

Workshop  
**Mediterranean products in a global market**  
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# **The market for organic products: issues and prospects**



**Alessandro Corsi**  
Dept. of Economics, University of Torino

## Goals and outline

### Goal:

- To present facts and issues concerning organic products on the production side
- To discuss some related policy issues

### Outline:

- Some facts about organic production in the EU
- Characteristics of organic farms
- Determinants of the choice of going organic
- Policy issues

## Organic farming definitions

-“a form of agriculture that excludes the use of synthetic fertilizers and pesticides, plant growth regulators, livestock feed additives, and genetically modified organisms. As far as possible, organic farmers rely on crop rotation, green manure, compost, biological pest control, and mechanical cultivation to maintain soil productivity and control pests” (Wikipedia)

- “Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.” (IFOAM)

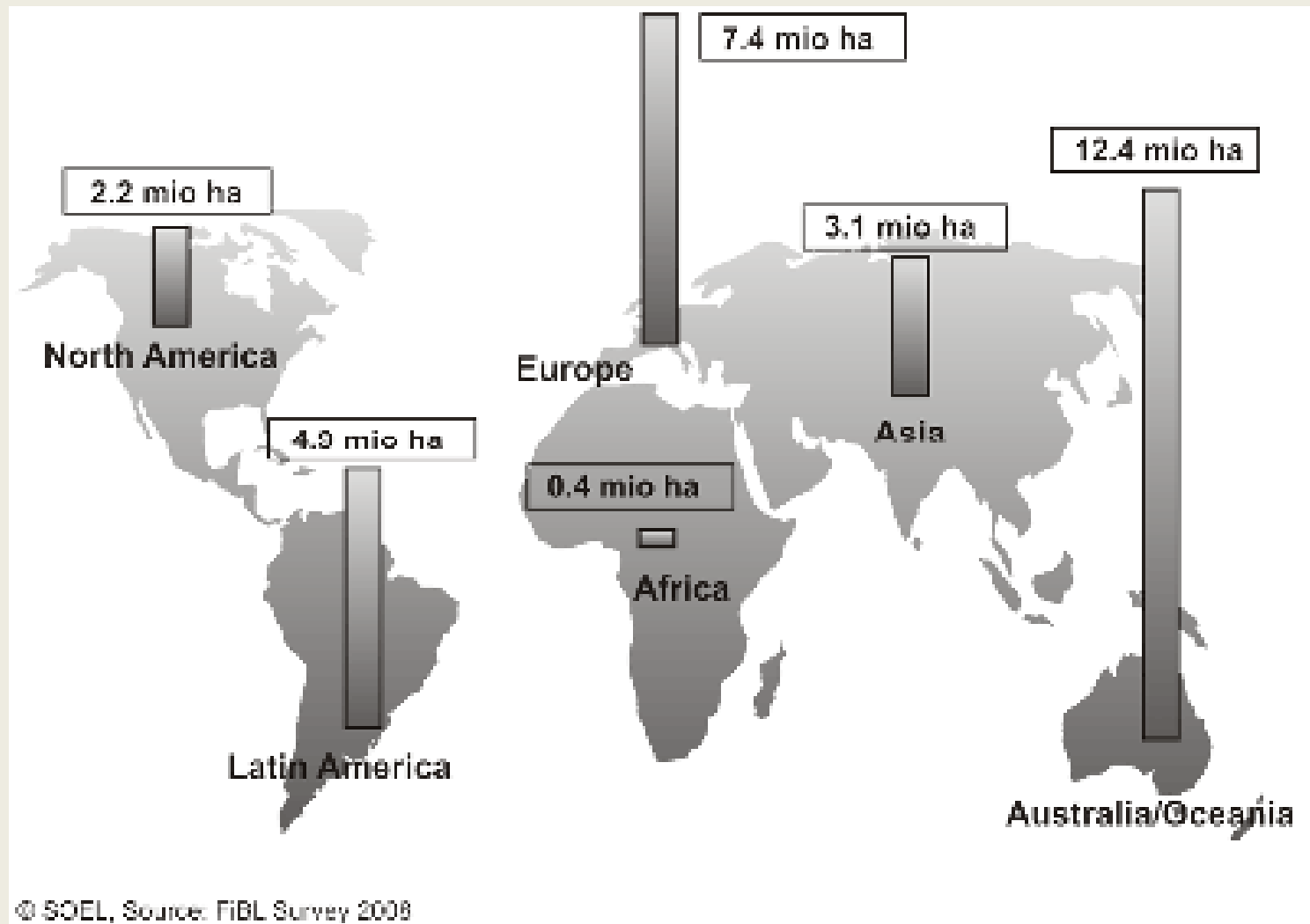
# Organic farming definitions

- “Organic farming differs from other farming systems in a number of ways. It favours renewable resources and recycling, returning to the soil the nutrients found in waste products. Where livestock is concerned, meat and poultry production is regulated with particular concern for animal welfare and by using natural foodstuffs. Organic farming respects the environment's own systems for controlling pests and disease in raising crops and livestock and avoids the use of synthetic pesticides, herbicides, chemical fertilisers, growth hormones, antibiotics or gene manipulation. Instead, organic farmers use a range of techniques that help sustain ecosystems and reduce pollution.” (EU Commission website)

- “organic agriculture is an ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony” (NOSB, USDA 1995)

## Some facts about organic agriculture

### The organic agriculture surface area in the World (2006)



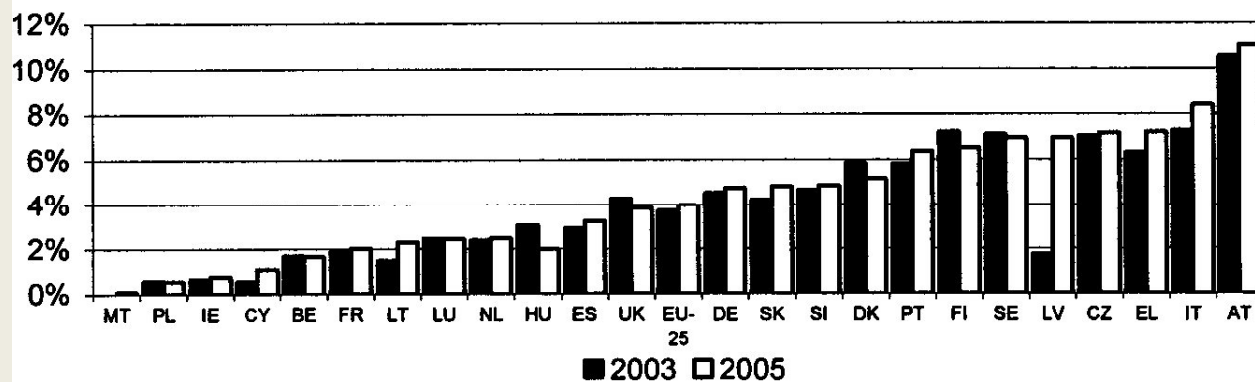
## Some facts about organic agriculture

- almost 30.4 mio ha, 0.65% of agricultural land (2006)
- 700,000 farms
- countries with largest organic areas:
  - Australia (12.3 mio ha)
  - China (2.3 mio ha)
  - Argentina (2.2 mio ha)
  - USA (1.6 mio ha)
- highest proportion of organic area in Europe
- permanent grassland about two thirds, cropland one third
  
- total sales of organic products evaluated at 38.6 billion dollars in 2006 (18 billion in 2000)
- North America and Europe cover 97% of consumer demand

# Organic agriculture in Europe

- organic farming is still a minor share of agriculture:
- in 2005, in the EU-25, 6.1 mio ha (4% of the UAA, 3.7% in 2003)
- largest share of organic over total UAA in Austria and Italy

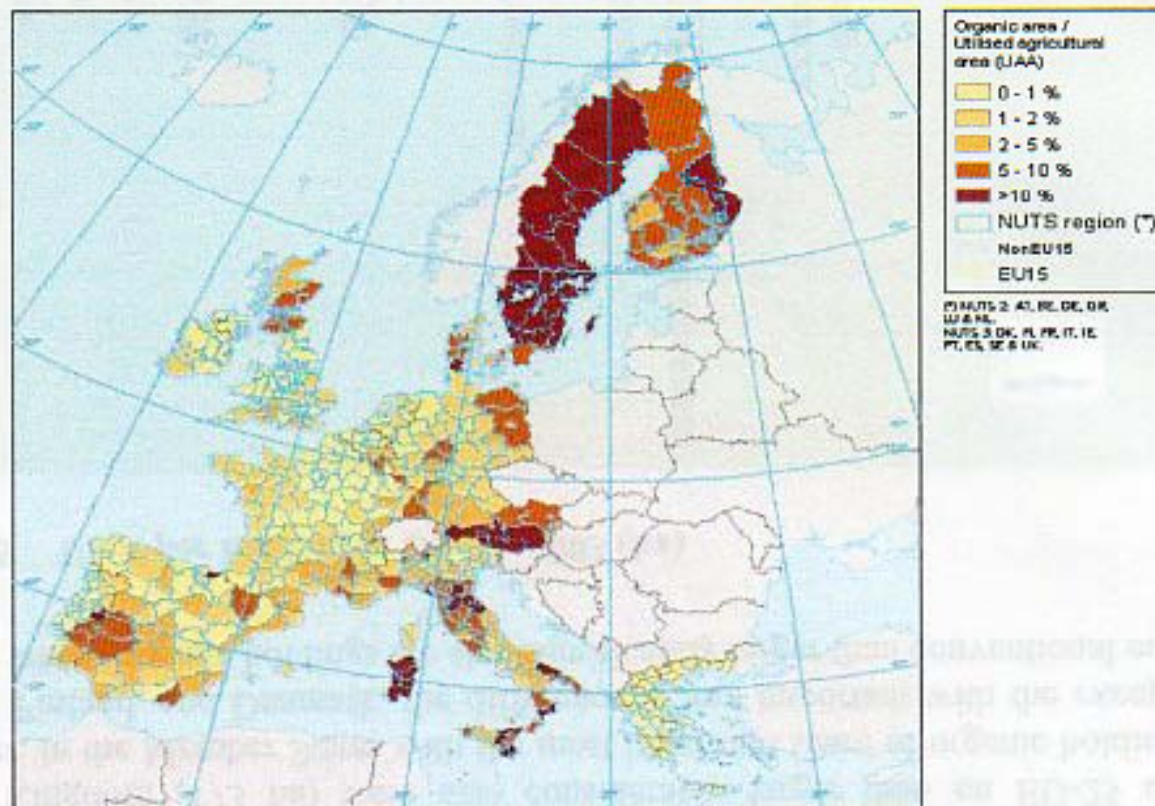
**Figure 1: Organic area against total Utilised Agricultural Area in %, 2003/2005**



Sources: Eurostat Organic Farming Statistics;  
Farm Structure Surveys

## Share of organic area even more different at a regional level

**Figure 4** Share of organic area in UAA in EU-15 at regional level, 2000 (%)

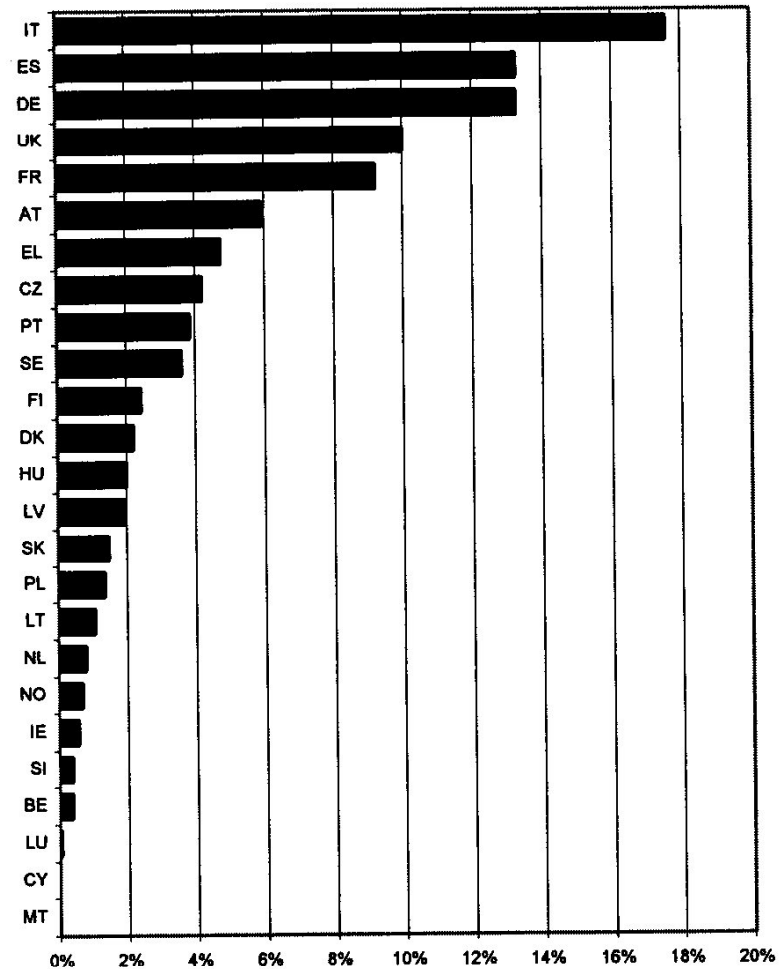


Source: European Commission Organic farming: facts and figures, 2005

Most important shares out of total EU organic area are :

- Italy
- Spain
- Germany
- UK

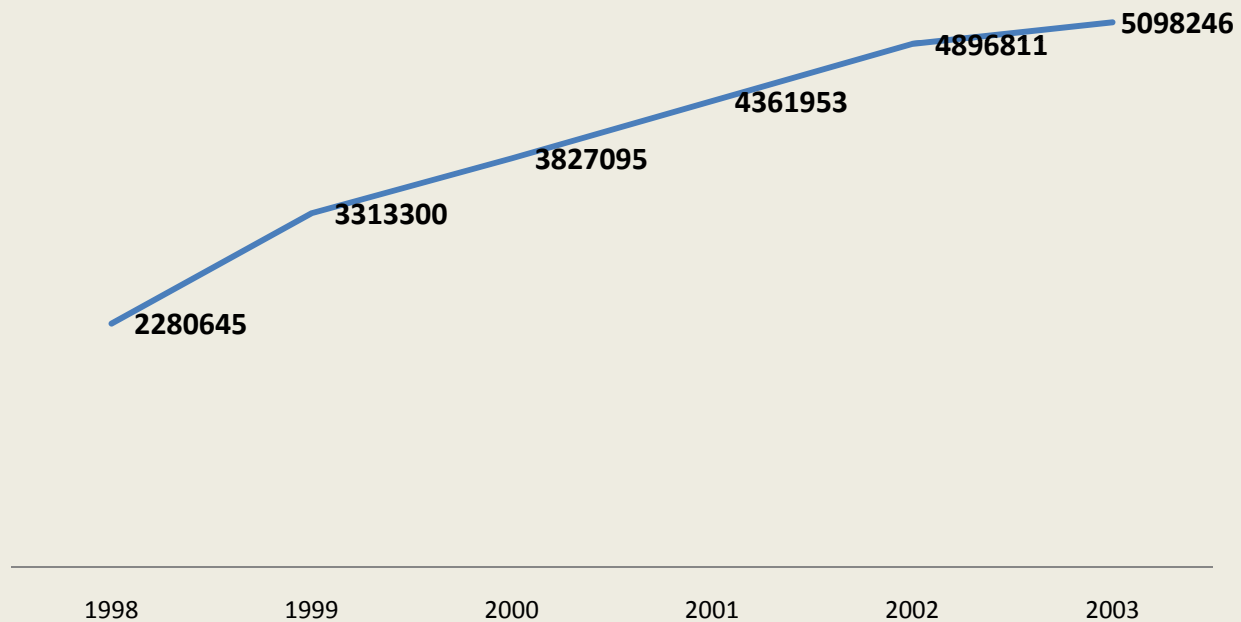
**Figure 2: Share of total organic area by country (%) out of total EU-25 organic area, 2005**



*NB: LU, PL 2004*

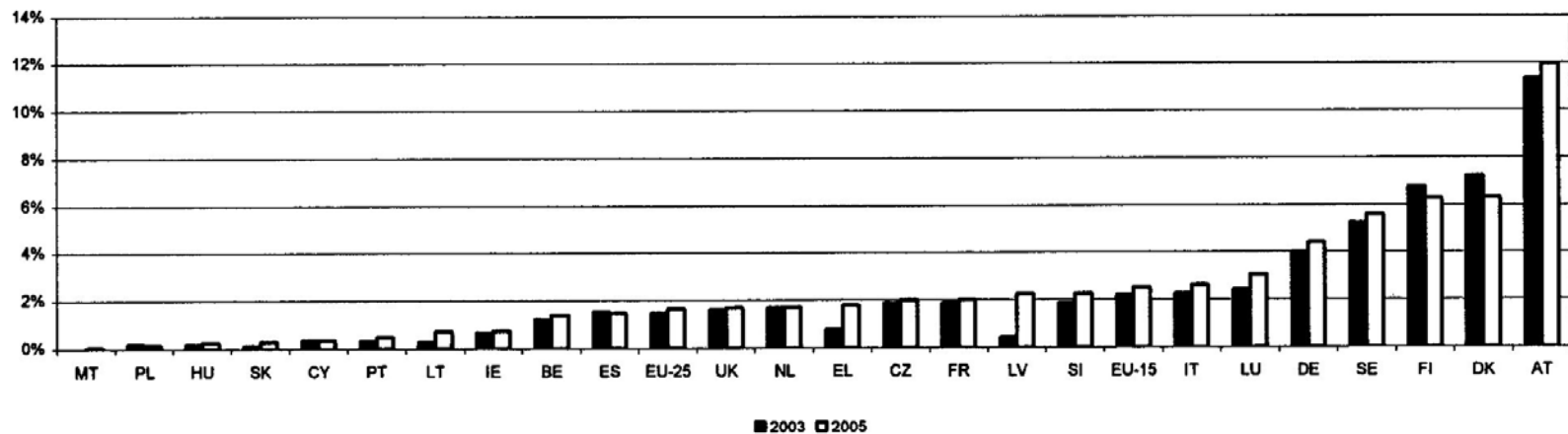
# An increasing trend in total organic area in the EU

Organic crop area EU-15 (ha; Eurostat)



- 158,000 producers in 2005 (EU-25)
- 1.6% of agricultural holdings
- Austria, Denmark, Finland with the largest shares

**Figure 3: Organic producers out of total agricultural holdings in %, 2003/2005**



Sources: Eurostat Organic Farming Statistics  
Farm Structure Surveys

NB: Organic data 2003: CY, PL 2004; Organic data 2005: CY, HU, PL 2004

Turnover of organic products on the European market evaluated at 13-14 billion Euro in 2005 (+10% relative to 2004)

- most important markets:

- Germany (3.9 bill.)
- Italy (2.4 bill.)
- UK (2.3 bill.)
- France (2.2 bill.)

- per capita expenditure different across countries

- highest in:

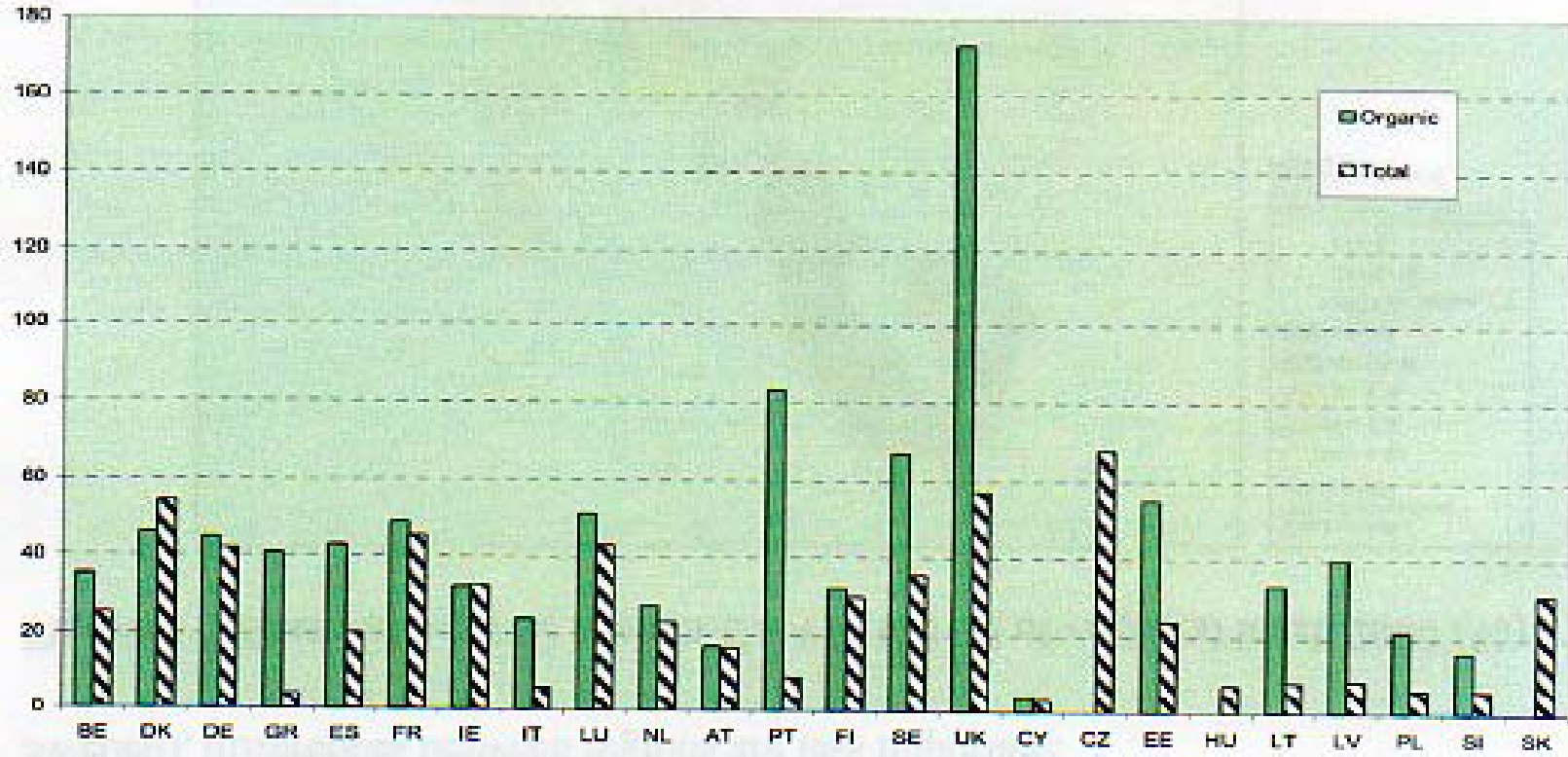
- Denmark (€ 51/year)
- Sweden (€ 47/year)
- Germany (€ 42/year)
- Finland (€ 38/year)

Source: Fibi-IFOAM

# Characteristics of organic agriculture

-average size larger than conventional farms

**Figure 5 UAA per holding in EU-25, 2003 (ha)**

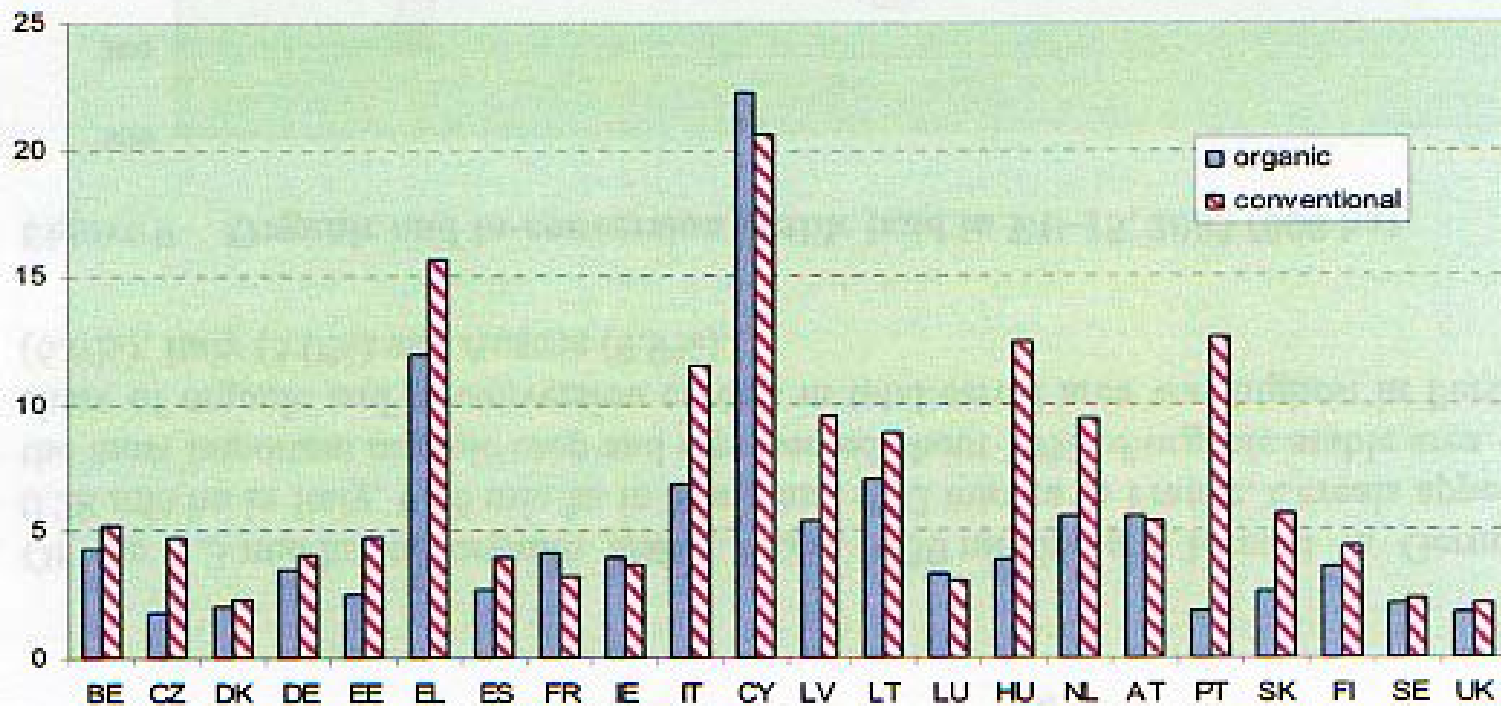


Source: European Commission Organic farming: facts and figures, 2005

# Characteristics of organic agriculture

-labour employed per area lower than conventional agriculture in most EU countries

**Figure 7** Employment of labour per area in EU-25, 2003 (AWU/100ha)

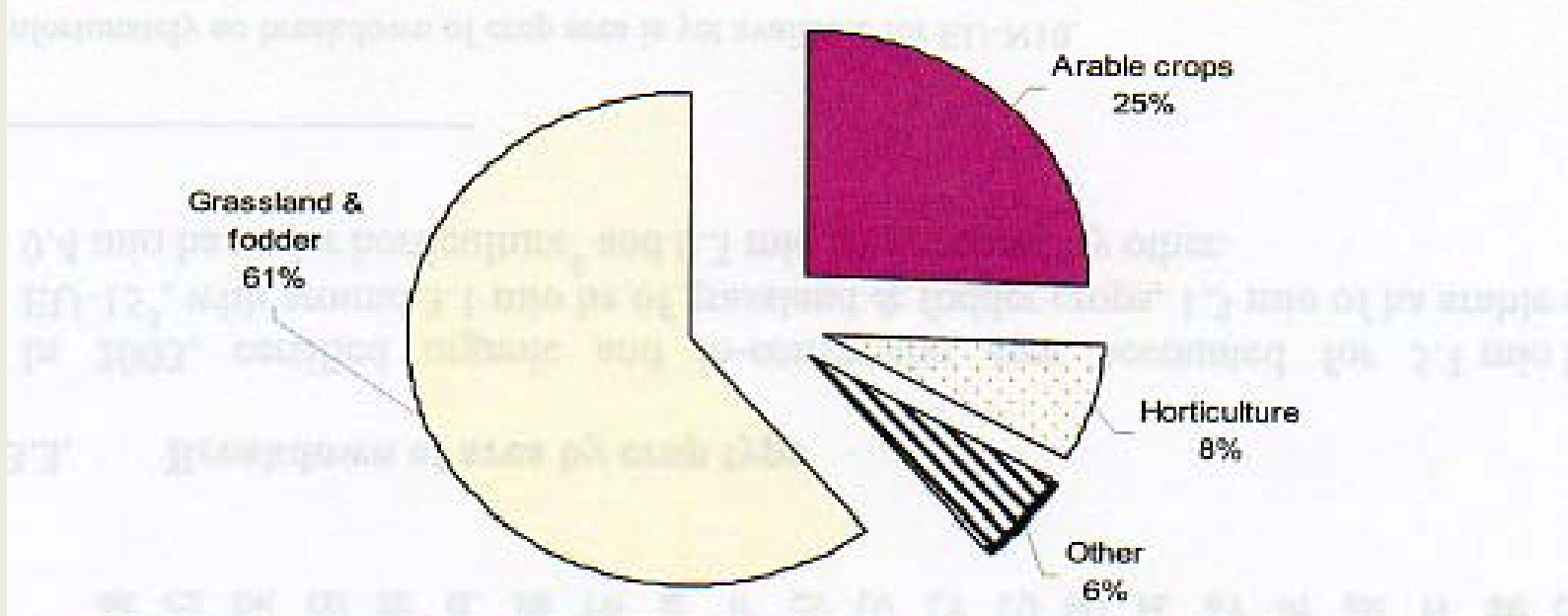


Source: European Commission Organic farming: facts and figures, 2005

# Characteristics of organic agriculture

- large average size and low labour input mostly depend on crop types
- grassland and fodder account for a large part of organic area

**Figure 8 Breakdown of organic area by crop type in EU-15, 2003 (%)**



Source: European Commission Organic farming: facts and figures, 2005

## Characteristics of organic agriculture

- few general data on organic farm characteristics
- specific investigations required
- a total survey of organic farms in Piedmont 2006
- information included general farm characteristics, prices and marketing channels, intentions and opinions

## Characteristics of organic agriculture

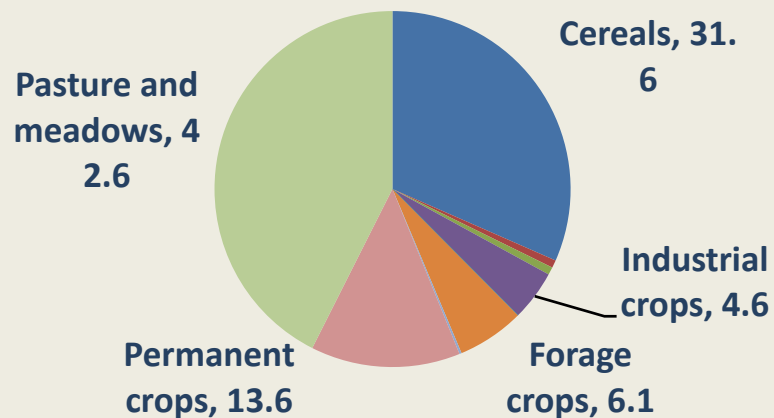
- organic farms 1.4% of total regional number
- total UAA of organic farms 3.4% of total regional UAA
- much processing on the farm (31%) and other activities (17%)
- different allocation of land compared to overall region

# Allocation of land

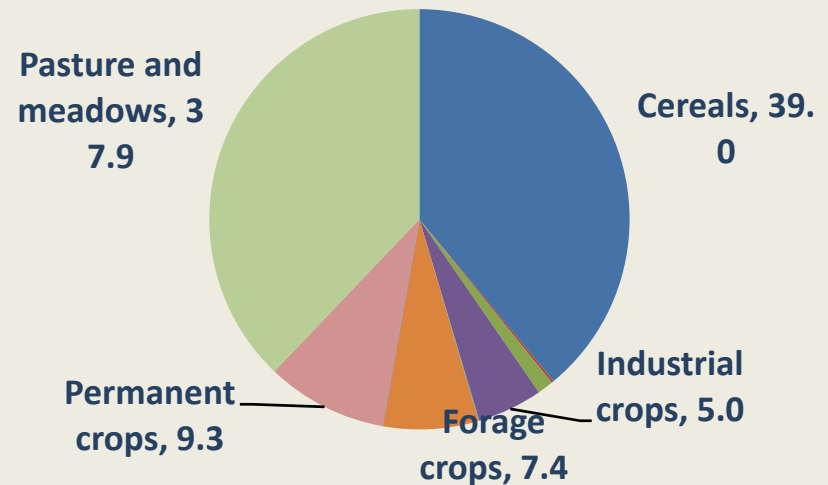
Among organic farms, compared to overall region:

- more pasture and meadows
- more permanent crops
- less cereals, industrial crops, forage crops

Shares on total UAA of organic farms  
Piedmont

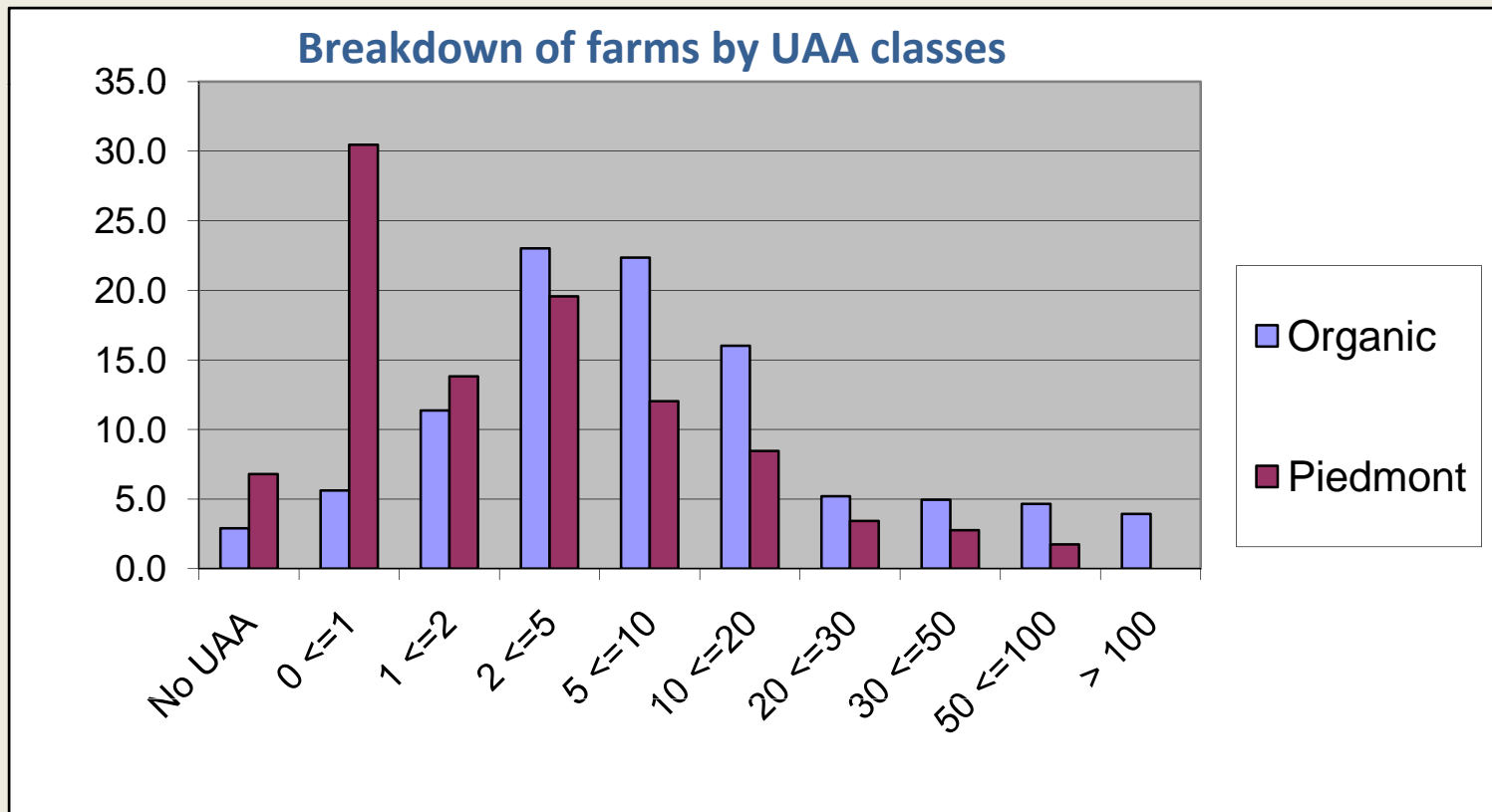


Shares on total UAA of overall Piedmont



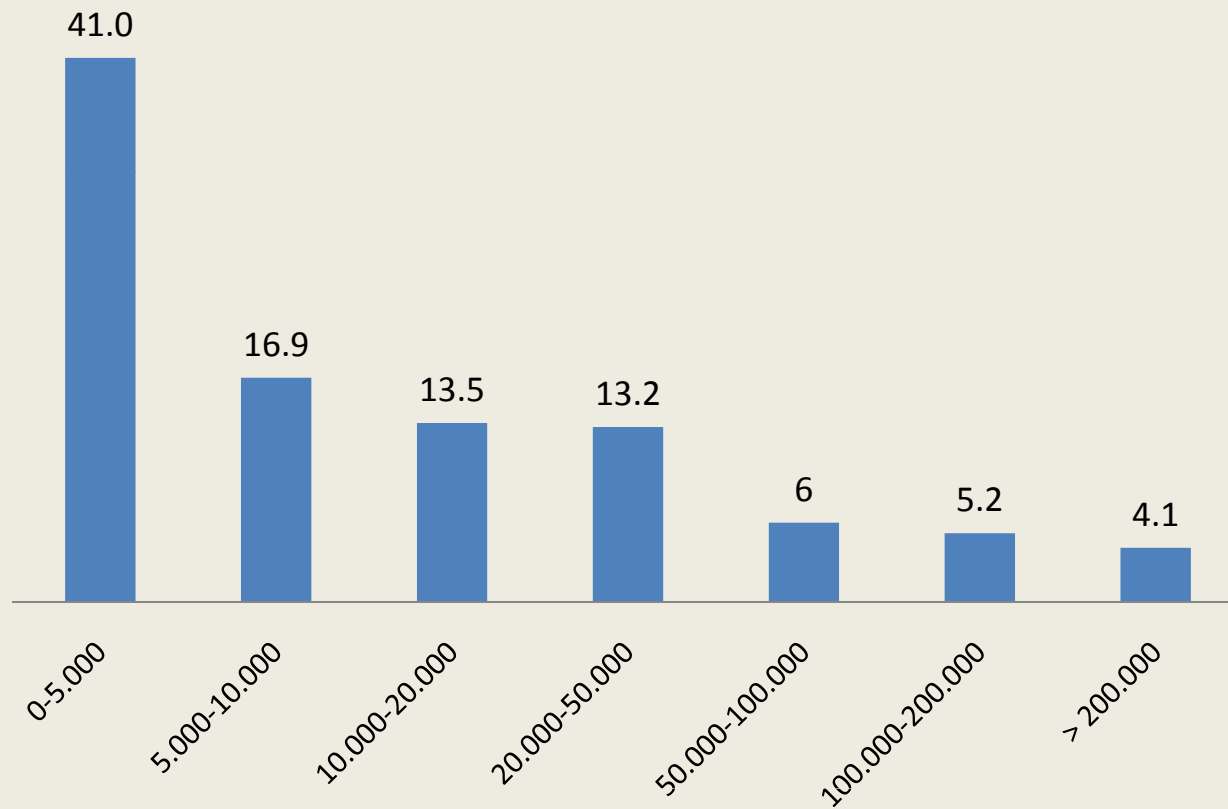
## Farm size: organic vs. overall

- high share of small size farms, but average size higher than the regional one (22.3 vs. 8.8 ha)
- organic farming no more based on small, committed farmers



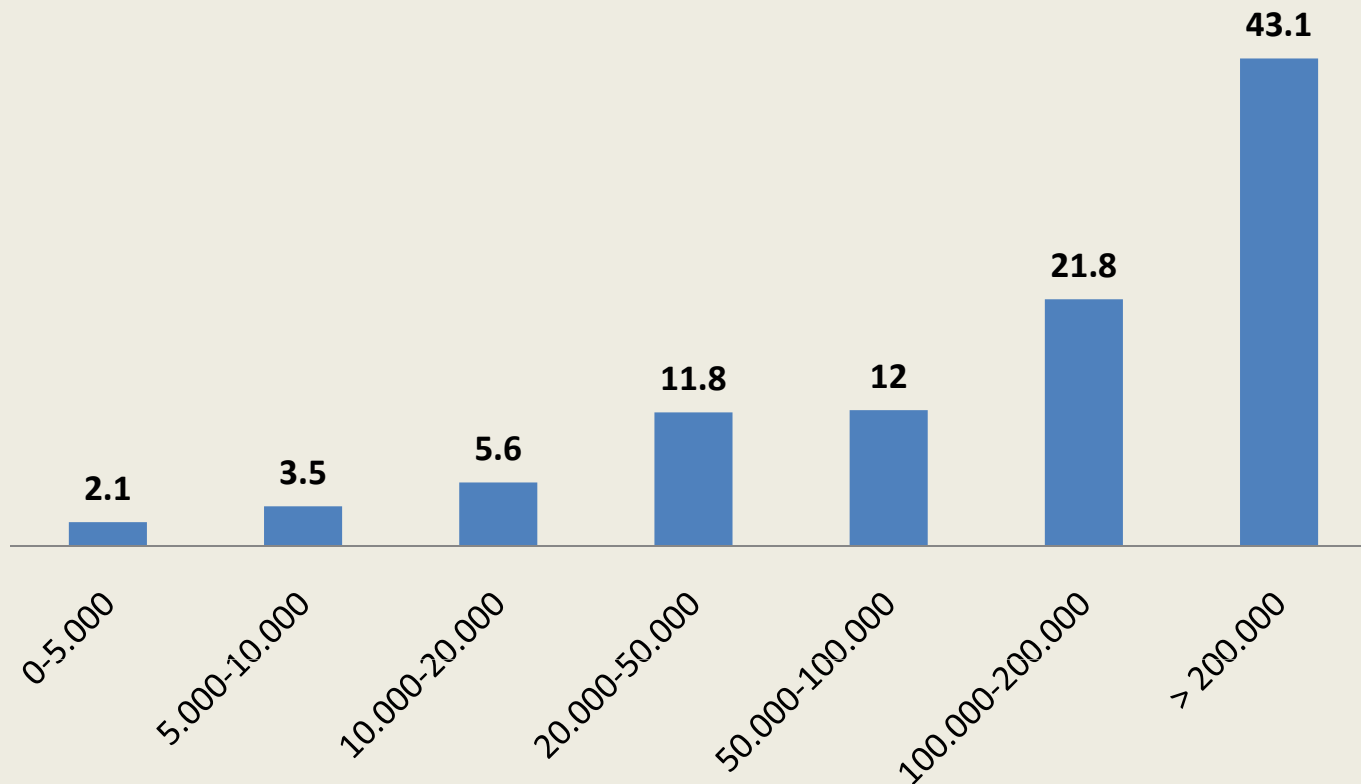
# Farm economic size

## Breakdown of # of organic farms by sales classes (%)



# Farm economic size

## Breakdown of total sales of organic farms by sales classes (%)



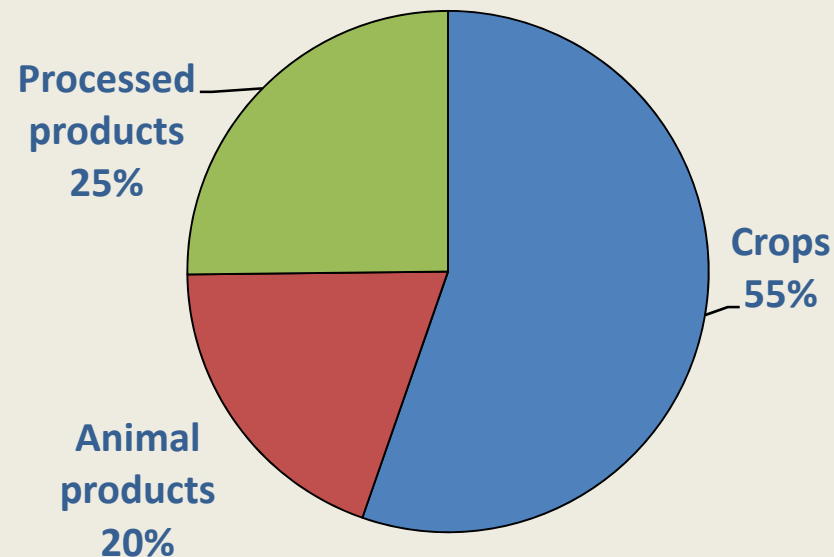
# Types of farming and specialization

	Organic	Piedmont
Specialized	76.8	83.2
Permanent crops	32.7	36.6
Annual crops	12.9	24.6
Vegetables	5.1	1.1
Herbivores	6.4	19.4
Processed products	13.2	-
Mixed	23.2	16.8
Total	100.0	100.0

## Breakdown of value of production

- crops and processed products most important
- permanent crops the largest part of crop sales (39%), then cereals (33%)
- wine the largest part of processed products (58%)

### Shares over total sales



# Value of production

- among single categories, the most important are permanent crops (21%), cereals (18%), wine (15%)
- overall, production of organic farms is 1.5-2% of regional value of production
- organic production sold as such is 1-1.6% of regional value of production
- lower share for animal production

# Marketing chains

## **Outlet of organic production:**

- sold as conventional

# Marketing chains

## Outlet of organic production:

- sold as conventional

- sold as organic:

- on the farm

- on farmers' markets

- on the Internet

- home delivery

short chain

- wholesale

- co-operatives

- large-scale distribution

“traditional chains”

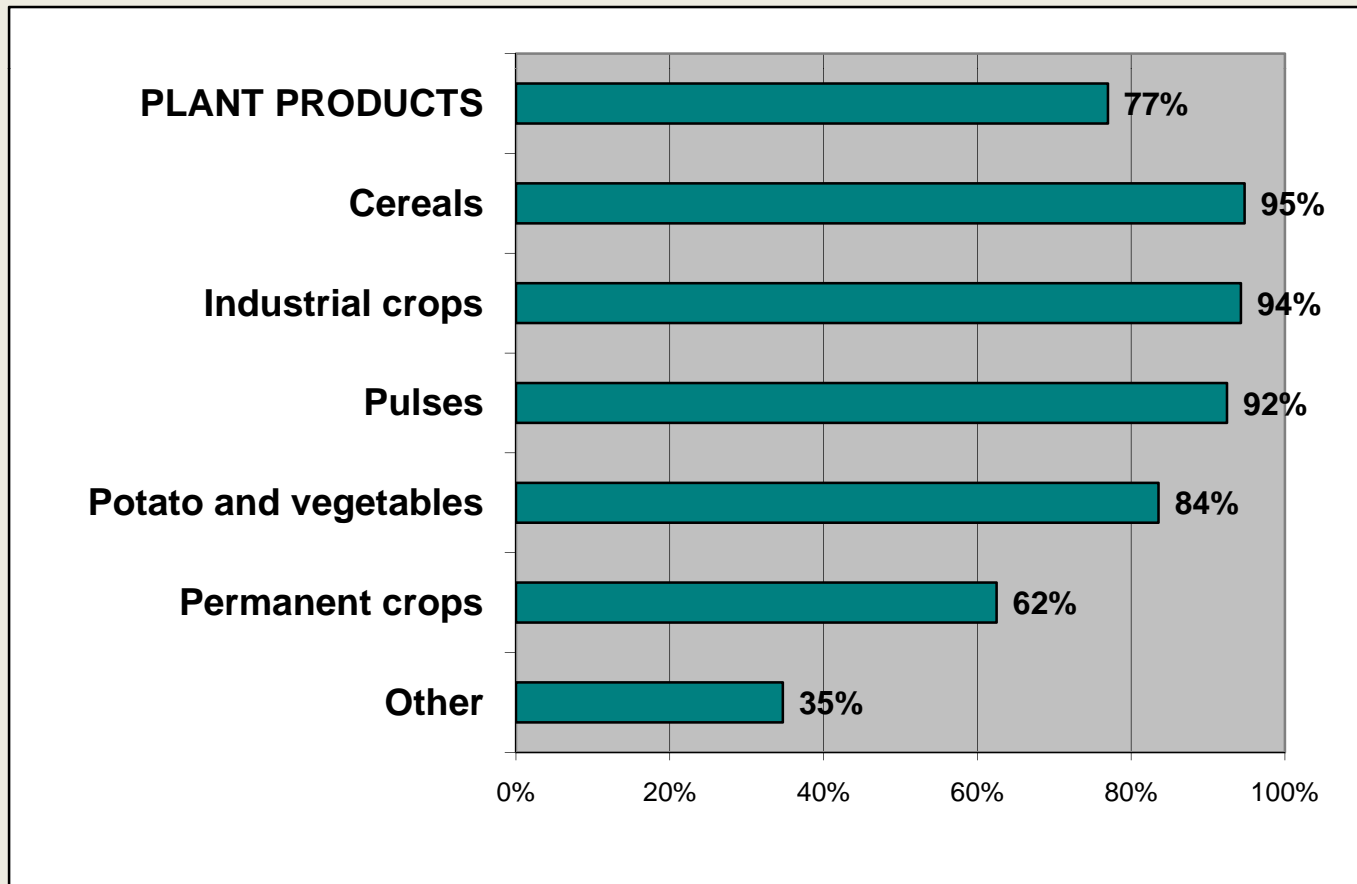
- specialized shops

- restaurants

specialized chain

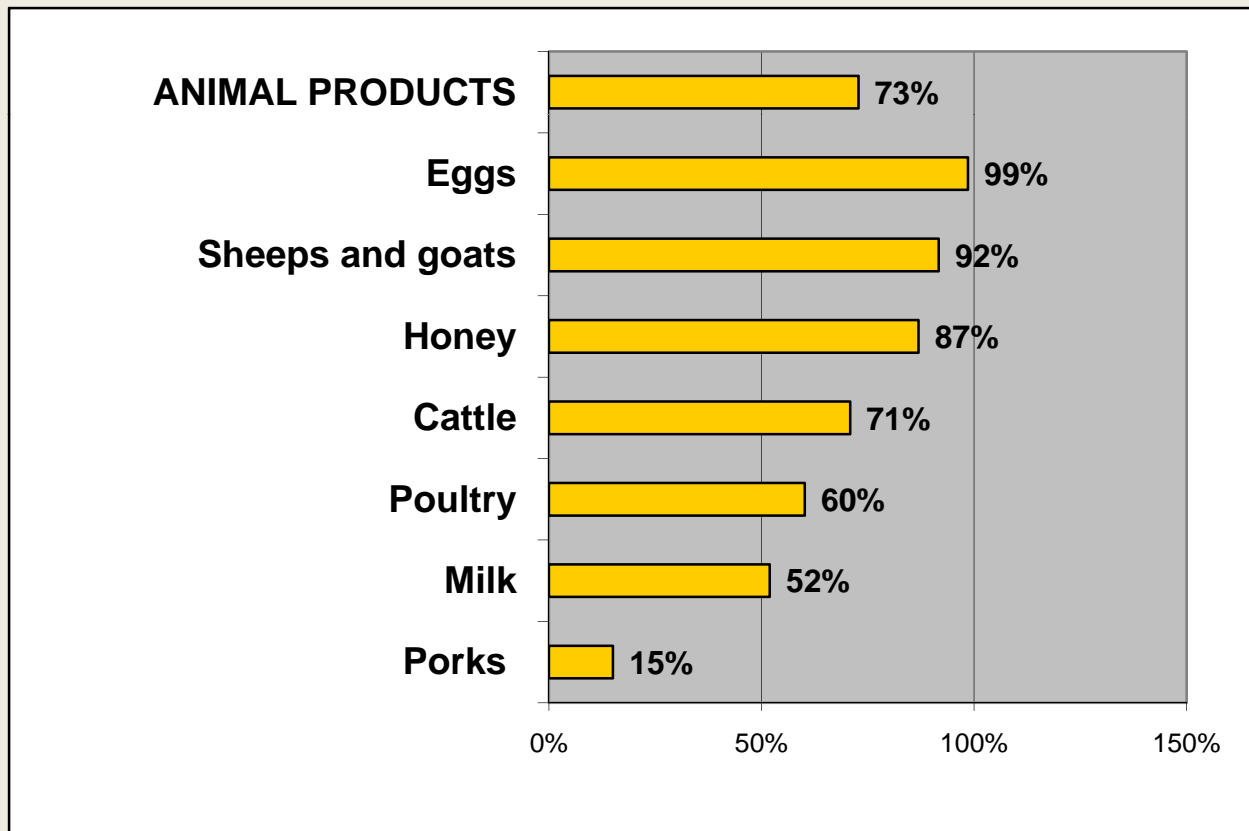
# Sales as organic product

- **% organic sold as organic** different across products
- overall, **77%** of the value of organic plant production sold as such
- low share for permanent crops (wine grapes)



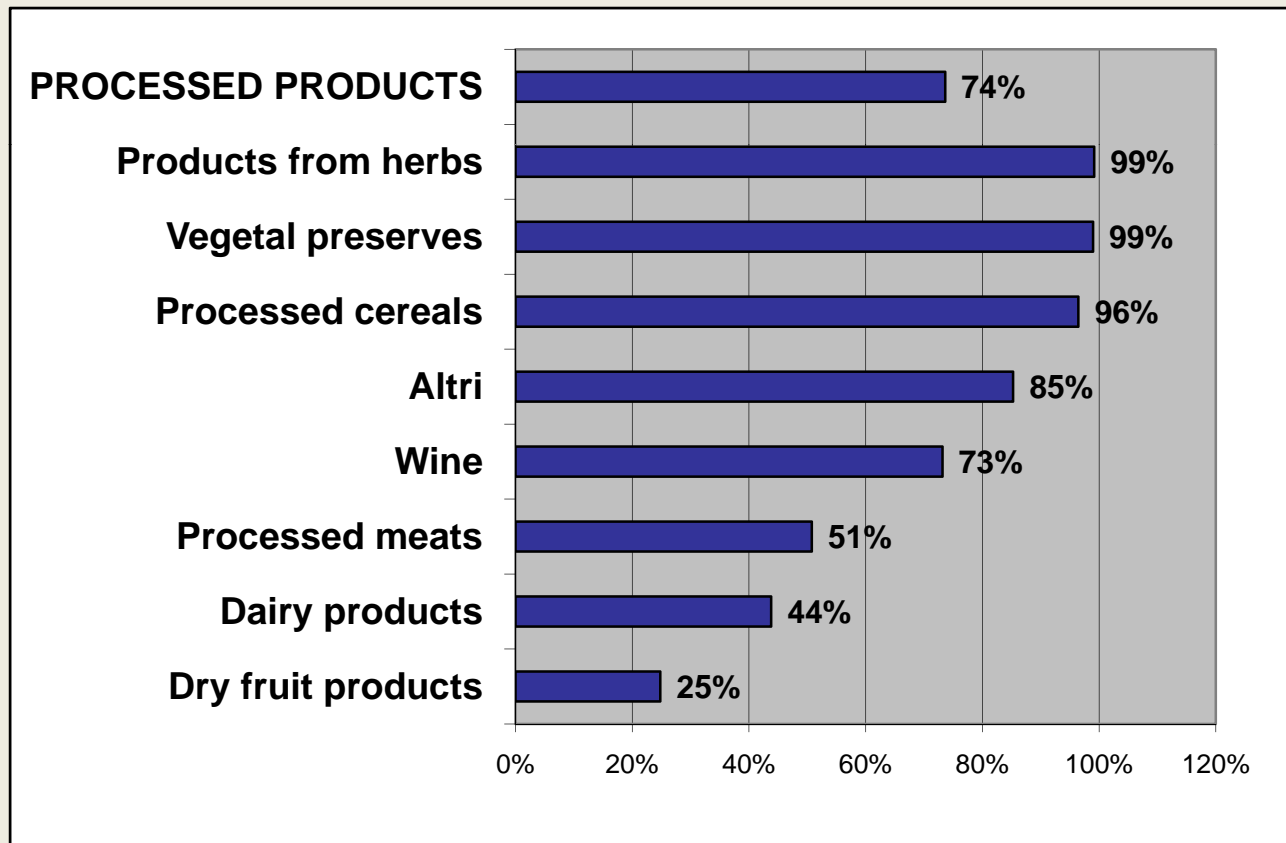
# Sales as organic product

-Lower share for animal prod. (73%), specially due to pork



# Sales as organic product

-largest shares among processed products (but overall **74%**, due to processed meats, dairy and dry fruit prod.)

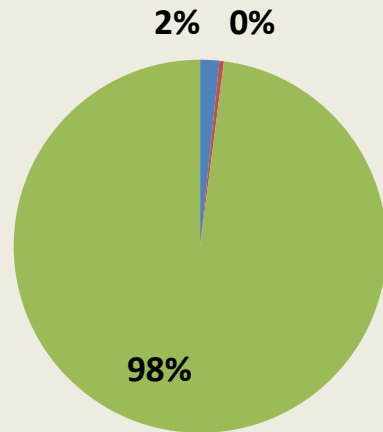


# Marketing chains

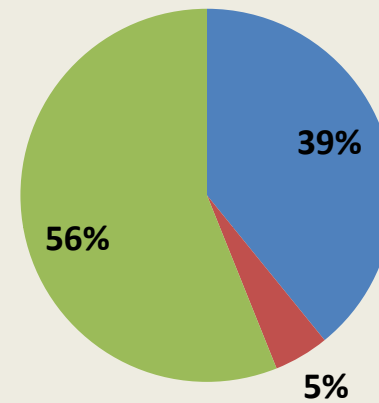
- Distribution by marketing chain differentiated by categories and products
- Differences among outlet in short, specialized or “traditional” chains mostly depend on the nature of the product, but may also depend on marketing skills and market structures

# Marketing chains: shares of sales

## Cereals

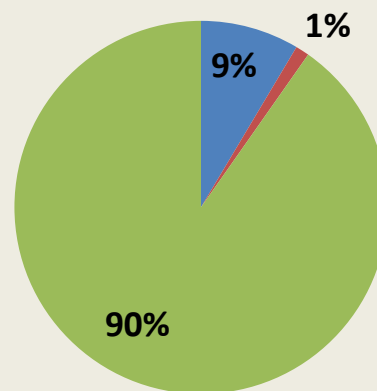


## Potato and vegetables



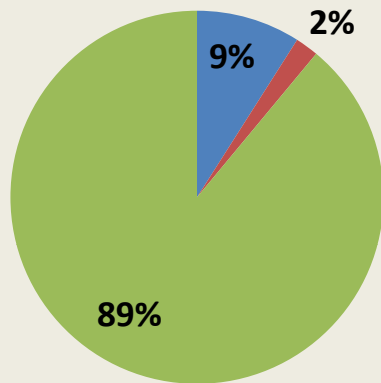
- Short
- Specialized
- Traditional

## Permanent crops

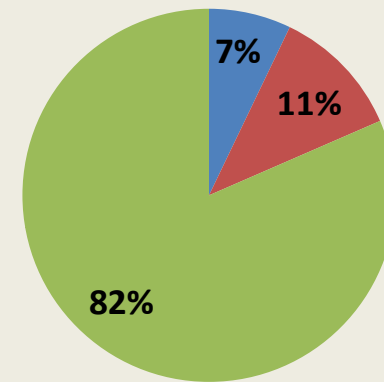


# Marketing chains : shares of sales

## Plant products

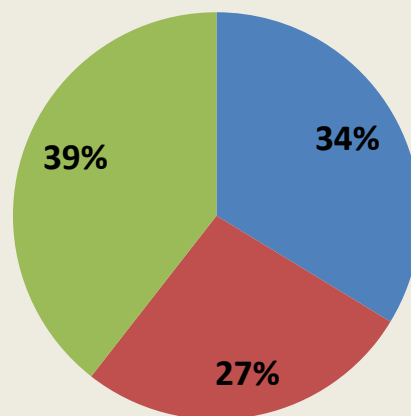


## Animal products



- Short
- Specialized
- Traditional

## Processed products



# Main issues for future prospects of organic farming: the choice to go organic

-farmers' choice to go organic depends on:

- personal beliefs
- economic considerations:
  - change in revenues vs. change in costs

- revenues:

- yields -> technical problems
- prices -> premium price & outlet
- subsidies

- costs:

- production costs -> technical problems
- certification costs

# What organic farmers perceive

## Main **critical issues** stated by organic farmers:

- outlet problem predominant (28%), and consequently, low prices (25%)
- technical difficulties (15%) and high costs (13%) less important
- bureaucratic burden for certification (16%) also non determinant

# What organic farmers do: why do they sell organic as conventional ?

## Reasons for selling organic as conventional:

- outlet problem predominant (84%)
- conversion stage (3%)
- low profitability (7.5%), both for low prices and for certification costs

## Producer price premium

- Prices are an obvious determinant for going organic
- What is the price premium for organic products?
- An hedonic price estimation of producer price of organic wine
- hedonic price equations for organic and conventional wine starting from the production side, i.e., from the characteristics of the farms and of the wines

## Producer price premium

- Organic wine producers also grow conventional grapes
- Average prices, based on descriptive statistics, of organic and conventional wine are not significantly different
- explanatory variables in the hedonic price equation include appellations, grape variety, organic grapes, operator and farm characteristics

- the results would suggest a 23% premium
- but separate estimation of price eqns. shows that the variables differently affect conventional and organic wine prices
- this suggests that there may be different farm and operator characteristics that make more or less profitable to go organic
- important for predicting future development of organic farming
- Remark: farm specialization positively affects price

## Main issues for future prospects of organic farming: outlets and subsidies

### Reasons for intention of quitting organic (18% of surveyed farmers)

No more subsidies:	31%
Low profitability:	24%
Lack of outlets:	17%
Technical difficulties:	10%
Bureaucratic burden:	11%
Other:	3%

# Main issues for future prospects of organic farming: outlets and subsidies

## Reasons for having quit organic

(11% of surveyed farms)

No more subsidies:	57%
Lack of outlets:	14%
Certification costs :	9%
Technical difficulties:	5%
Bureaucratic burden:	3%
Personal reasons & other:	12%

(54% would come back if conditions change, specially those indicating end of subsidies)

# Future prospects of organic farming and policy issues

-These results suggest

- turnover and structural change of the industry
- strong effect of subsidies

- subsidies to organic farming have the effect of dividing farmers' choice into two issues:

- going organic -> process certification -> affected by subsidies, revenues and costs
- selling organic -> product certification -> affected by certification costs, by premium on organic certified product, and by outlets

## Future prospects of organic farming and policy issues

- Research should try and disentangle these different choices (not relevant for countries where organic is not subsidized)
- this draws in
  - certification and relevant costs
  - policies

# Future prospects of organic farming and policy issues

- Product certification copes with information asymmetry, but different possibilities:
  - Public branding (EU, member states, regional authorities)
  - Collective branding (associations, consortia)
  - Private branding
    - Retailer's brand
    - Producer's brand
    - Certification body's brand

## Future prospects of organic farming and policy issues

- Certification by private associations and by firms came first
- Increasing trend in creating private labels by large retail
- EU Standard for Organic food: Reg. EC 2092/91 (general) and Reg. EC 1804/1999 (main domestic animal production)
- New regulation EC 834/2007 to be enforced as from 2009
- research on the effects of labels and certification scarce in Europe

# Future prospects of organic farming and policy issues

Why should public bodies intervene on organic?

- From a public decision-maker perspective, organic farming is relevant because of positive externalities (decrease of negative externalities)
- this effect is partly paid by consumers, partly (where subsidies exist) by taxpayers

## Future prospects of organic farming and policy issues

Public decision-makers have two interests:

- to match as much as possible consumers' willingness to pay with producers' willingness to sell (let the market produce the externality as much as possible!)
- to subsidize farmers for the real externality produced, for the remaining market failure

## Future prospects of organic farming and policy issues

To help matching demand and supply:

- regulations and labels
- help to organize and concentrate supply

# Future prospects of organic farming and policy issues

## Remarks:

- public regulation can create inconsistencies with environmental goals
  - tendency towards commercial organic farms
  - organic = just complying with established rules?
  - specialization vs. the “spirit” of organic
  - new EU regulation insists on the “spirit”

# Future prospects of organic farming and policy issues

## Remarks:

- short chain and food miles as new frontiers?
  - problems with the geographical mismatch between demand and supply
- subsidies to organic farming can over- or under-compensate externalities
  - common to many environmental policies, but particularly in agro-environmental policies

## Research issues:

- effects of regulations and labels on production practices
- determinants of farmers' choice:
  - to adopt organic
    - effects of subsidies
  - to certify
    - price premium at the production level
    - effects of outlet constraints
    - certification costs
- environmental effects of organic farming

Thanks for your attention!