



Highway to the moon

Data collection for economic
and environmental analysis

Description of Work

- Material inputs + prices
- Equipment inputs + prices
- Labour inputs + prices
- Physical yields
- Quality classes + prices



Safe us from awful jobs

- Focus on:
 - material inputs
 - physical yields
- Solution for:
 - equipment use + prices
 - labour use + prices
 - material prices
 - product prices



Conceptual framework

BIOLOGICAL CONTROL operations ¹⁾			Material inputs				Equipment use				Labour use				
Date	Operation		Material name / type	Quantity	Unit	Price/un	Equipment name / type	Hours	Fuel/hr	Costs/hr	Labour name / type	category	Hours	Costs/hr	
nov															
xxx	Spray BCA's		BCA	..	xx										
xxx	Install pheromone traps		Pheromone traps	..	xx										
xxx	Introduce natural enemies		Natural enemies	..	xx										
xxx	Sowing flower strips		Flower seed mixture	..	xx										
xxx	..														
okt															
¹⁾ including conservation biocontrol			materials				equipment				labour				
MECHANICAL CONTROL operations ²⁾			Material inputs				Equipment use				Labour use				
Date	Operation		Material name / type	Quantity	Unit	Price/un	Equipment name / type	Hours	Fuel/hr	Costs/hr	Labour name / type	category	Hours	Costs/hr	
nov															
xxx	Leaf shredding		not applicable	0	0										
xxx	Install enclosure netting		Enclosure nets										
xxx	..														
okt															
²⁾ including enclosure netting															
CHEMICAL CONTROL operations			Material inputs				Equipment use				Labour use				
Date	Operation	buff zone	Material name / type	Quantity	Unit	Price/un	Equipment name / type	driftred	Hours	Fuel/hr	Costs/hr	Labour name / type	category	Hours	Costs/hr
nov															
xxx	Spray pesticide	..	Fungicide A	..	xx		Orchard sprayer	..				Family - skilled			
xxx	Spray pesticide	..	Fungicide B	..	xx		Orchard sprayer	..				Family - skilled			
xxx	Spray pesticide	..	Insecticide X	..	xx		Orchard sprayer	..				Family - skilled			
xxx	Spray pesticide	..	Fungicide C	..	xx		Orchard sprayer	..				Family - skilled			
xxx	..														
okt															
			physical yield												
FRUIT SORTING operations			PHYSICAL YIELD + product quality				Equipment use				Labour use				
Date	Operation		Product name / type	Quantity	Unit	Price/un	Equipment name / type	Hours	Fuel/hr	Costs/hr	Labour name / type	category	Hours	Costs/hr	
xxx	Sorting Class I*		class I* (export, low residue)	..	ton		Sorting machine				Family - skilled				
xxx	Sorting Class I		class I (export quality)	..	ton		Sorting machine				Family - skilled				
xxx	Sorting Class II		class II (medium quality)	..	ton		Sorting machine				Family - skilled				
xxx	Sorting Class III		class III (industry quality)	..	ton		Sorting machine				Family - skilled				
xxx				

Defining operations

Defining operations	Equipment 1	Equipment 2	Labour type	Hours/unit	Unit
Leaf shredding	tractor 40 kW	leaf shredder	family - unskilled	..	ha
Leaf removal	tractor 40 kW	orchard cleaner	family - skilled	..	ha
Seedbed preparation	tractor 60 kW	rotavator	family - skilled	..	ha
Sowing flower strips	tractor 40 KW	sowing machine	hired - skilled	..	ha
Install enclosure nets	tractor 40 kW	working platform	hired - unskilled	..	ha
Install pheromone traps	0	0	hired - unskilled	..	ha
Pest/disease monitoring	DSS-system	0	IPM-specialist	..	10 ha
Spray BCA	tractor	orchard sprayer	family - skilled	..	ha
Spray pesticide	tractor	orchard sprayer	family - skilled	..	ha
Introduce natural enemies	0	0	hired - unskilled	..	ha
Sorting Class 1 ⁺	sorting machine	0	family - skilled	..	ton
Sorting Class 1	sorting machine	0	family - skilled	..	ton
Sorting Class 2	sorting machine	0	family - skilled	..	ton
Sorting Class 3	sorting machine	0	family - skilled	..	ton

Sufficient to describe your WP5 experiments? Supplements welcome!

Parameters equipment

Equipment applied	Purchase value (€/unit)	Depreciation (%/year)	Interest rate (%/year)	Maintenance (%/year)	Diesel use (liter/hour)
Orchard tractor 40 kW
Orchard tractor 60 kW
Leaf shredder	not appl
Orchard cleaner	not appl
Rotavator	not appl
Sowing machine	not appl
Exclosure nets	not appl
Working platform	not appl
Orchard sprayer	not appl
Tunnel sprayer	not appl
DSS-computer	not appl
Sorting machine	not appl

Comments encouraged!

Parameters labour



Labour categories	Wage (€/hour)
Family - skilled	..
Family - unskilled	..
Hired - skilled	..
Hired - unskilled	..
IPM-specialist	..

Comments encouraged!

50% already completed

BIOLOGICAL CONTROL operations ¹⁾						Equipment use				Labour use				
Date	Operation		Material name / type	Quantity	Unit	Price/unit	Equipment name / type	Hours	Fuel/hr	Costs/hr	Labour name / type	category	Hours	Costs/hr
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xxx	Spray BCA's		BCA	..	xx									
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MECHANICAL CONTROL operations ²⁾						Equipment use				Labour use				
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nov							(for example)							
xxx	Leaf shredding		not applicable	0	0		Leaf shredder							
xxx	Install enclosure netting		Enclosure nets									
xxx	..													
okt														
²⁾ including enclosure netting						<div style="border: 2px solid black; padding: 10px; display: inline-block;"> <p style="margin: 0;">Completed Tasks</p> </div>								
CHEMICAL CONTROL operations			Material inputs							Equipment use				Labour use
Date	Operation	buff zone	Material name / type	Quantity	Unit	Price/unit	Equipment name / type	drifted				category	Hours	Costs/hr
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xxx	Spray pesticide	..	Fungicide B	..	xx		Orchard sprayer	..						
xxx	Spray pesticide	..	Insecticide X	..	xx		Orchard sprayer	..						
xxx	Spray pesticide	..	Fungicide C	..	xx		Orchard sprayer	..						
xxx	..													
okt														
FRUIT SORTING operations			PHYSICAL YIELD + product quality			Equipment use				Labour use				
Date	Operation		Product name / type	Quantity	Unit	Price/unit	Equipment name / type	Hours	Fuel/hr	Costs/hr	Labour name / type	category	Hours	Costs/hr
nov							(for example)				(for example)			
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xxx	Sorting Class II		class II (medium quality)	..	ton		Sorting machine				Family - skilled			
xxx	Sorting Class III		class III (industry quality)	..	ton		Sorting machine				Family - skilled			
xxx			

Focus on core business

BIOLOGICAL CONTROL operations ¹⁾		Material inputs				Equipment use				Labour use				
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xxx	Spray pesticide	Fungicide B	..	xx		Orchard sprayer	..				Family - skilled			
xxx	Spray pesticide	Insecticide X	..	xx		Orchard sprayer	..				Family - skilled			
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..						..								

core™

Classes of operations

BIOLOGICAL CONTROL operations ¹⁾			Material inputs			
Date	Operation		Material name / type	Quantity	Unit	Price/unit
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..						

Biological control,
including conservation biocontrol

Mechanical control,
including enclosure netting

Chemical control

Fruit sorting

Collection of prices

Pesticides crop researchers

BCAs crop researchers

Equipment crop researchers +

Labour crop researchers +

Outputs IPTS and LEI



New bars in SYNOPSIS-WEB

http://sf.jki.bund.de/synops-web/secured/index.jsf

JKI
Julius Kühn-Institut
Bundesforschungsanstalt für Kulturpflanzen

SYNOPSIS-WEB
version 0.1

Impressum

logged in as pure_wp5

Selected site scenario: **none**
Selected application scenario: **none**

- Selection of the site scenario
- Input of the application scenario
- Export selected input data
- Summary of calculated risk scores

- Defining orchard operations
- Entry of equipment parameters
- Entry of labour parameters
- Entry of biological control operations
- Entry of mechanical control operations
- Entry of fruit sorting operations
- Entry of fruit sorting operations

16:08 21-11-2013

Speakers
Media Center

Trying SYNOPSIS-WEB

- <http://sf.jki.bund.de/synops-web>
- user: pure_wp5
- pwd: pure_wp5

- Selection of the site scenario
- Input of the application scenario



Actions for Riva del Garda

- Jan + Marianne (economics)
 - ..
 - ..
 - ..
- Aude + Gabriele (DEXiPM)
 - ..
 - ..
 - ..
- Jörn + Martina (SYNOPS-WEB)
 - ..
 - ..
 - ..
- Aude + Herman + Imre + Vittorio
 - ..
 - ..
 - ..



Highway to the moon



See you in Riva del Garda

