB1: 75%

Source: FiBL survey among CBs operating in Ukraine 2017
Operators become even more suspicious, when residues are detected by leaf samples during the production season

Share of leaf samples taken in Ukraine on which residues were detected (2016)

- CB_total: 34%
- CB4: 24%
- CB3: 0%
- CB2: 55%
- CB1: 86%

Source: FiBL survey among CBs operating in Ukraine 2017
In how many cases have the crops with detected substances been downgraded to non-organic by the CB?

Share of downgrades of crops/plots upon residue detection in samplings (2016)

- CB4: 13%
- CB3: 50%
- CB2: 73%
- CB1: 58%

Source: FiBL survey among CBs operating in Ukraine 2017
Mitigating the risks during post harvesting, storing and transportation of organic products
Main components...

Management system

Infrastructure

Operational personnel
Risk factors...

- Local transport conditions
- Local storage conditions
- Intermediate storages
- Not proper cleaning of equipment
Risk factors...

- Equipment
Risk factors...

- Terminals,
- Barge, water transport
Risk factors...

- Operational personnel
Mitigating the risks on operator level

To use only safeguarded infrastructure
- new storages
- storages with known history
- use equipment only for organic products
- use only own transport or with known history

To set up quality system to control all process
- evaluation criteria for quality check storage and transport conditions
- traceability system
- video supervision

To educate operational personnel
- All personnel not only management should get to know organic rules
Conclusion irregularity cases

- OFIS cases indicate, irregularities often consequence of not adequate management of storage or during transport
- Sampling of CBs during production period and in prior to the export indicate, that there are likely problems with treatments of unauthorized substances too before trading the products.
- Important – timing, quantity and quality of taking samplings by CBs
- Broader study needed to identify sources of contaminations
- Important, how CBs respond / investigate the cases of irregularities and which measures are derived as “lesson learnt”

Thank you for your attention!