



ABIM Congress 2013

Biocontrol from a Retailer's Perspective

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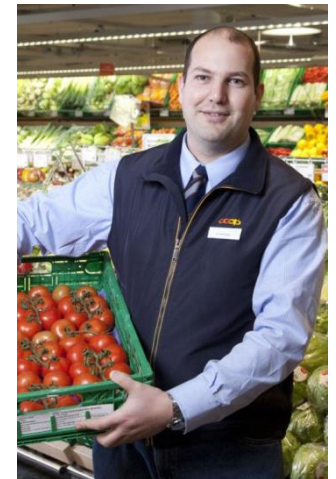
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1. Coop in a Nutshell

- Coop is one of the two most important retailers in Switzerland
- Retail turnover in 2012: CHF 18,5 billions (**EUR 15 billions**)
- Turnover with organic products in 2012 : CHF 925 millions (**EUR 750 millions**)
- Total number of shops: 2'000
- Total number of employees: 75'000



2. Why is the Topic Biocontrol Important for Coop?

- Consumers demand products with low pesticide residues and are concerned about the impact of pesticides on workers health and safety and the environment
- Sustainability is part of Coop's business strategy. In 2011 Coop was rated the most sustainable retailer in the world by the independent agency "oekom research"
- Coop conducted a sustainability screening in 2012. Among others following challenges for the future were identified:

Working conditions



Biodiversity



Water



Soil fertility



- **The approach of Coop to address these challenges:**
 - Further increase its organic product line
 - Promote biocontrol methods in conventional production

3. Overview of Coop Projects In the Area of Biocontrol

1. Beneficiaries for stock protection (2006-2008)

Project Partners: FiBL, Andermatt Biocontrol

Goals: Find biocontrol alternatives to insecticides, in order to cope with plagues in conventional storage



2. Citrus Greening in Mexico and Cuba (2011-2014)

Project Partner: FiBL

Goals: Development of biocontrol solutions to manage the bacterial disease "Citrus Greening", in order to secure supply of organic orange juice



3. Organic agriculture without copper (2011-2014)

Project Partner: FiBL

Goals: Development of highly effective biocontrol solutions as alternatives to copper. In particular, to treat downy mildew in organic wine production.



4. Case Study: Fair Trade Roses from Kenya

Coop's Approach to Foster Biocontrol

- Coop assessed the production methods and results of pesticides residue analysis for fruit, vegetables and cut flowers
- Fair Trade roses from Kenya were identified as a suitable product to start a sustainability project and foster the implementation of IPM and biocontrol
- **Why Fair Trade roses?**
 - Intensive production methods using a lot of pesticide inputs
 - Negative impact of high pesticide use on worker's health and safety and the environment
 - Greenhouse production
 - Very important product for Coop



Description of Sustainability Project

Case Study: Fair Trade Roses from Kenya

- **Goals:**
 - Pesticide reduction in Fair Trade roses production
 - Foster the implementation of IPM and biocontrol
- **Project participants:** Coop, Rewe Group
- **Flower farms:** 20
- **Main pests and diseases:** Red spider mite, thrips, whiteflies, mealy bugs, powdery mildew, downy mildew, botrytis
- **External partners:** MPS, Dudutech, Real IPM, Koppert
- **Scope:** Kenya
- **Duration:** 2012 – 2014



Project Set-up

Case Study: Fair Trade Roses from Kenya

- 10 out of 20 flower farms started a pilot project in March 2013 to implement IPM and biocontrol methods together with Dudutech, Real IPM, Koppert
- Every participating flower farm dedicated
 - 1 trial greenhouse (~1ha) where IPM and biocontrol methods are applied
 - 1 conventional greenhouse (~1ha), where current crop protection methods are applied
- In the trial and the conventional greenhouse the same varieties are grown

Trial greenhouse
(~1ha)
IPM and biocontrol
methods

Conventional
greenhouse
(~1ha)
Current crop
protection methods

Responsibilities within the Project

Case Study: Fair Trade Roses from Kenya

- **Dudutech, Real IPM and Koppert:**
 - Provide IPM and biocontrol solutions to the flower farms
 - Assist the flower farms in implementing IPM and biocontrol methods in trial greenhouses
- **Flower farms:**
 - Implement IPM and biocontrol methods
 - Register the applications and quantities of pesticides sprayed for trial greenhouses and conventional greenhouses in the online database of MPS
 - Register data such as quality, yields, production costs and incidents
- **Coop and Rewe Group:**
 - Co-finance the field visits of project partners
 - Fund pesticide residue analysis every two months on trial greenhouses and conventional greenhouses

Comparison of Trial and Conventional Greenhouse

Case Study: Fair Trade Roses from Kenya

Trial greenhouse



Conventional greenhouse



Key Performance Indicators (KPI's)

Case Study: Fair Trade Roses from Kenya

To measure the progress of the pilot project with IPM and biocontrol methods following Key Performance Indicators (KPI's) have been defined:

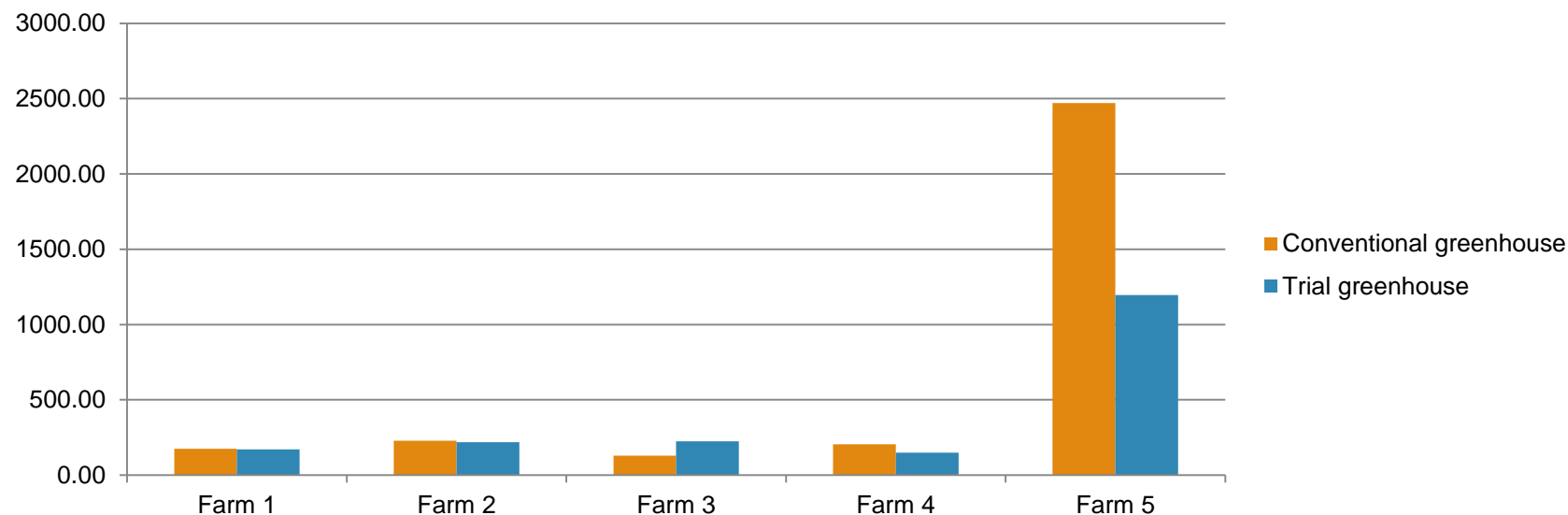
- **KPI 1: Pesticide inputs (in kg/ha)** for trial and conventional greenhouses
- **KPI 2: Results of pesticide analysis** taken from trial and conventional greenhouses
- **KPI 3: Quality and yields** for rose production in trial and conventional greenhouses
- **KPI 4: Costs** of IPM and biocontrol methods in comparison to current crop protection methods
- **KPI 5: Register of sprayings** on trial and conventional greenhouses
- **KPI 6: Register of incidents** on trial and conventional greenhouses

Preliminary Results

Case Study: Fair Trade Roses from Kenya

- The KPI's 1 for the period March-August 2013 (5 months) was partly analysed

KPI 1: Pesticide inputs (in kg/ha) for trial and conventional greenhouses



- No clear trend yet to show a reduction in quantities of pesticides applied on trial greenhouses compared to conventional greenhouses

Next steps

Case Study: Fair Trade Roses from Kenya

- A project duration of 5 months is considered as too short to analyse and interpret all KPI's reliably. An complete analysis of all KPI's will be done end of February 2014
- Based on an assessment of the KPI's, feedback from Dudutech, Real IPM, Koppert and the flower farms, successful biocontrol methods will be identified
- Starting March 2014 successful biocontrol methods shall be implemented in further greenhouses of involved flower farms

5. Challenges to Foster Biocontrol as a Retailer

- **Difficult to convince conventional farmers to use IPM and biocontrol methods:**
 - Farmers fear the risk of losing their crop
 - Also they argue that costs of biocontrol methods are higher
- **To choose the right framework:**
 - Stricter requirements regarding residue levels (e.g. only residue levels < 50% of MRL accepted)
 - Limiting the max. number of different residues on the products (e.g. max. 6)
 - Working with positive lists for pesticides
 - Getting involved directly with farmers and start pilot projects to foster biocontrol
- **Outdoor crops**
 - For outdoor crops biocontrol is not yet as accepted among conventional farmers as it is for greenhouse crops

6. Future Working Areas of Coop

To foster IPM and biocontrol

Coop has identified following future working areas to foster the implementation of IPM and biocontrol:

- **Grapes** (Focus Italy)



- **Salads** (Focus France)



- **Strawberries** (Focus Spain)



7. Expectations from Coop Towards the Biocontrol Industry

- Coop would like the biocontrol industry to address retailers more proactively
- In particular Coop would like to be informed about:
 - New biocontrol methods and approaches
 - Planned pilot projects with biocontrol
 - Impact studies regarding the implementation of biocontrol
- Open exchange with the biocontrol industry about frameworks a retailer can implement to foster biocontrol within its supply-chains
- Coop would like the biocontrol industry to develop new methods to further improve organic production (e.g. alternatives to copper)

Thank you for your attention!

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