



Organic Horticulture World-wide

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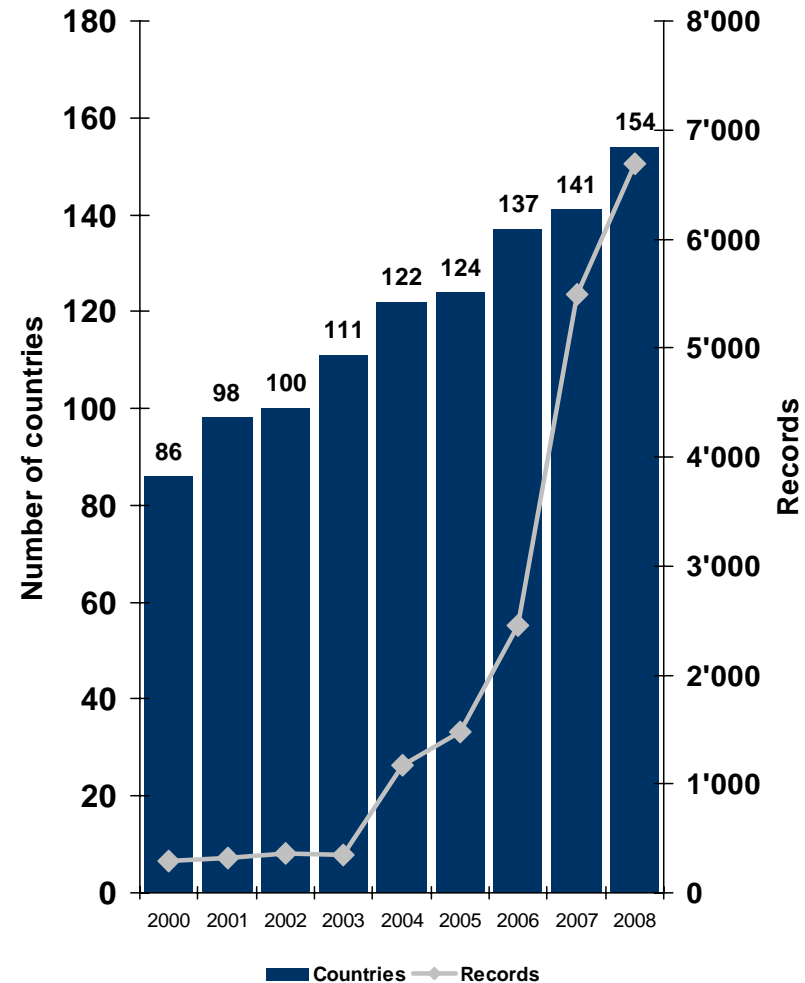
Presentation at: 28th International Horticultural Congress,
Symposium Organic Horticulture: Productivity and Sustainability
August 22-27, 2010, Lisbon

Contents of this presentation

- About the data collection on organic agriculture world-wide of the Research Institute of Organic Agriculture FiBL and the International Federation of Organic Agriculture Movements IFOAM;
- Key results of the most recent survey on organic agriculture world-wide;
- The organic market;
- Horticultural crops:
 - General
 - Vegetables
 - Fruits
 - Olives, Grapes, Coffee, Cocoa
- Conclusion

Global survey on organic agriculture

- Annual FiBL/IFOAM survey on organic agriculture world-wide: production data as well as market and trade data
- Data and information provided by 180 country experts (representatives from NGOs, certification bodies, governments) or bodies like Eurostat and IAMB)
- Data from 154 countries
- Since 2004: Land use and crop data
- Publication: 'The World of Organic Agriculture' and www.organic-world.net

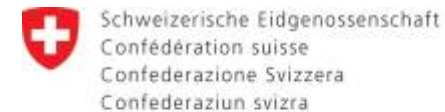


Source: FiBL and IFOAM Survey 2010

The Global Organic Survey 2010

- The global organic survey 2010 as well as the production of the yearbook, 'The World of Organic Agriculture' is carried out by FiBL and IFOAM with the support of:
 - International Trade Centre, Geneva
 - Swiss State Secretariat of Economic Affairs SECO, Bern
 - Database
 - Expansion of data collection to new variables (market and trade data)
 - Classification for crops and manufactured products
 - Website
 - Overview of data collection systems

- Nürnberg Messe, the organizers of the BioFach Organic Trade Fair



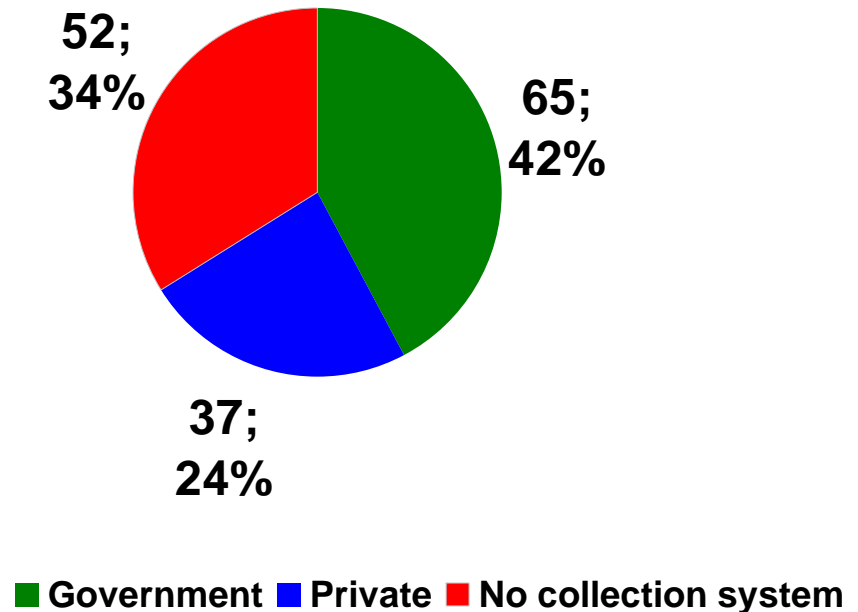
Swiss Confederation

Federal Department of Economic Affairs FDEA
State Secretariat for Economic Affairs SECO



Organic data collection systems world-wide 2008 for production data (total 154 countries)

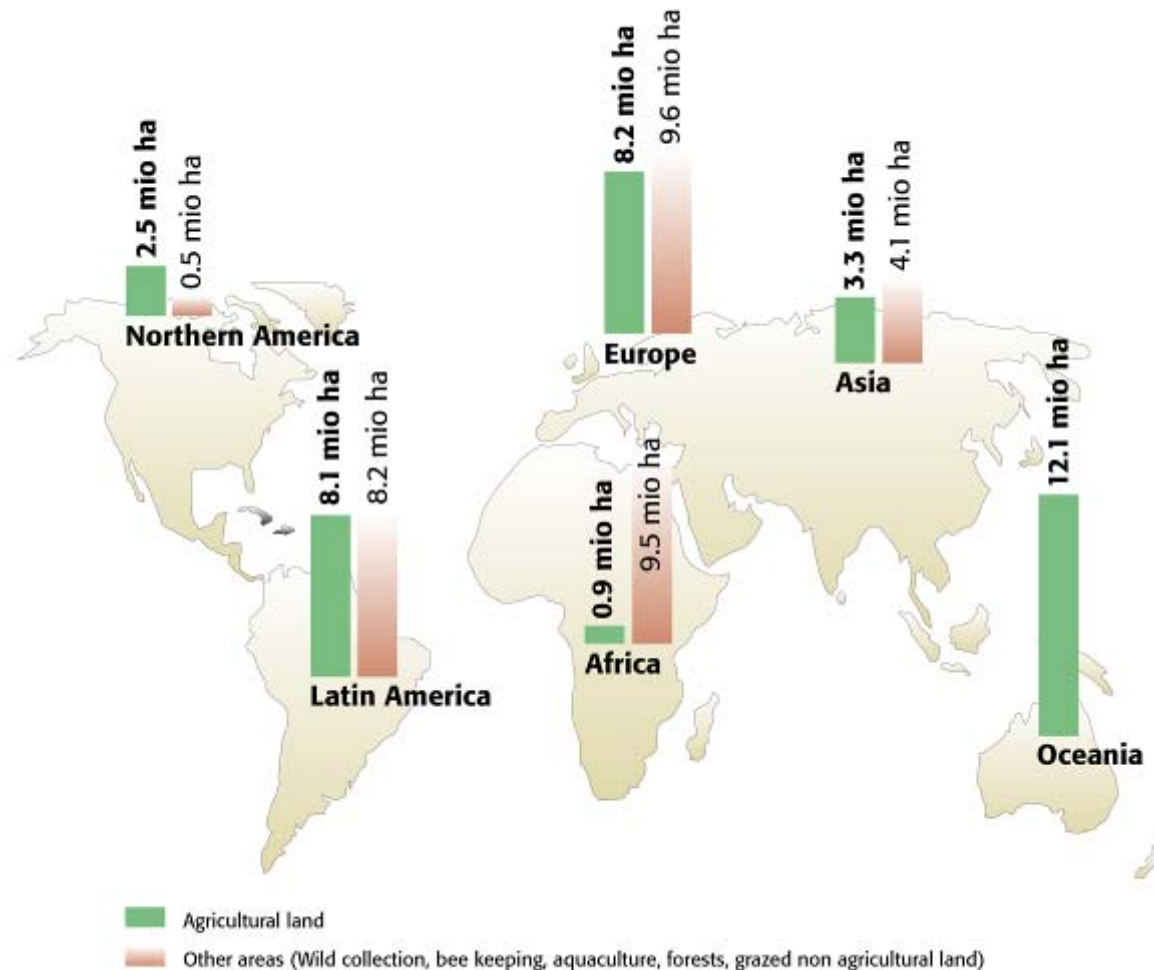
- Government collection systems (65 countries)
 - Data from the certifiers
 - Census/farm structure survey
 - Direct payments
- Private collection systems (37 countries)
 - Data from the certifiers
 - Company data
- No collection system (52 countries)
 - IFOAM and FiBL collect the data from the international certifiers



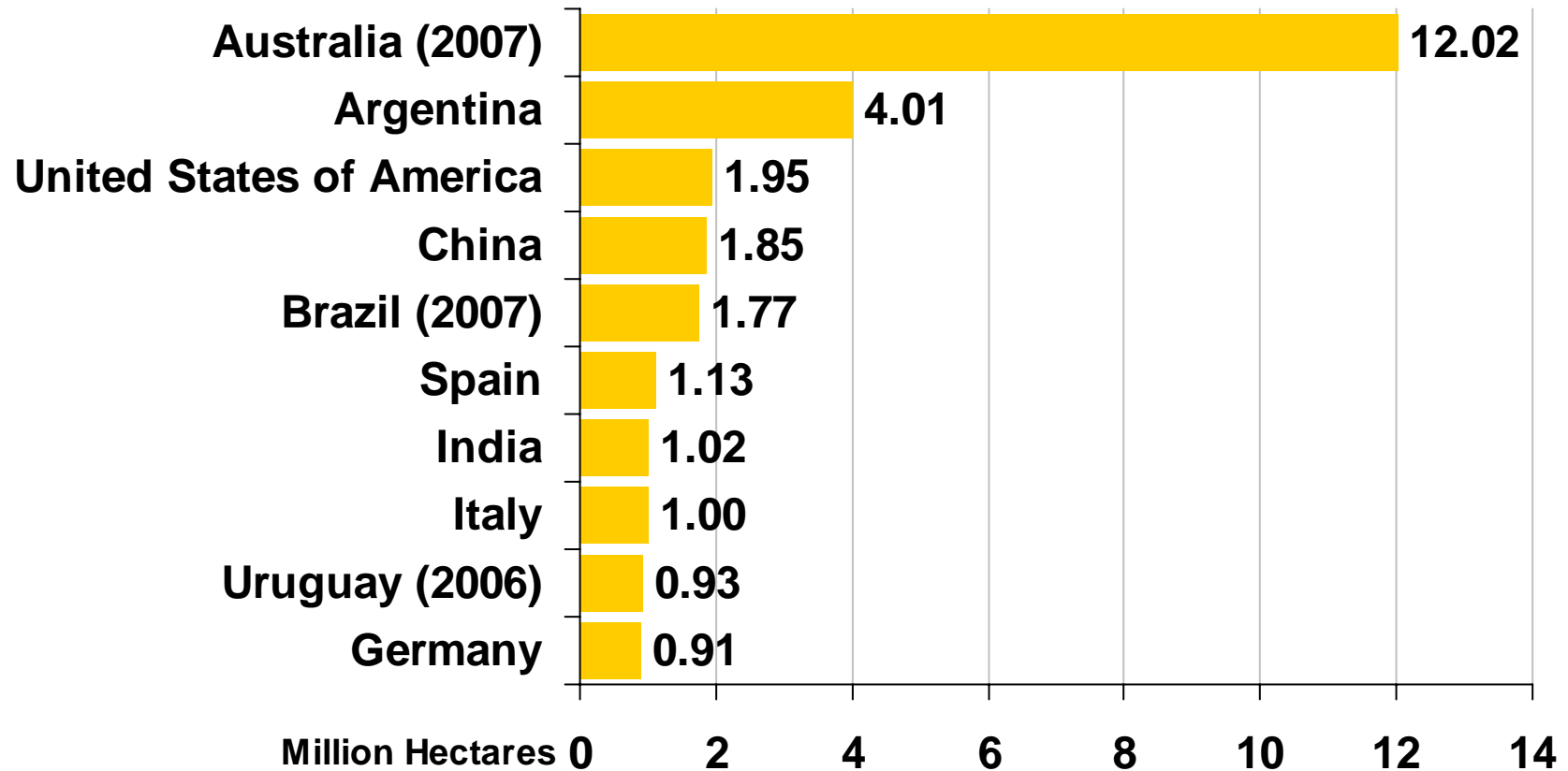
Problems related to data / data collection

- Countries with no data collection: Not all certifiers may share their data, sometimes problems of continuity of data supply, therefore comparability over the years for these countries difficult;
- Data availability is generally improving every year, again, this can make a direct year-to-year comparison difficult;
- From major organic producer countries data on land use / crops grown are missing, even though overall data on organic agriculture are available (Australia, Brazil, China, India);
- No harmonized classification system for crops/products.

Organic agricultural land and other certified areas 2008 (total: 35.2 million hectares agricultural land; including in-conversion areas)

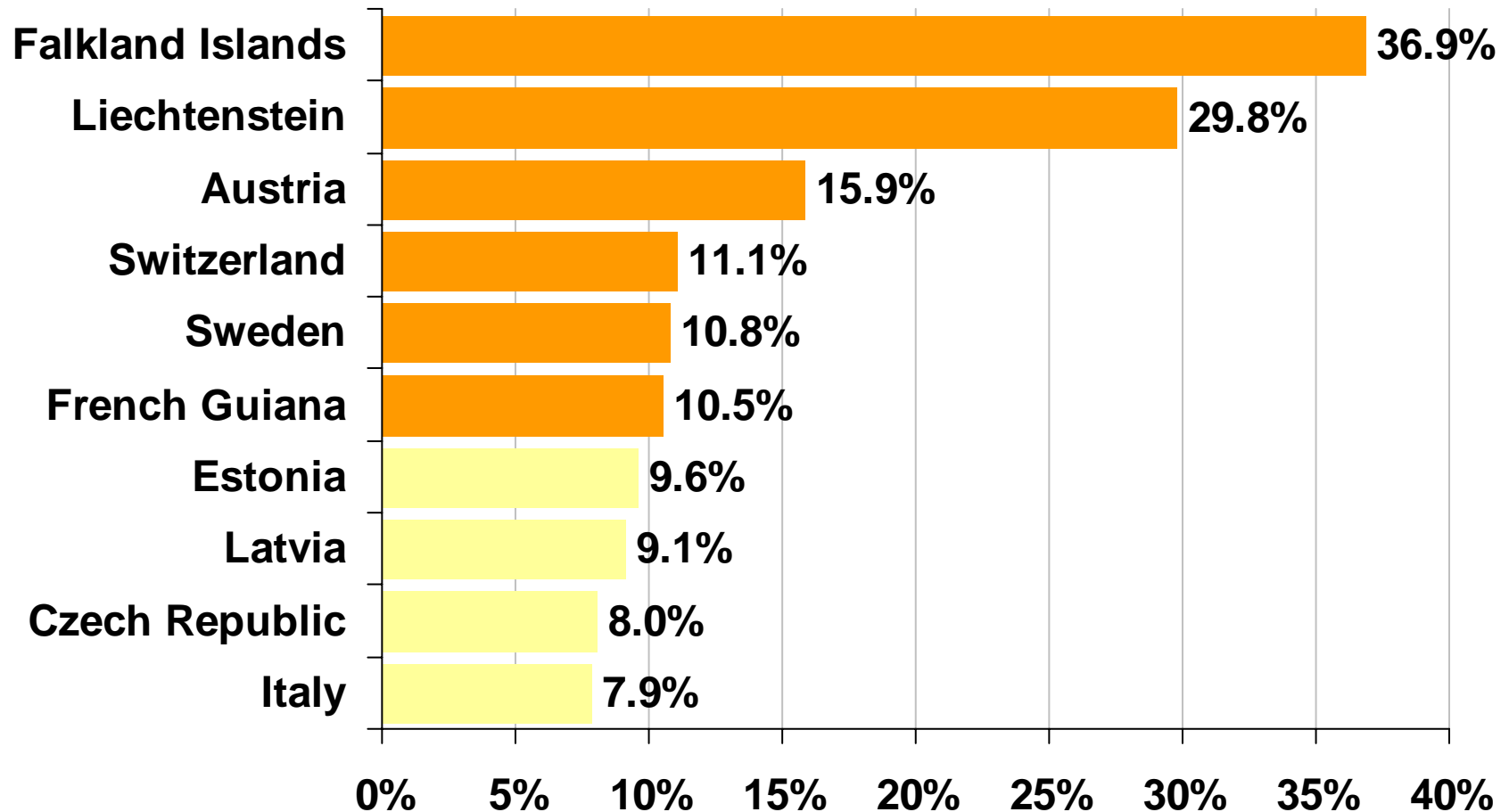


World: The ten countries with the most organic agricultural land 2008

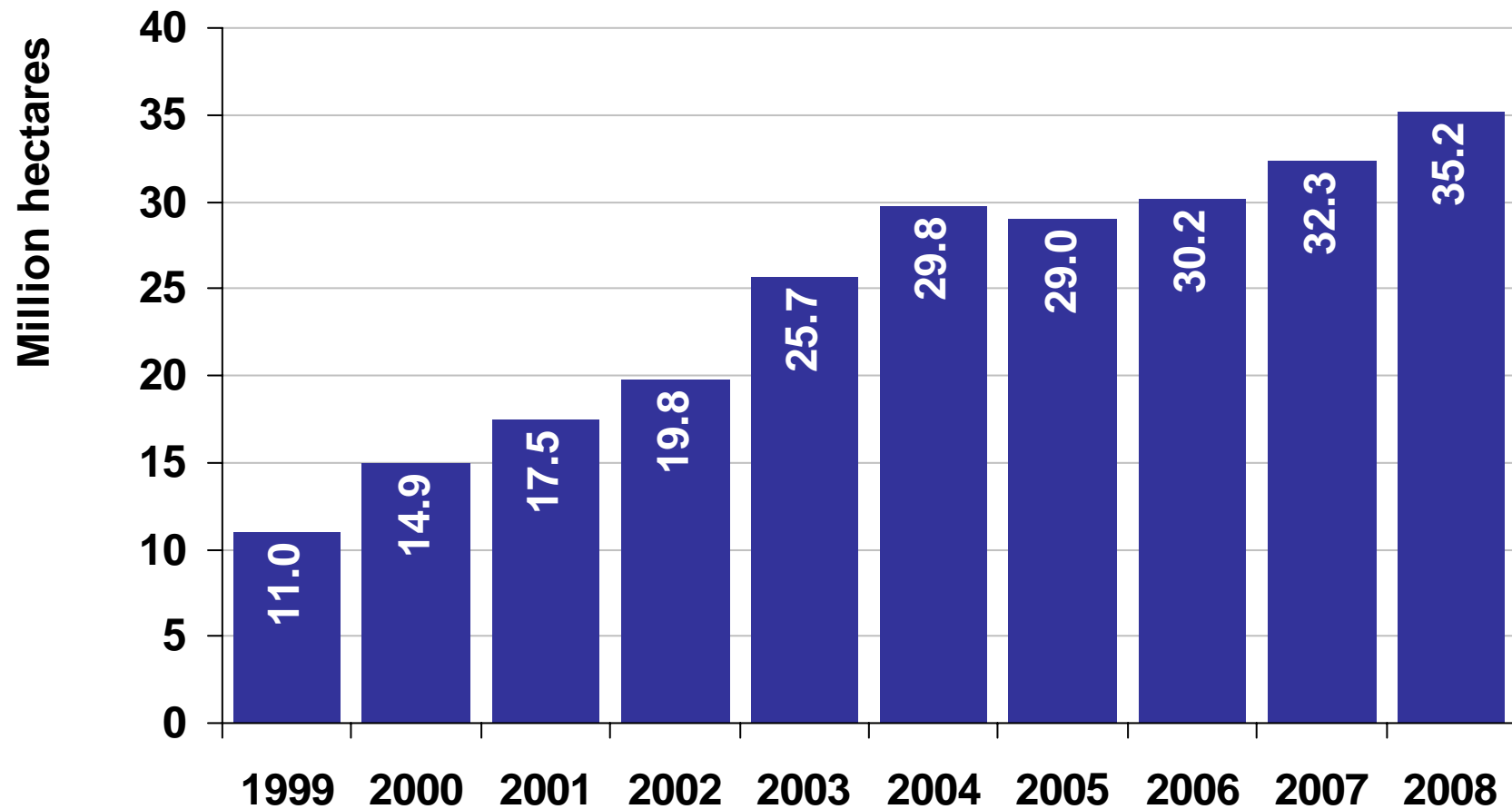


Argentina, US and Uruguay: Only fully converted areas

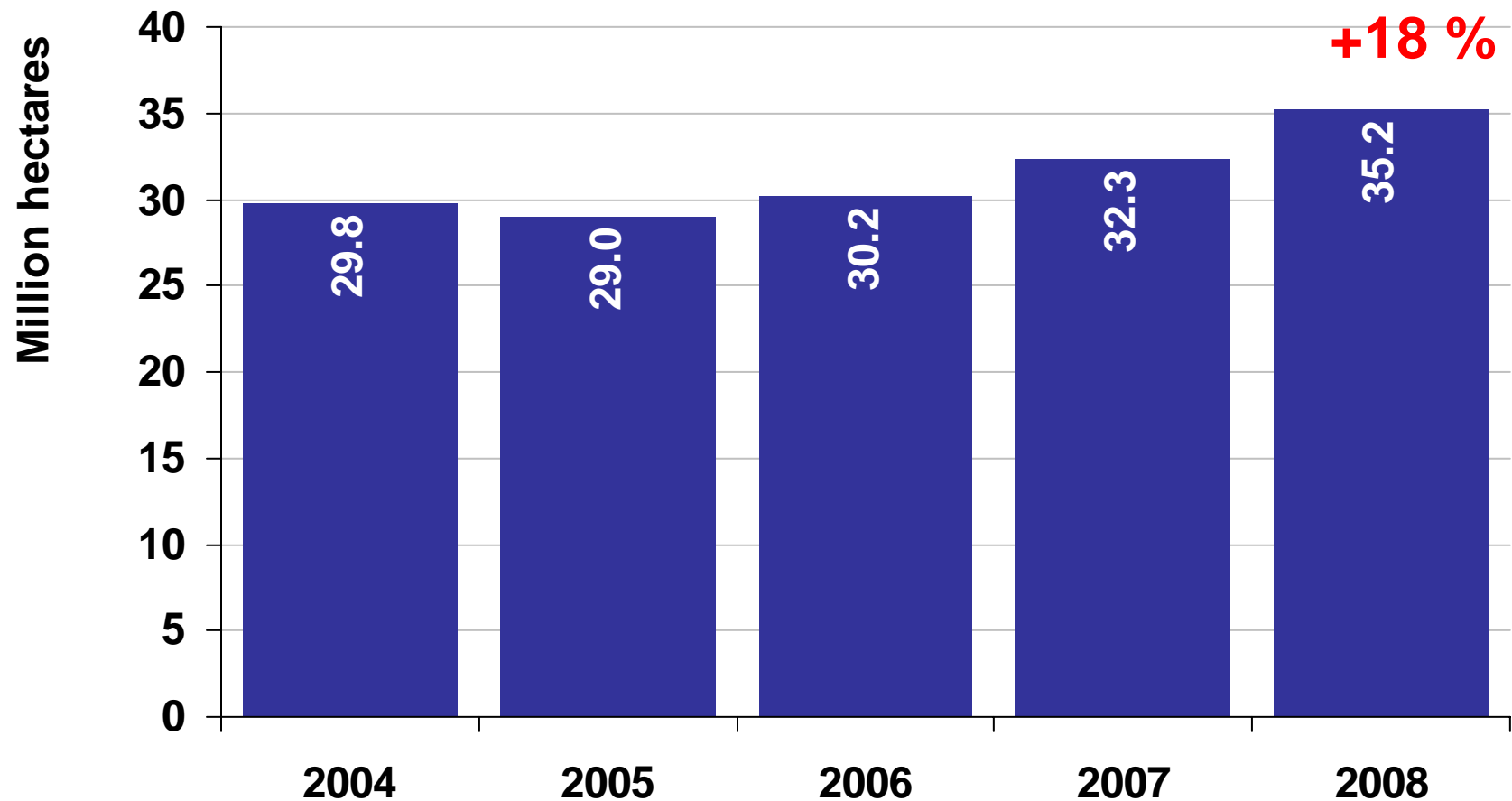
The ten countries/areas with the highest shares of organic agricultural land 2008



World: Development of organic agricultural land 1999-2008

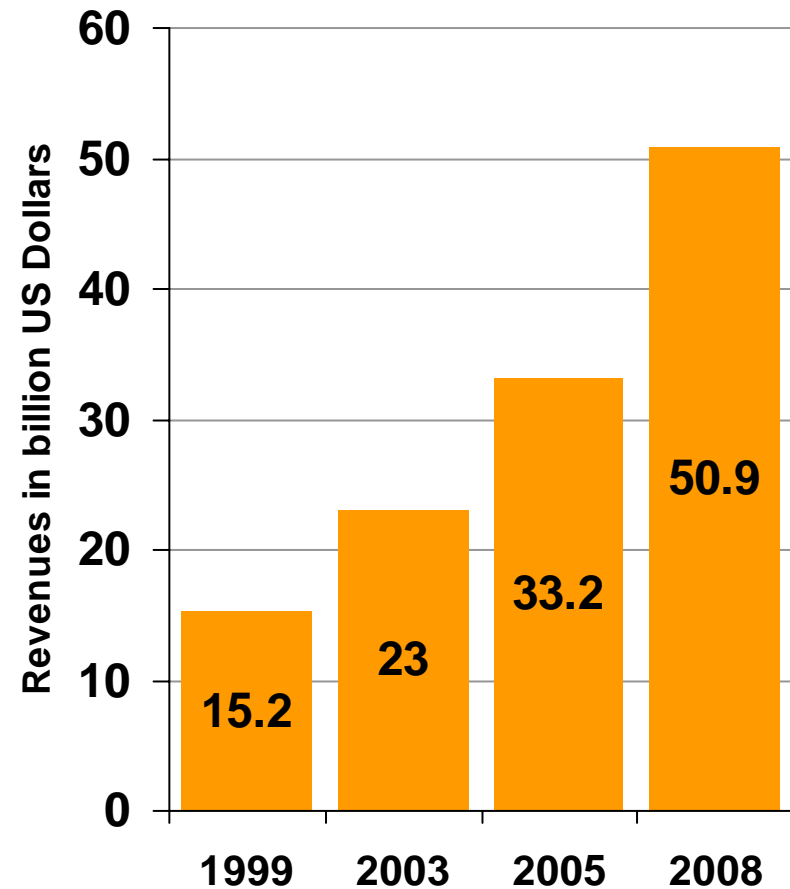
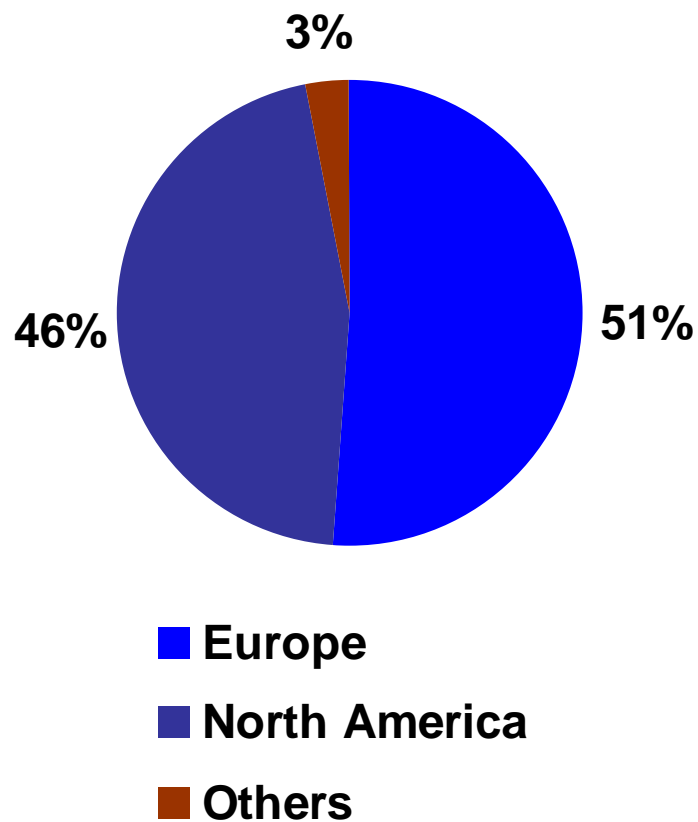


World: Development of organic agricultural land 2004-2008

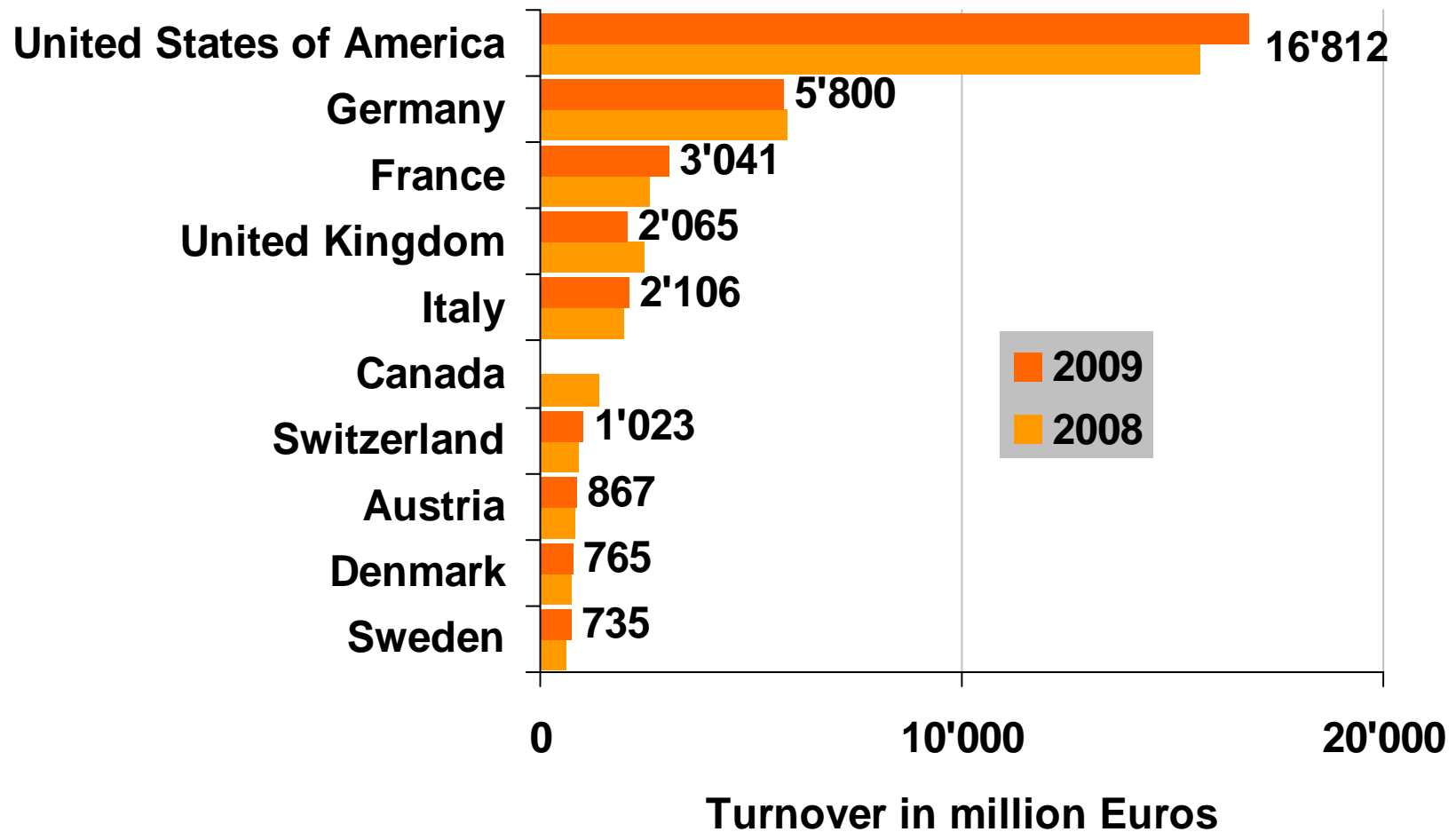


Global revenues by region 2008

Global market growth 1999-2008



Global organic market: The ten countries with the largest markets for organic food 2008



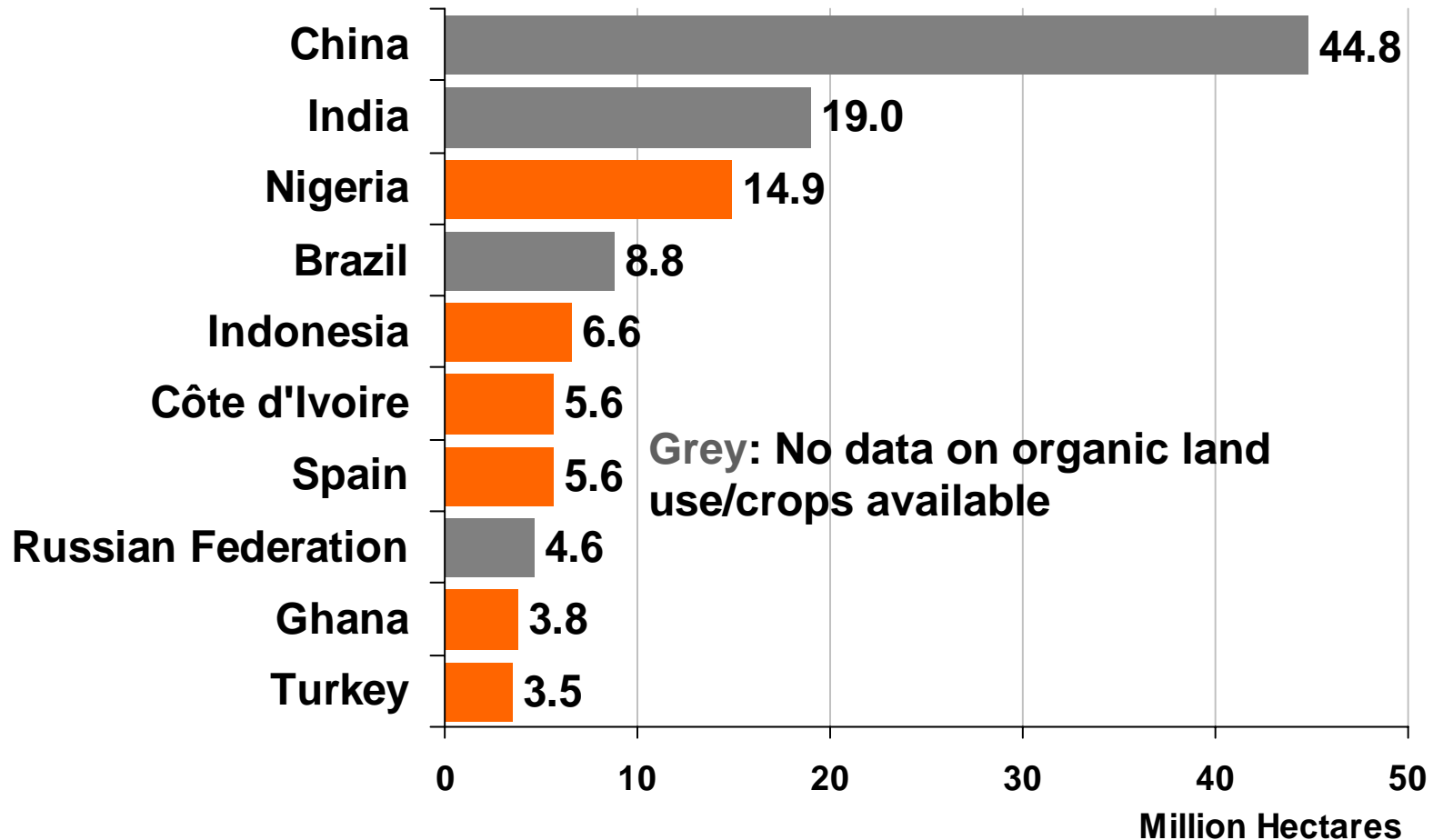
What are horticultural crops?

- Horticulture, according to many definitions = “The science and art of growing
 - fruits,
 - vegetables,
 - flowers, or ornamental plants” (Merriam-Webster on-line dictionary).
- The International Society of Horticultural Sciences ISHS takes a broader view, and includes crops such as:
 - nuts,
 - olives (technically a fruit, but classified separately),
 - medicinal and aromatic plants,
 - root crops such as potato and cassava, and
 - beverage crops such as coffee, tea, and cocoa.

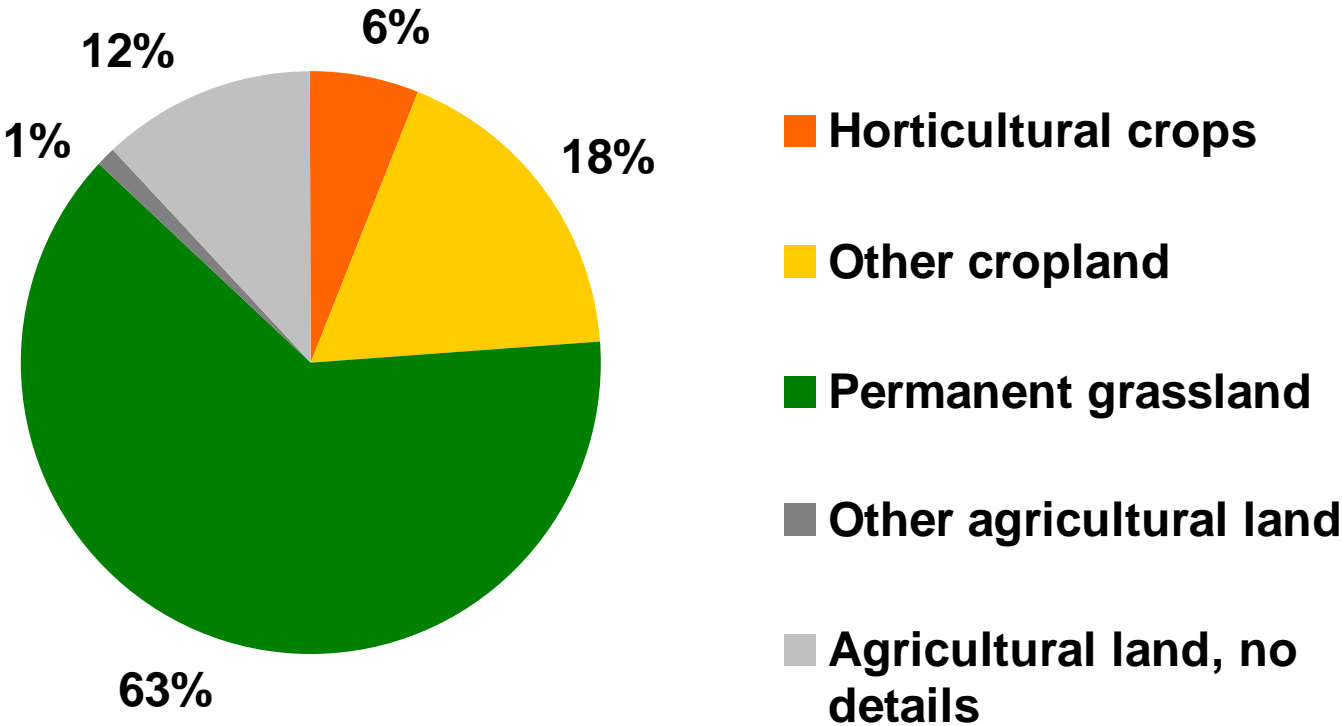
Organic horticultural crops 2008

- At least 2.16 million hectares of organic horticultural crops are grown.
- This constitutes one percent of the world's horticultural cropland of 200 million hectares.
- The countries with the largest areas of organic horticultural land are Mexico, Italy, and Spain.
- For some of the countries with largest horticultural areas (China, India, Brazil) no information on the use of the organic land / crops grown is available.
- It may therefore be assumed that the organic horticultural area is higher than 2.2 million hectares.

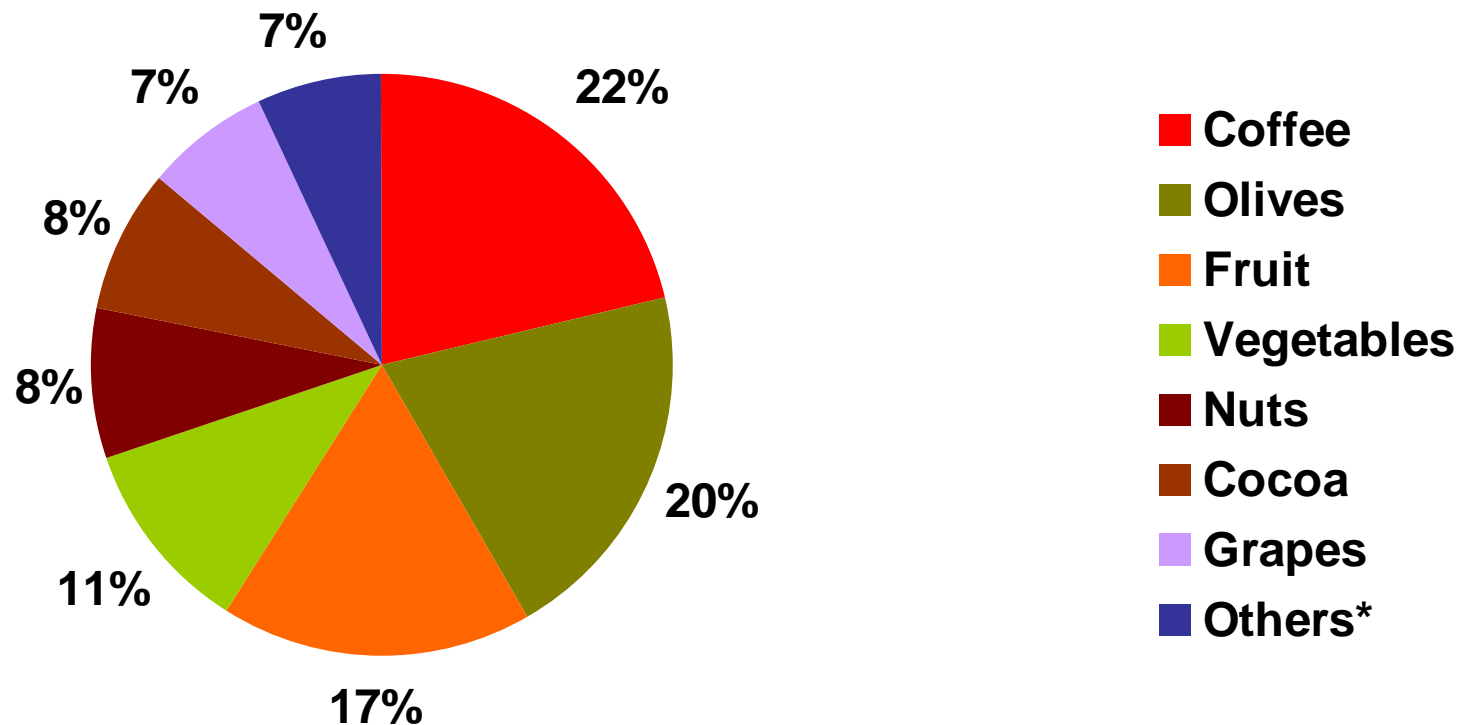
Horticultural crops: The ten countries with the largest horticultural areas 2008



Use of organic agricultural land 2008 world-wide: Horticultural crops, further uses (total: 35.2 million hectares)

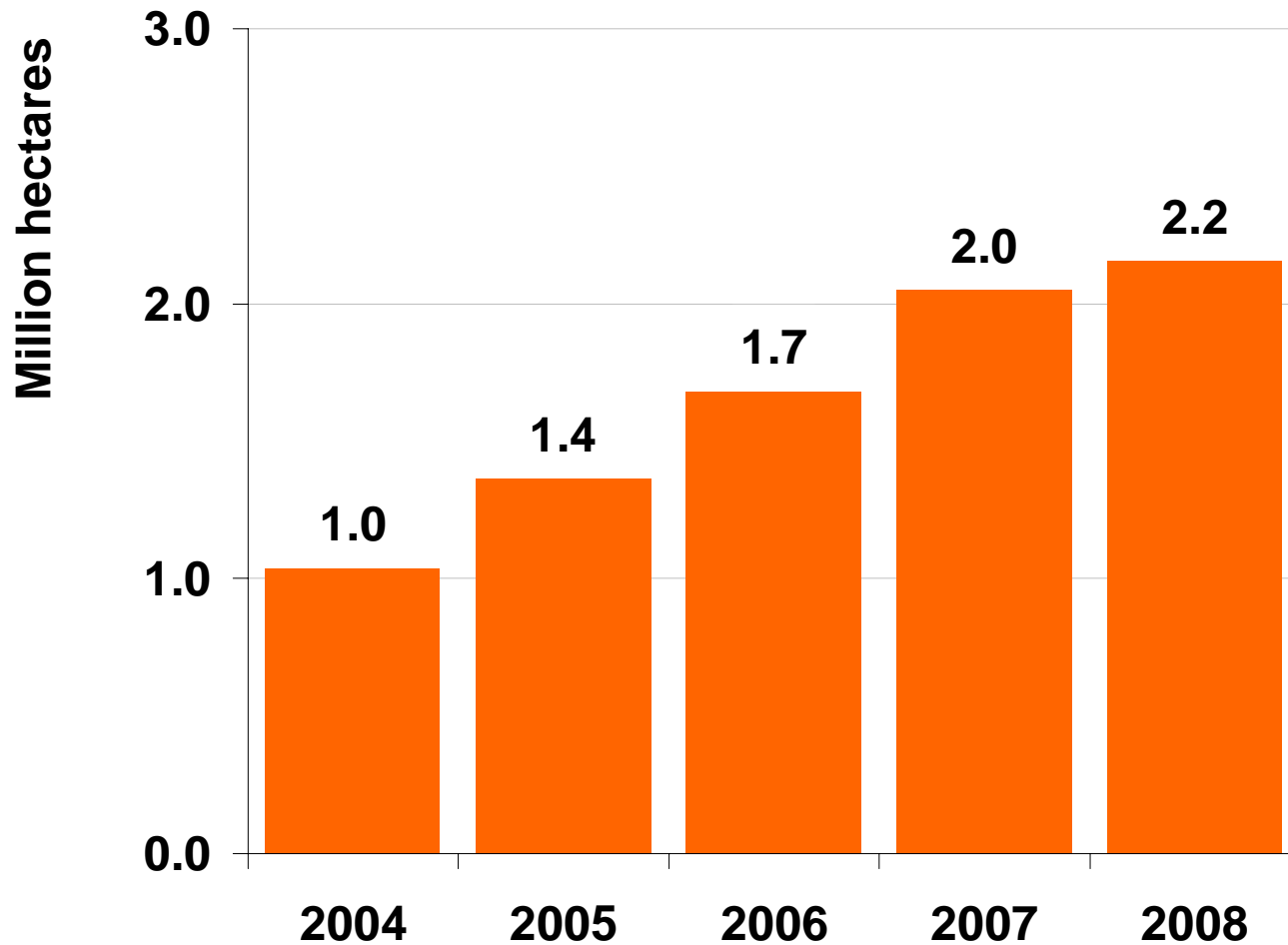


Use of organic horticultural land 2008 (Total: 2.16 million hectares)

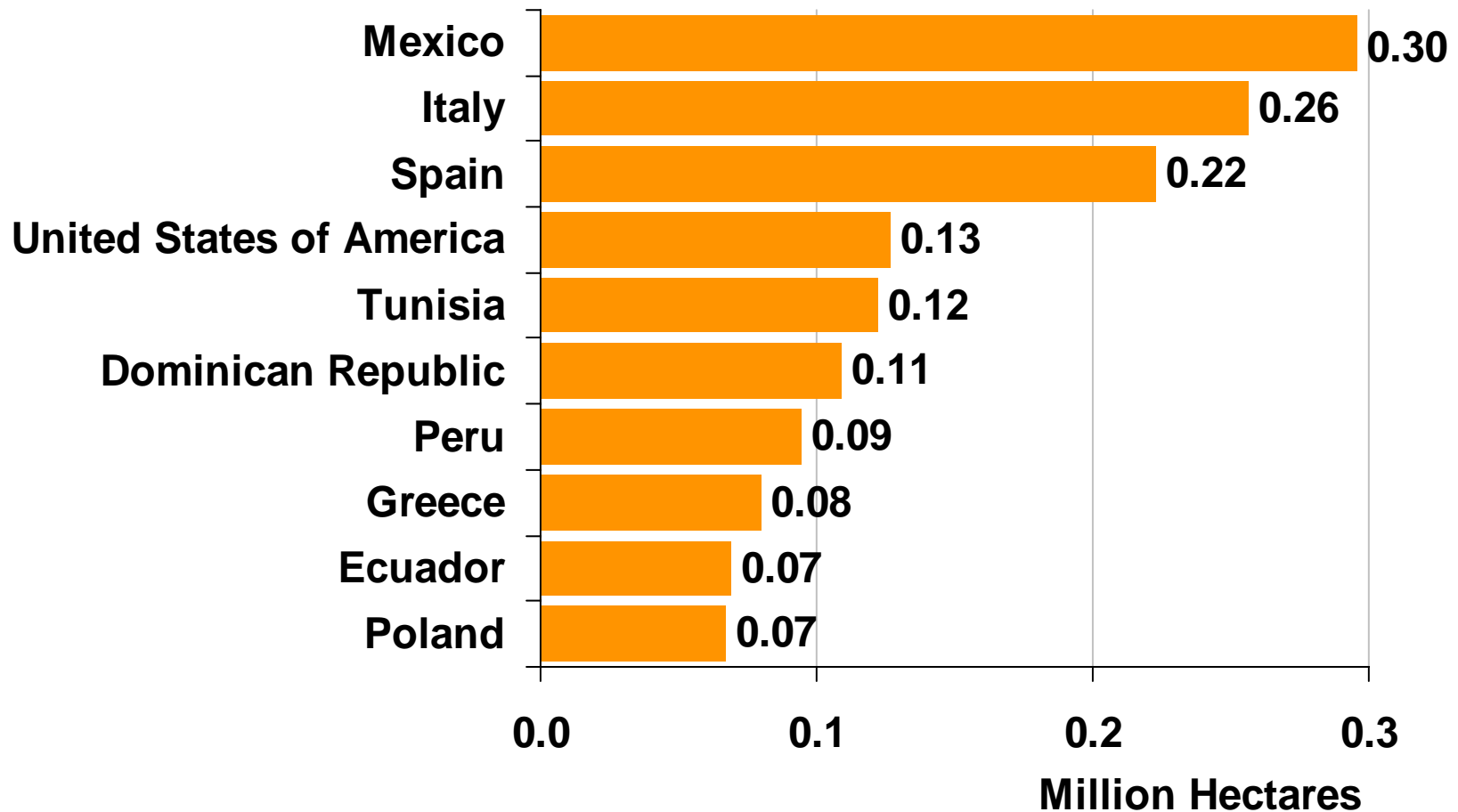


*Others: Hops, flowers and ornamentals, medicinal and aromatic plants, some root crops, tea

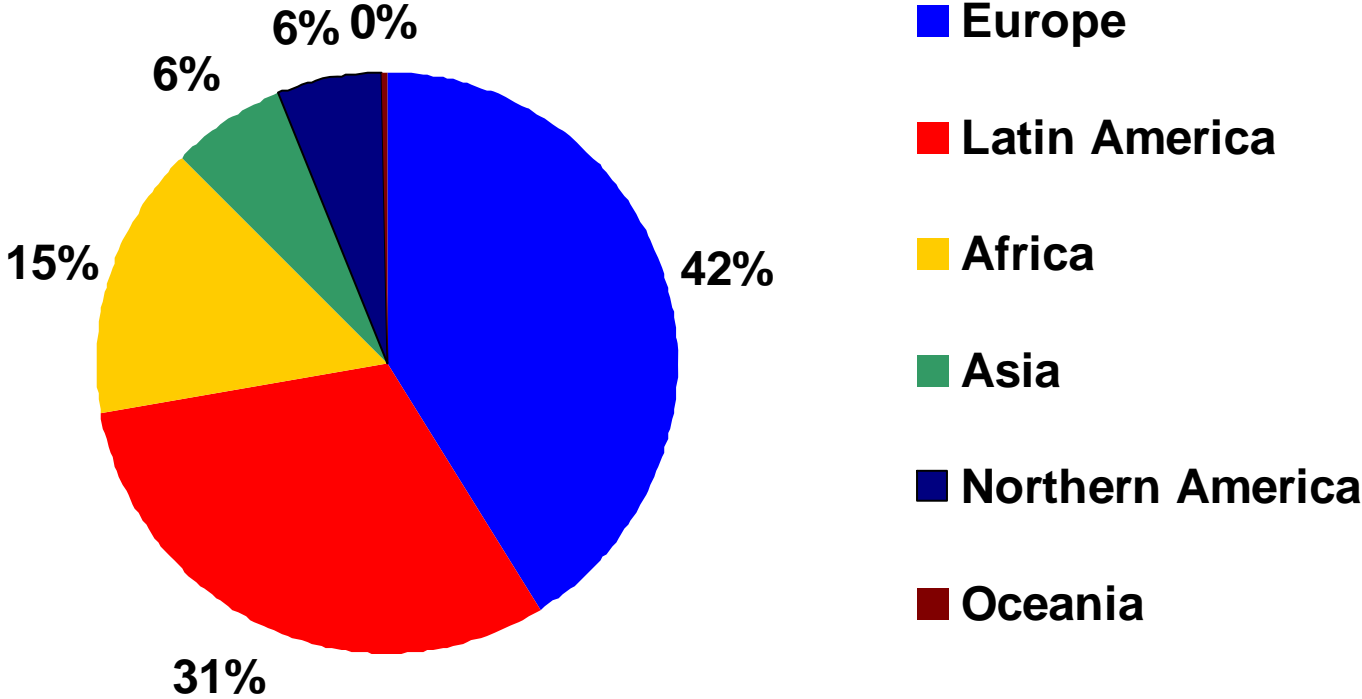
Horticulture: Growth of organically managed horticultural land 2004-2008



Horticultural crops: The ten countries with the largest organic horticultural areas 2008



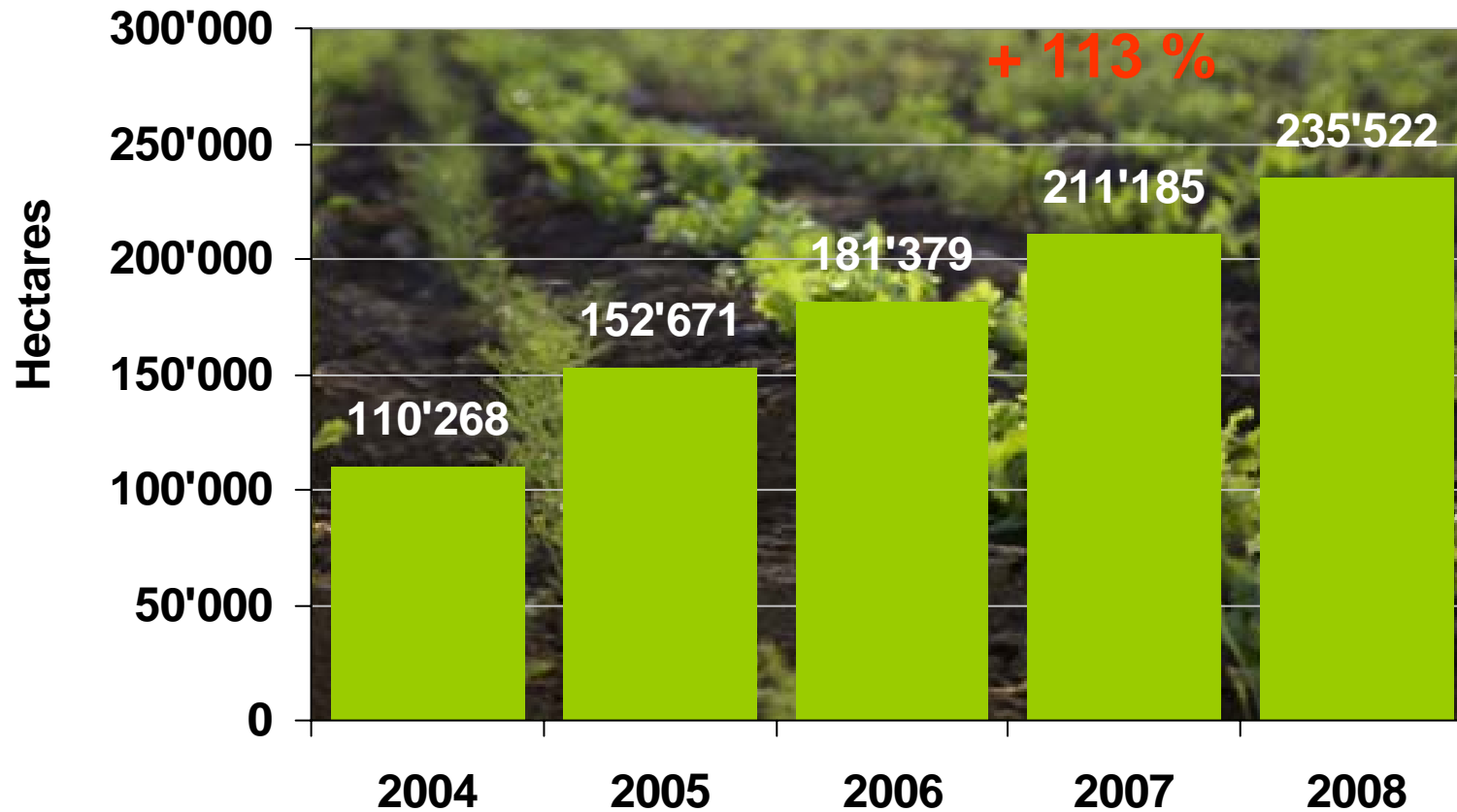
Horticulture: Distribution of organic horticultural land by region 2008 (total: 2.15 million hectares)



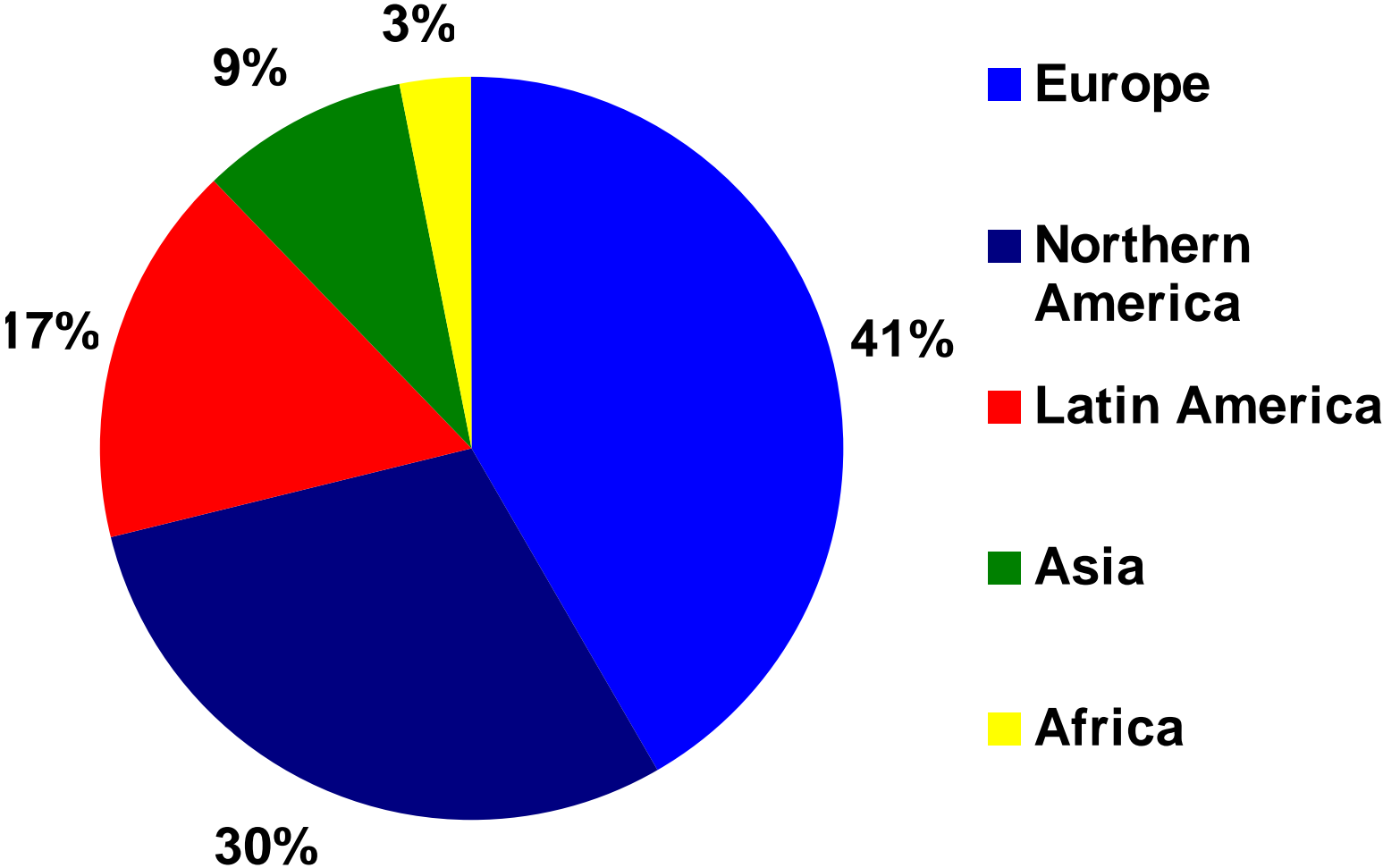
Organic vegetables

- For the development of the organic market, vegetables are a pioneer product, they are associated with health and freshness.
- In many countries, for organic vegetables the organic shares are higher than for overall organic production.
- At least 235'000 hectares of organic vegetables are grown.
- This represents of 0.4 percent of the global vegetable area of 61 million hectares.
- Of the world's ten largest vegetable producers land use/crop, data are missing for China and India, furthermore the Russian Federation and Bangladesh.
- It may therefore be assumed that the organic vegetable area is considerably higher.

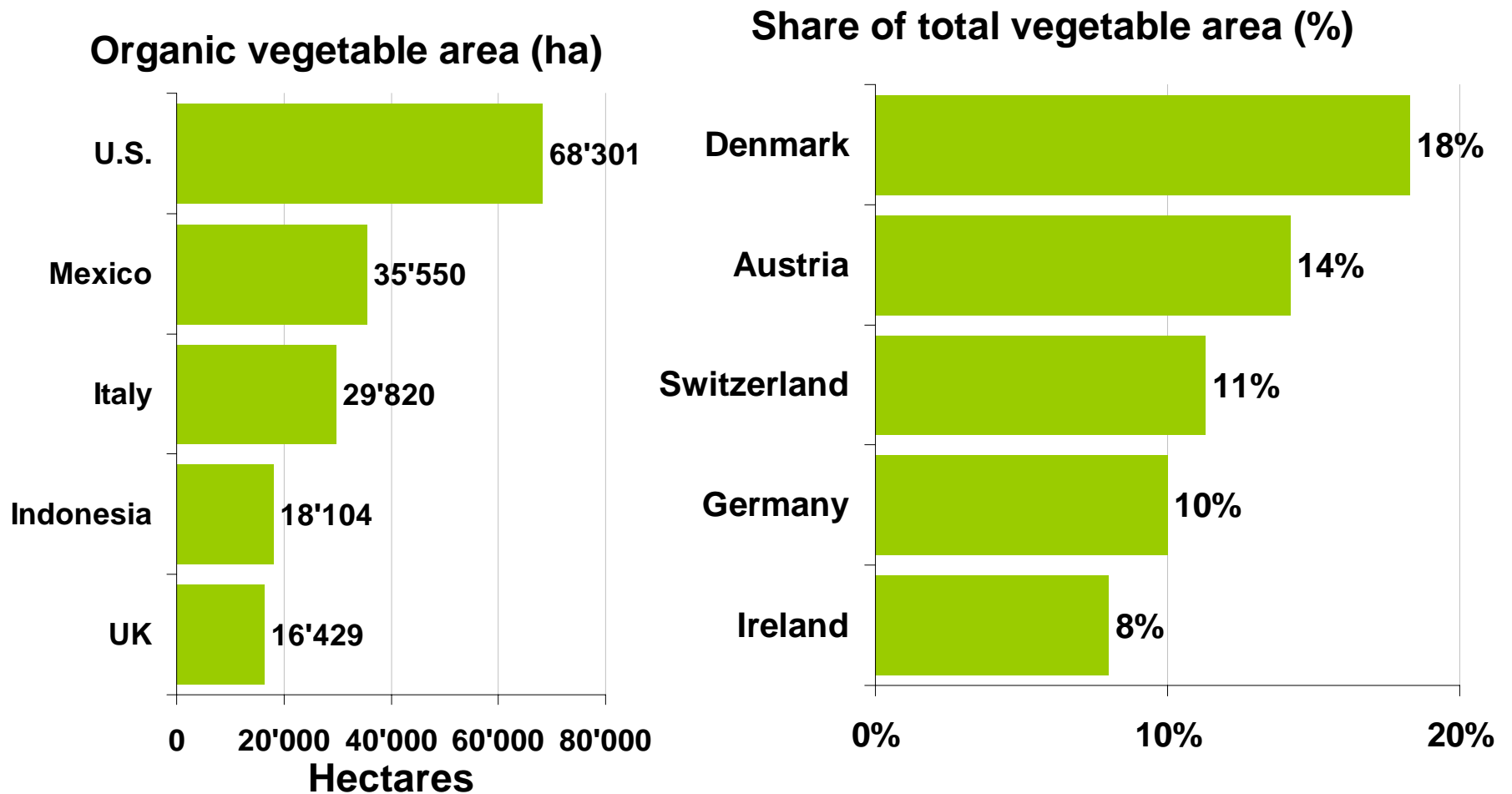
Organic vegetables: Development of the organic area 2004-2008 (excluding potatoes)



Organic vegetables: Regional distribution of the organic vegetable area 2008



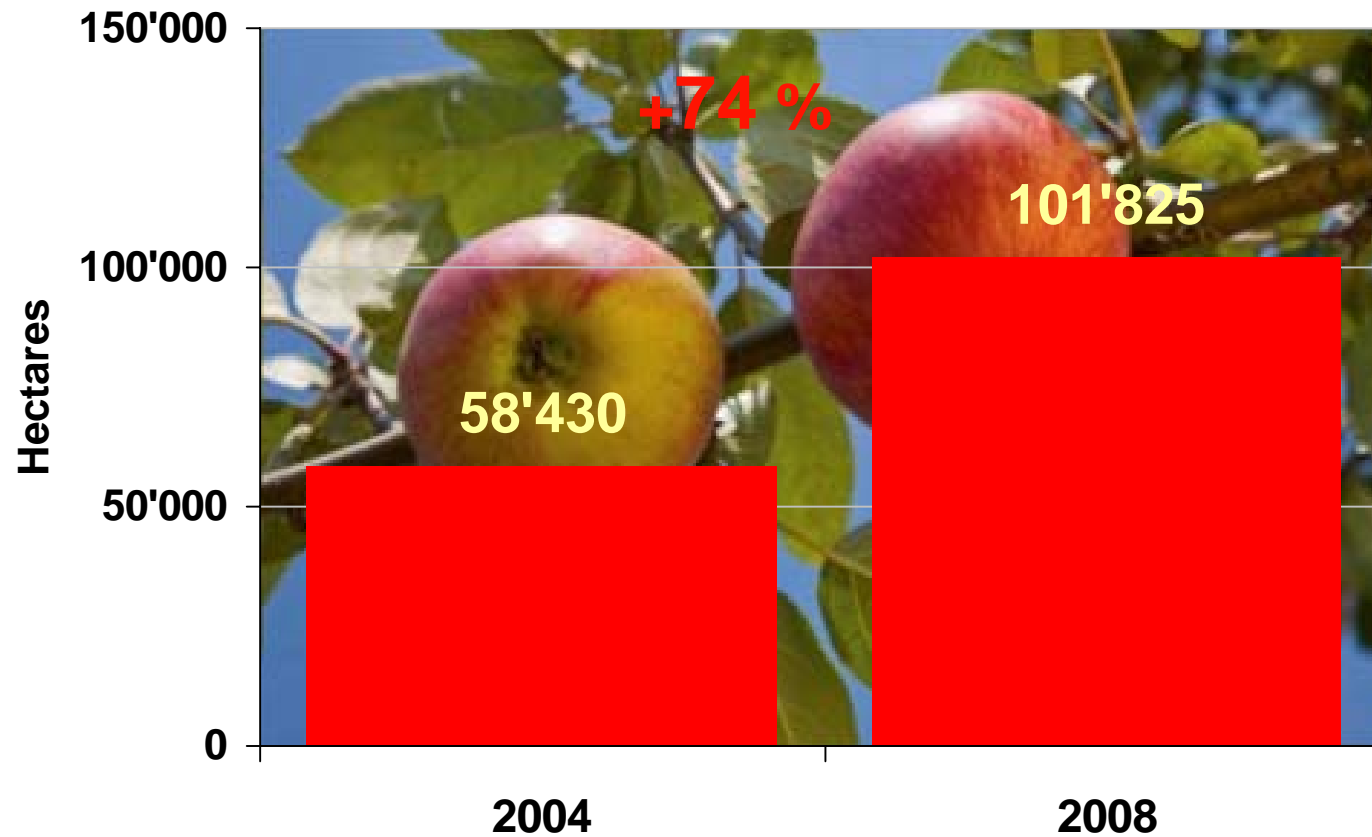
Organic vegetables: The five countries with the largest areas and shares 2008



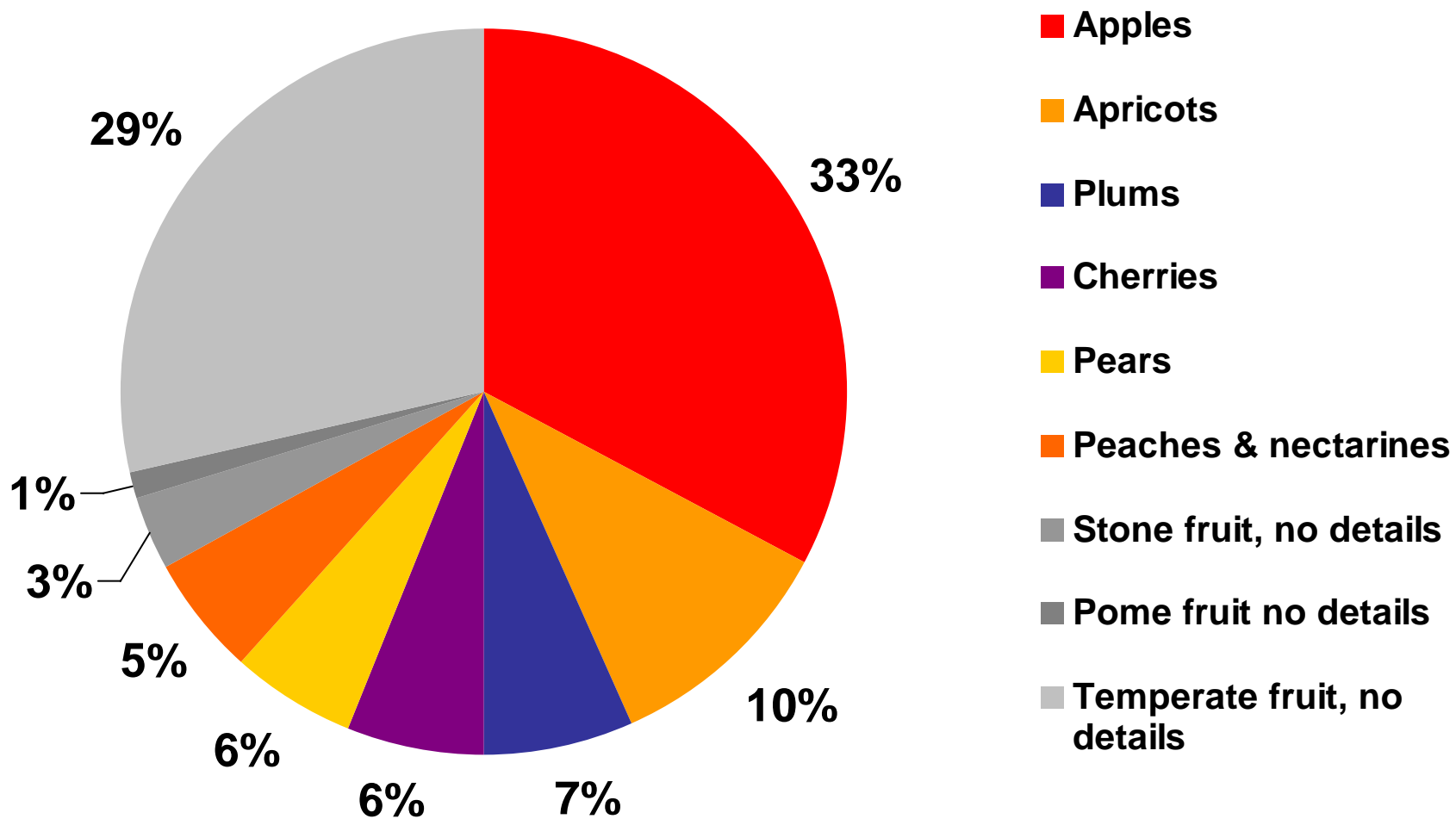
Organic temperate fruits

- The area of organic temperate fruits includes pome fruit and stone fruit.
- At least 101,000 hectares of temperate fruit are grown organically worldwide.
- This constitutes 0.9 percent of the world temperate fruit area of 34 million hectares (FAOSTAT, data 2007).
- As no crop details were available for some of the world's leading temperate fruit producers - China, Russia, and India - it can be assumed that the world figures for areas under organic temperate fruit are higher.

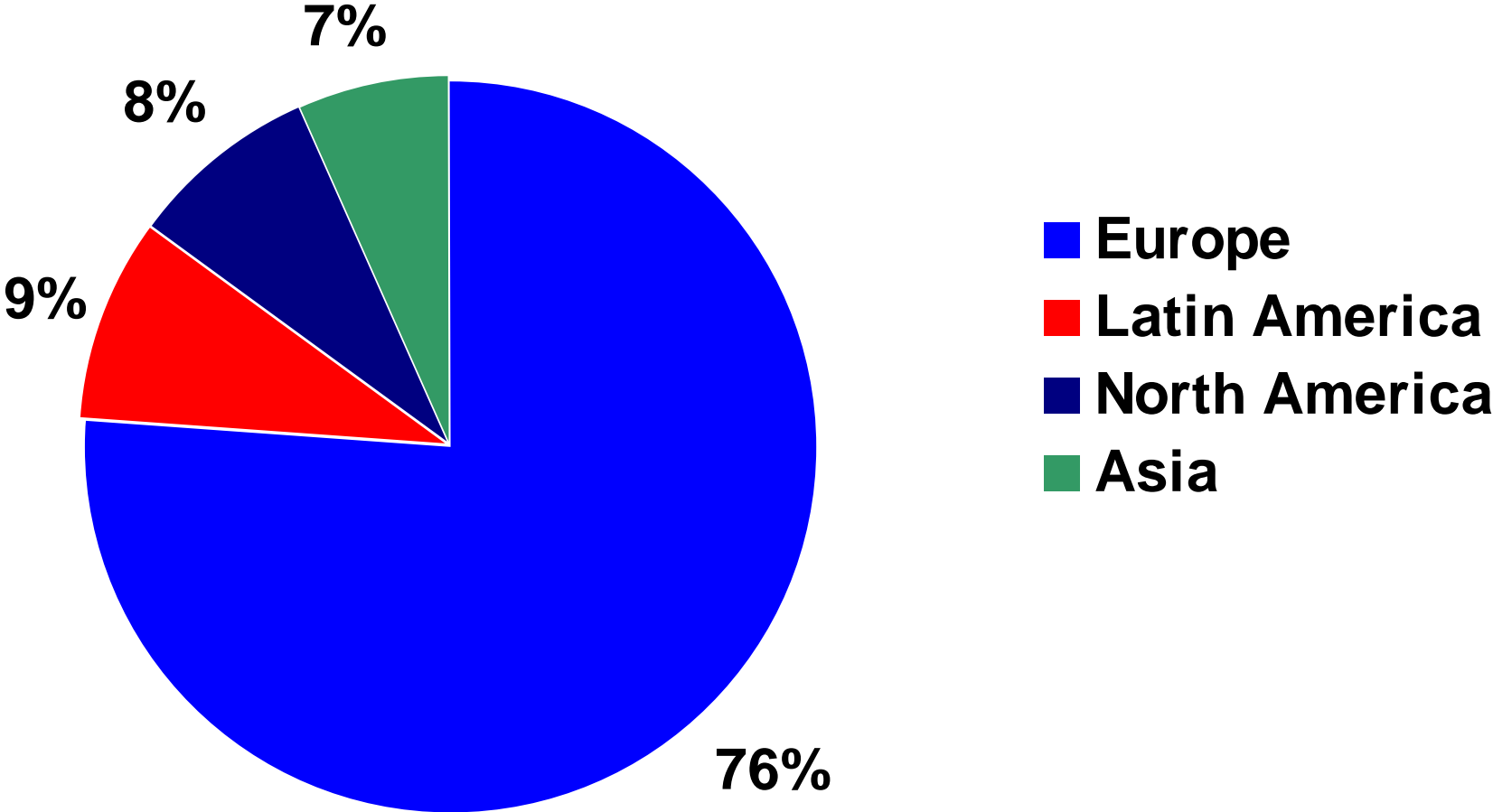
Organic temperate fruit: Growth of organically managed land 2004-2008



Organic temperate fruits 2008 (total: 101'000 hectares)

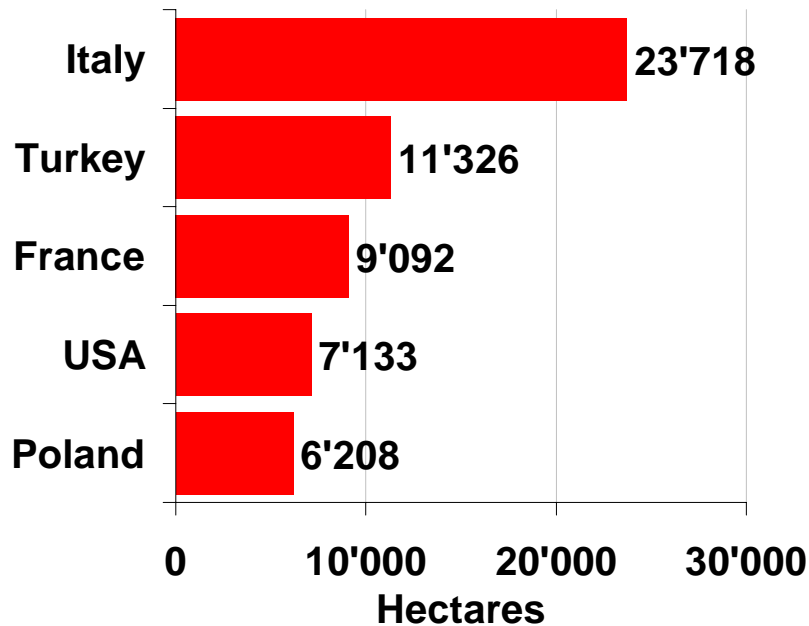


Organic temperate fruits: Regional distribution 2008

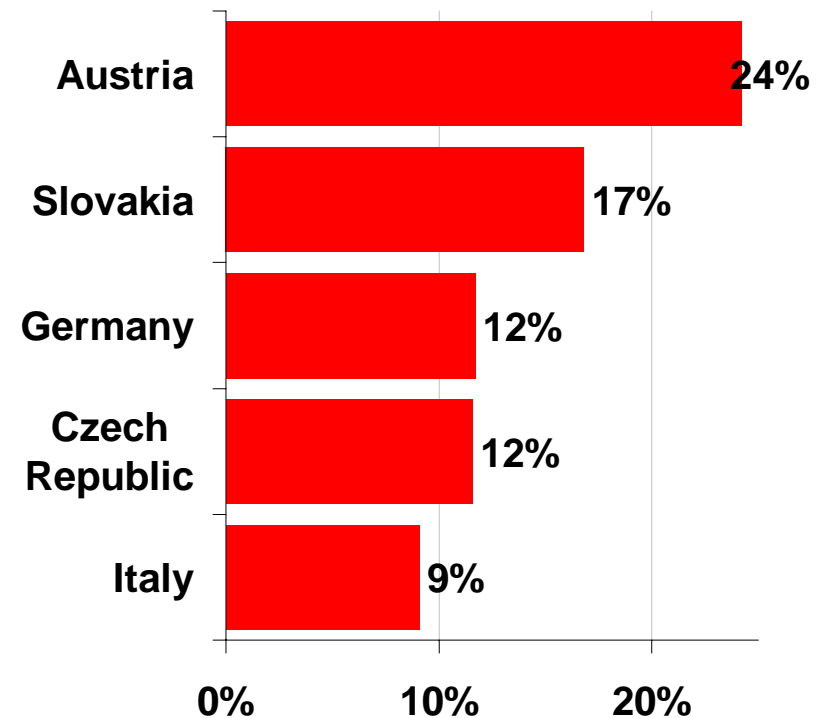


Organic temperate fruit: The five countries with the largest areas and shares 2008

Organic temperate fruit area (ha)



Share of total temperate fruit area (%)



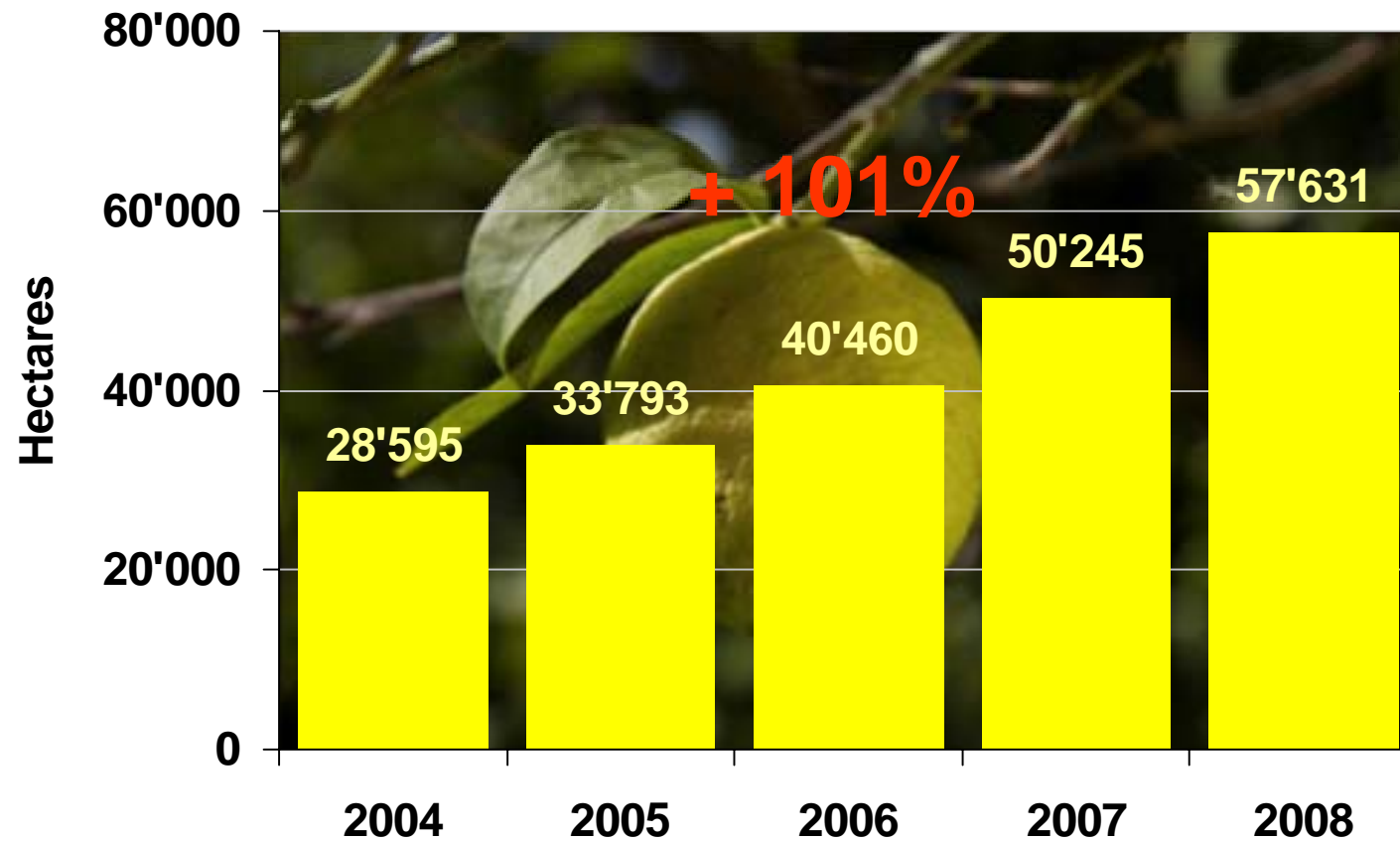
Organic citrus and tropical fruit: Highly appreciated by consumers

- Organic banana is a major organic fruit and well established in production and on the market. Citrus is well developed, too, but clearly behind bananas. For others, the market is still limited.
- The potential for market growth of organic citrus and tropical fruit is high. Exotic products grow faster in many countries than the overall organic products.

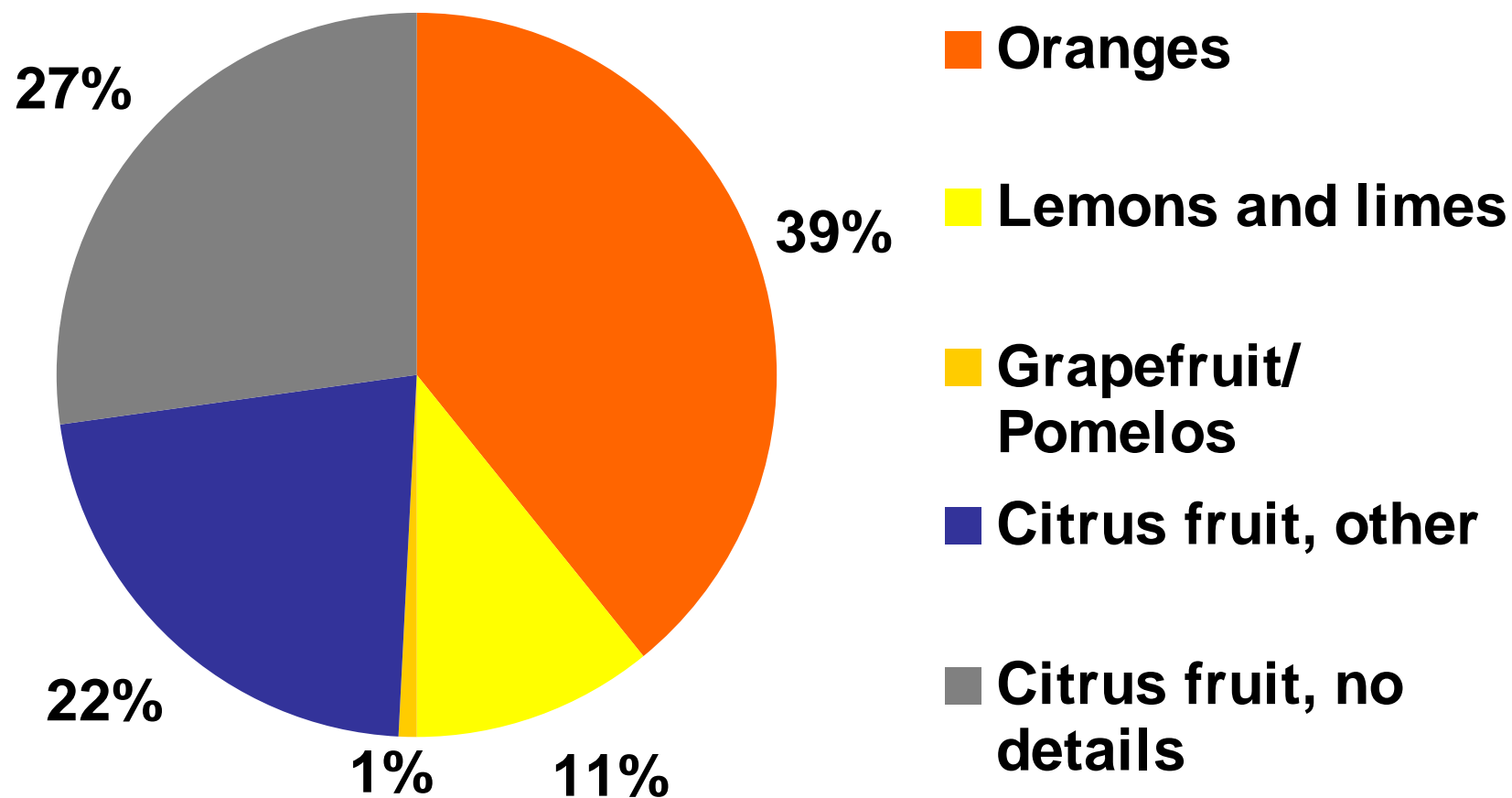
Organic citrus fruit

- At least 57,700 hectares of citrus fruit are grown organically worldwide.
- This constitutes 0.7 percent of the world's citrus area of 8.3 million hectares (FAOSTAT, data 2007).
- As no crop details were available for some of the world's leading citrus producers like China and Brazil it can be assumed that the world figures for areas under organic citrus are higher.

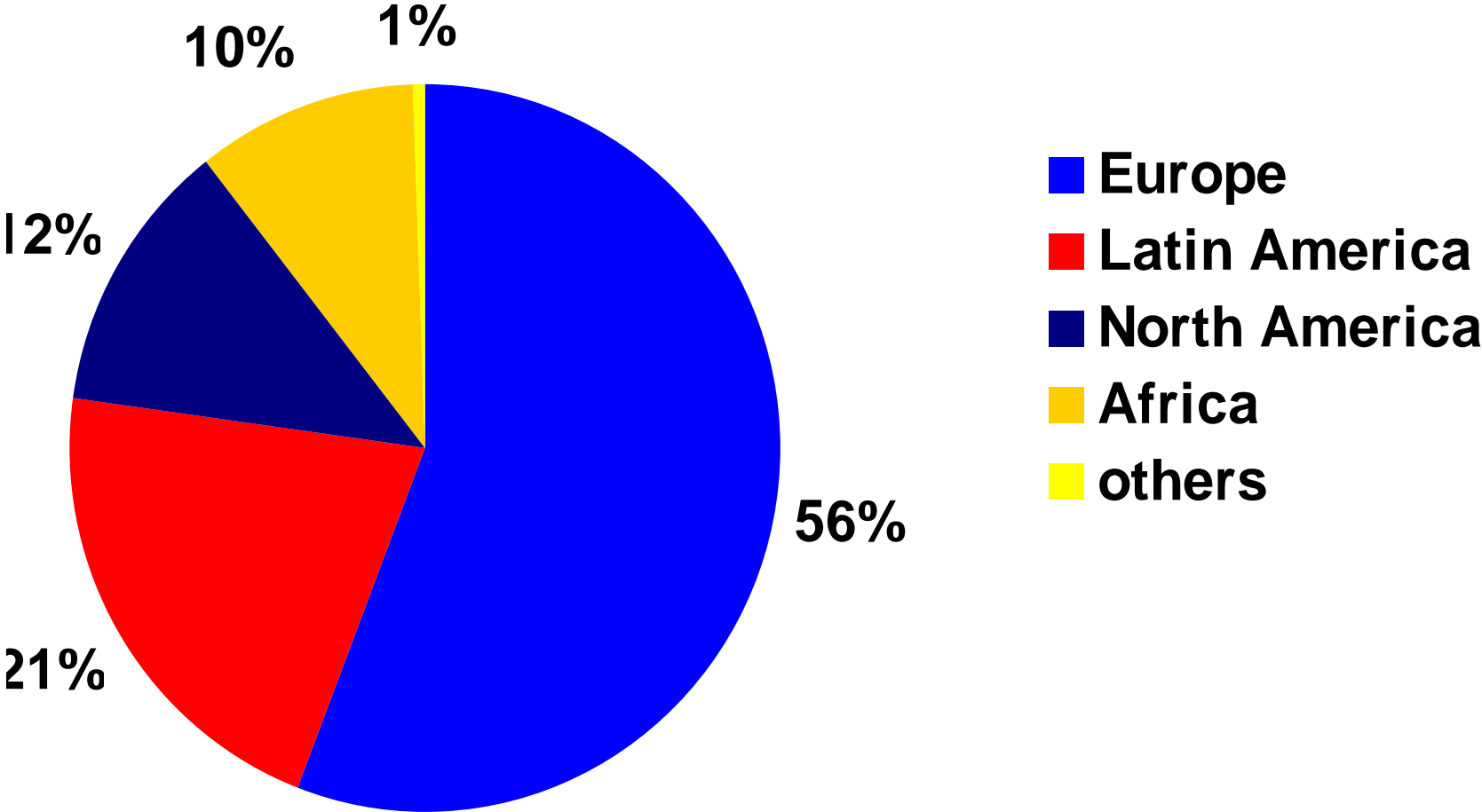
Organic citrus fruit: Growth of the organically managed land 2004-2008



Organic citrus fruits grown 2008 (Total: 58'000 hectares)

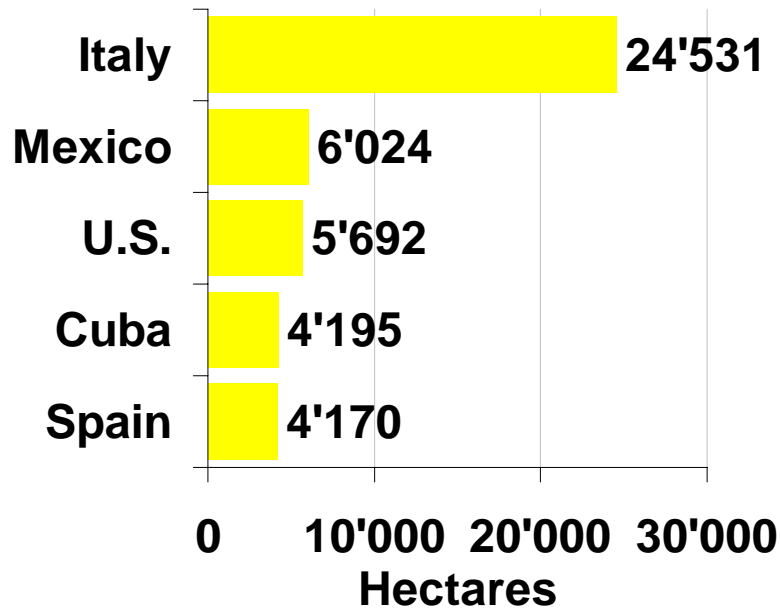


Organic citrus fruit: Regional distribution of organic citrus area 2008

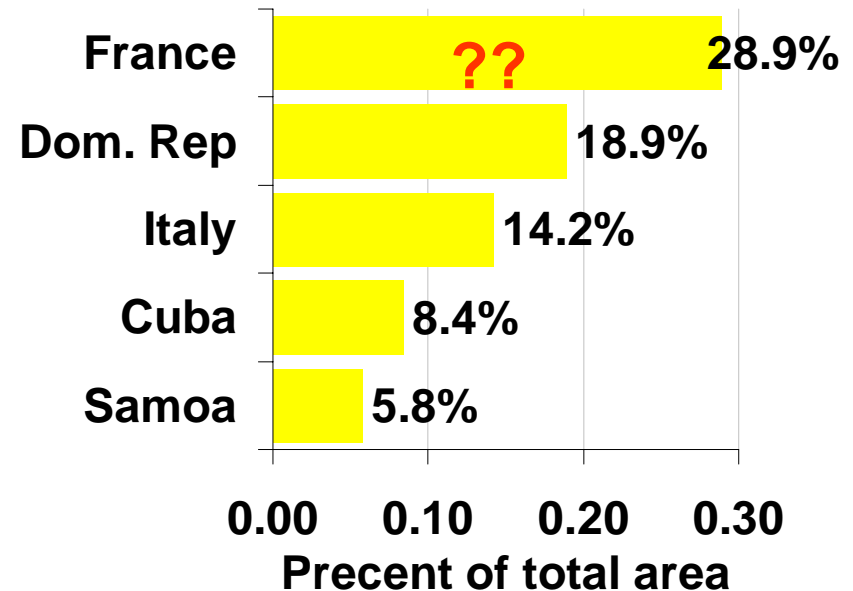


Organic citrus fruit: The five countries with the largest areas and shares 2008

Organic citrus area (ha)



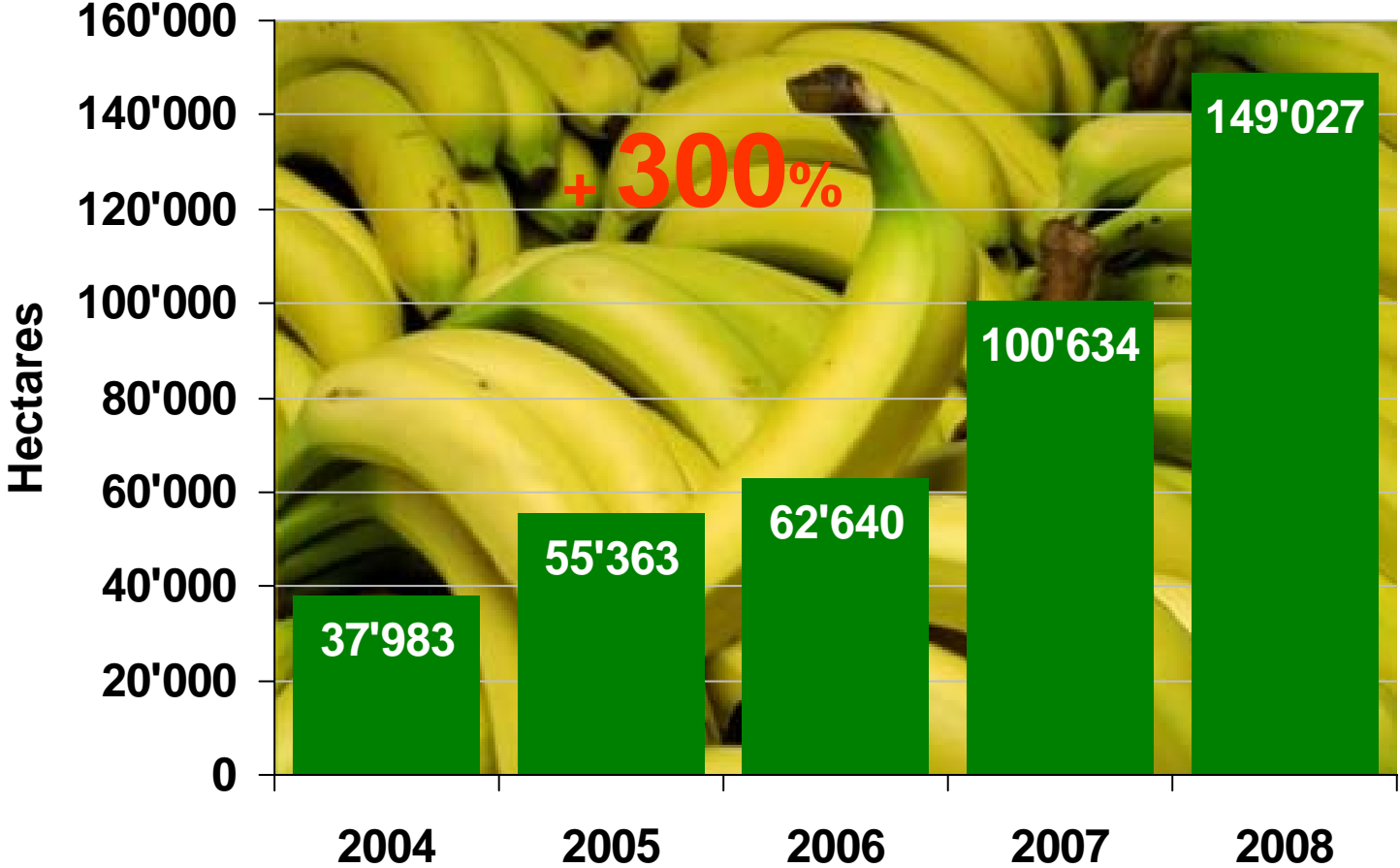
Share of total citrus area (%)



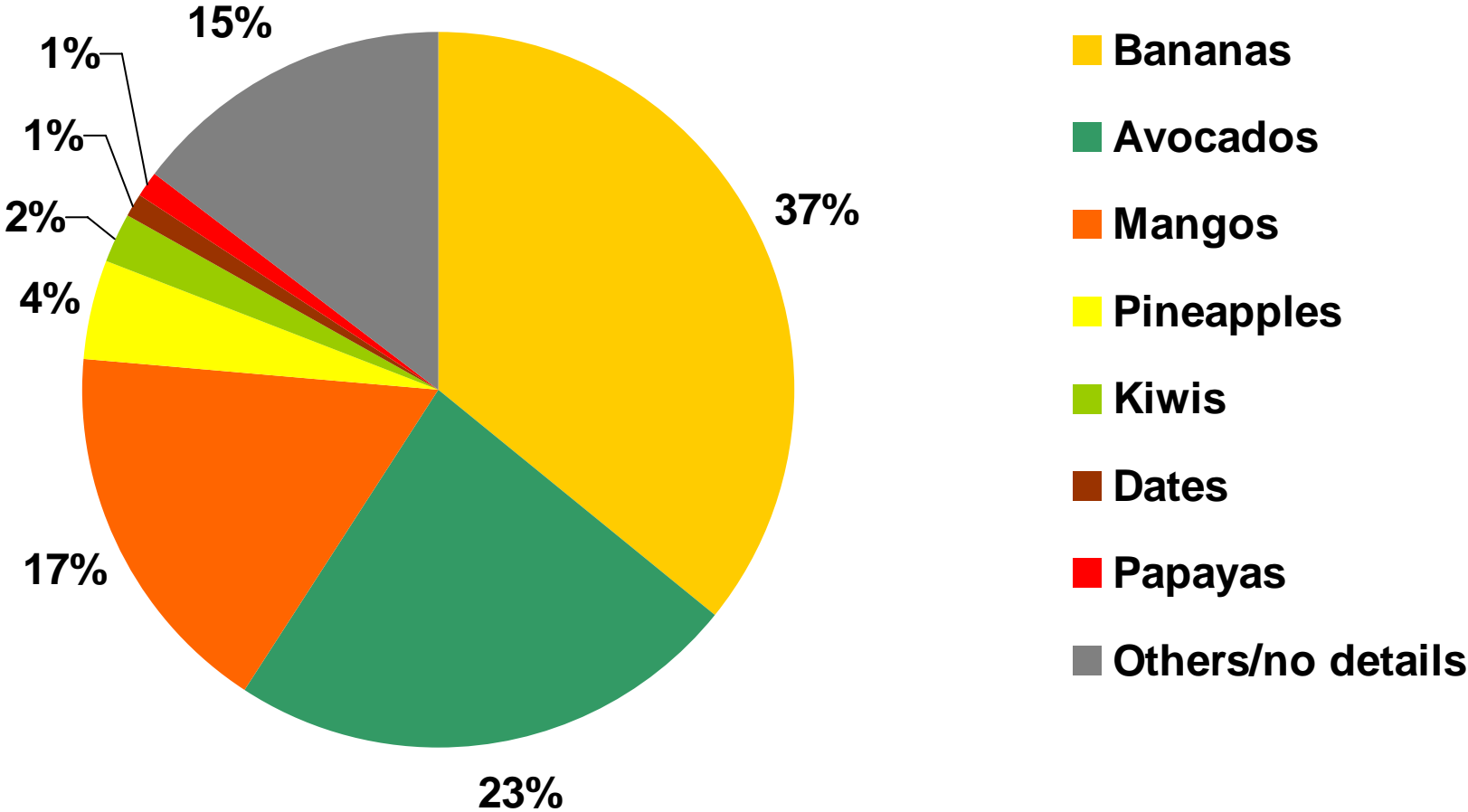
Organic tropical and subtropical fruit

- At least 150'000 hectares of tropical and subtropical fruits are grown organically.
- This constitutes 0.7 percent of the world's total area for tropical and subtropical fruits of 22.3 million hectares.
- The world's largest overall growers are India, China, Uganda, and Brazil – unfortunately for these countries no data on organic land use are available, even though they all have large areas of organic agricultural land.
- It may therefore be assumed that the area for organic tropical and subtropical fruit is higher than 150'000 hectares.

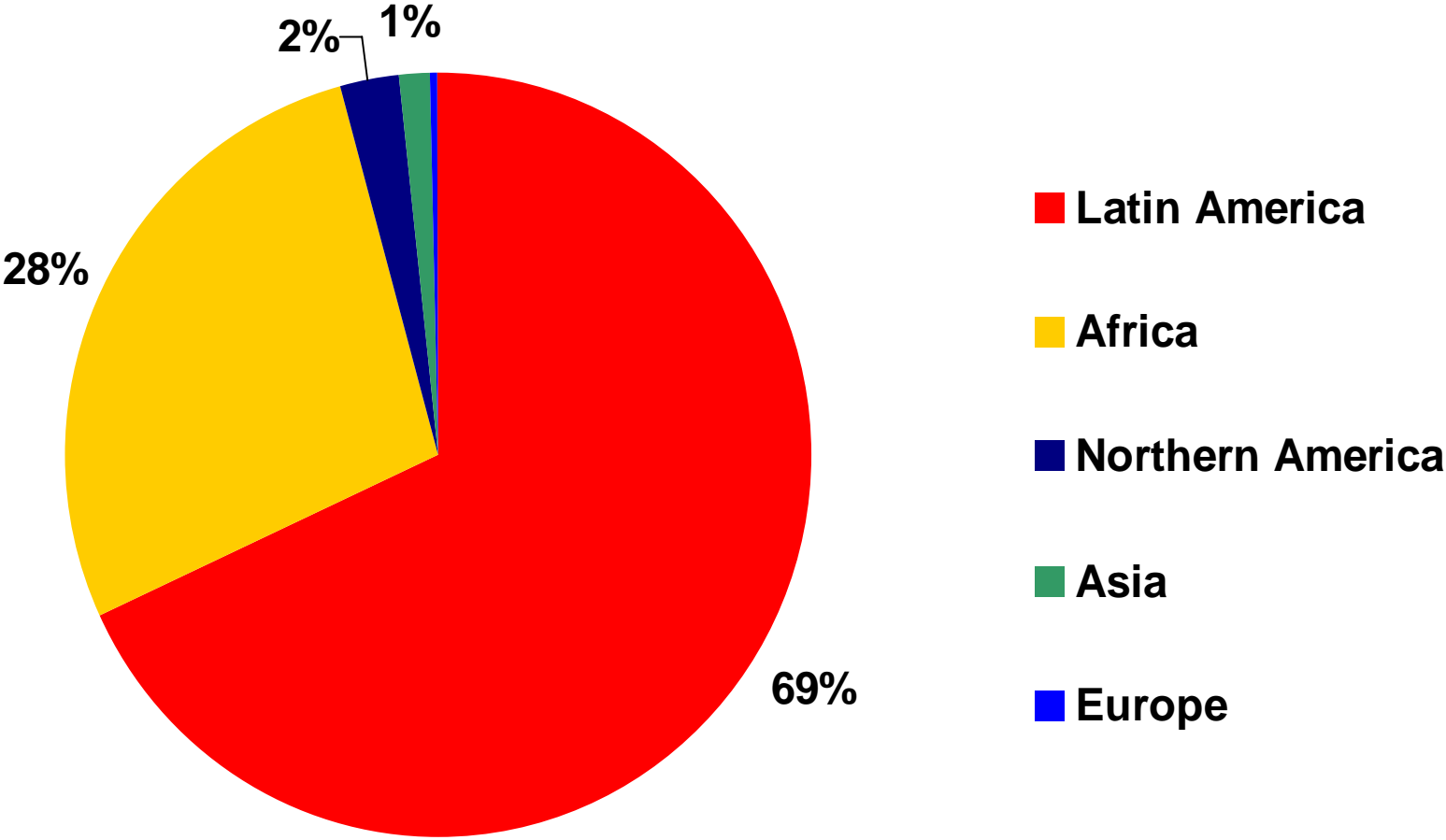
Organic tropical and subtropical fruits: Growth of the organic land 2004-2008



Organic tropical and subtropical fruit: Crop pattern 2008 (total: 150'000 hectares)

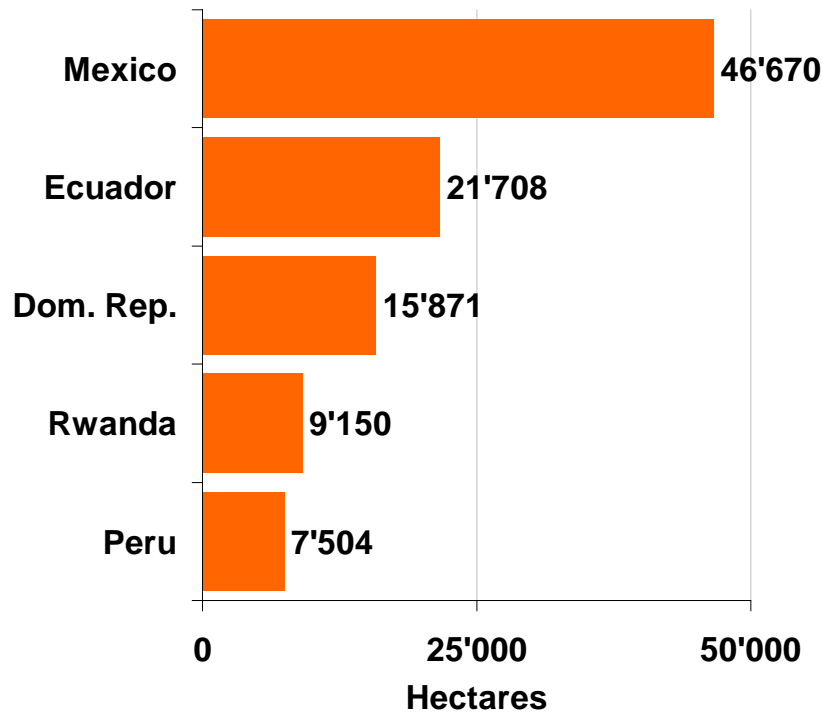


Organic tropical and subtropical fruit: Regional distribution of organically managed area 2008

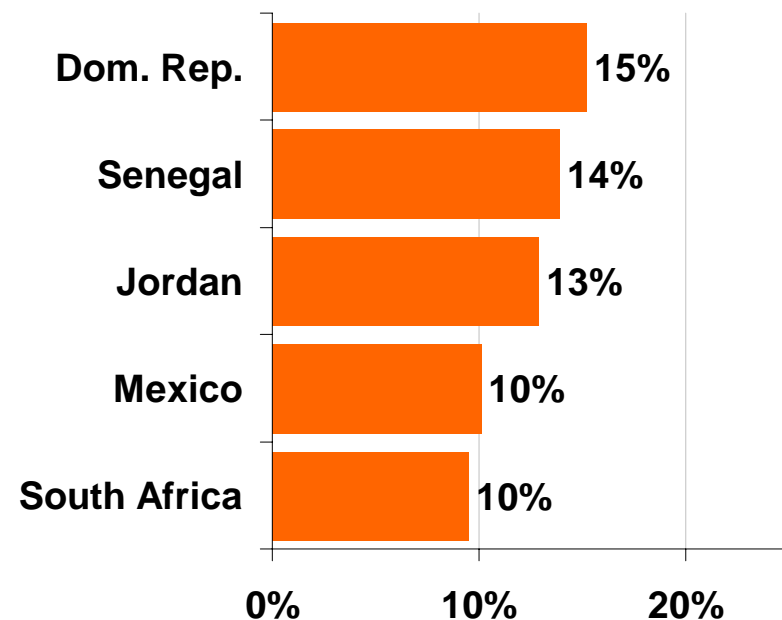


Organic tropical and subtropical fruits: The five countries with largest areas and shares 2008

Organic (sub) tropical fruit area (ha)

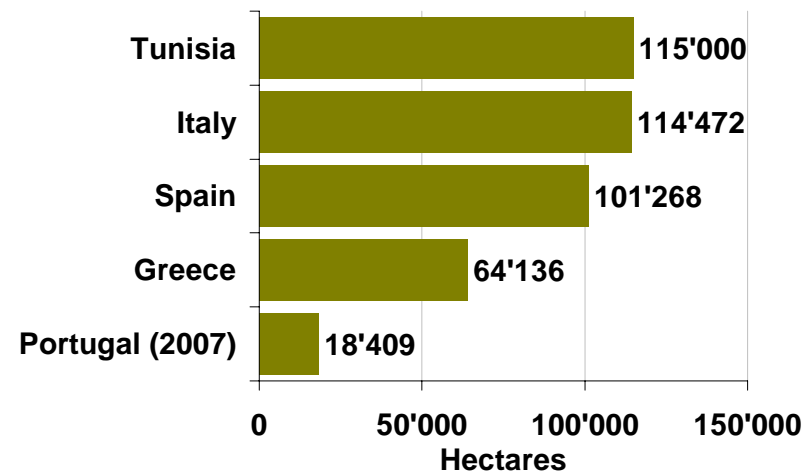
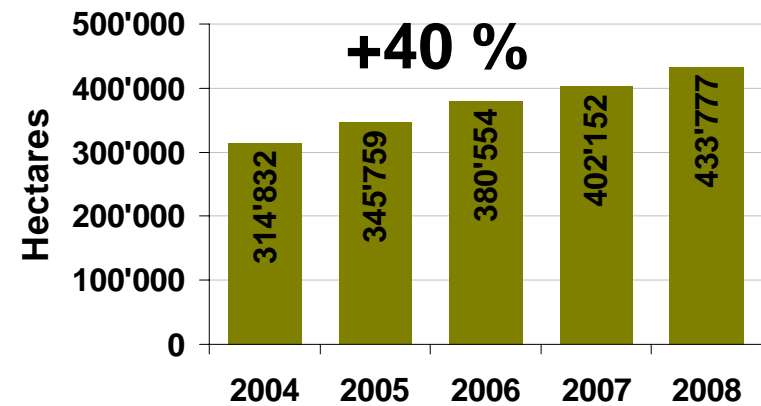


Share of total (sub)tropical fruit area (%)



Organic olives

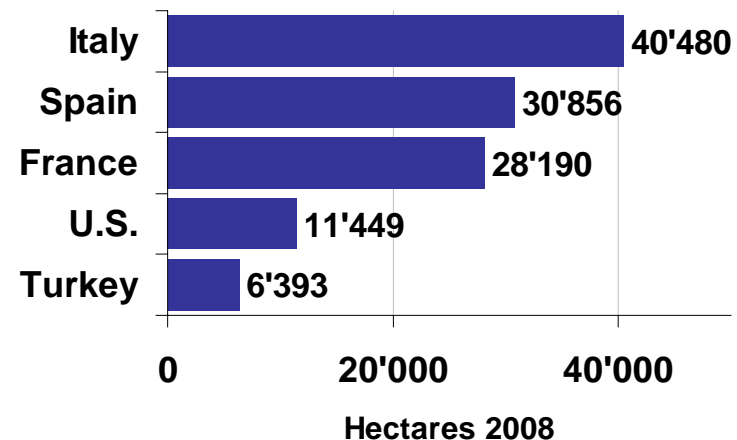
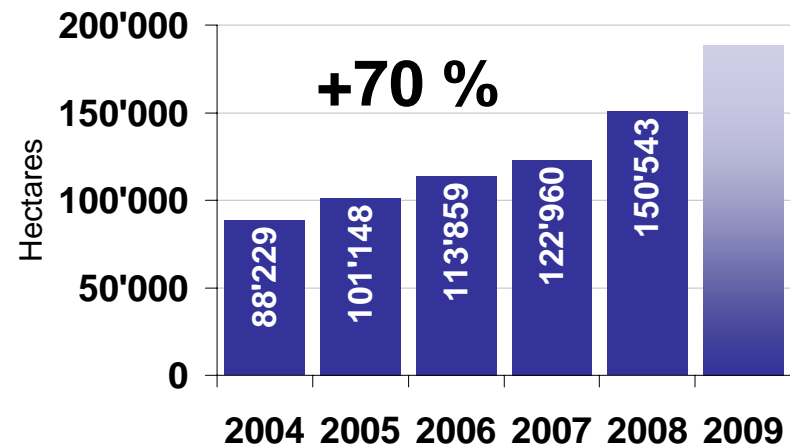
- More than 430'000 hectares of organic olives were grown in 2008.
- This is approximately 4.7 percent of the world's olive area (9.3 million hectares, FAOSTAT 2007).
- The main countries in which olives are grown are the countries of the Mediterranean, with Spain by far the largest grower; Tunisia, Italy, Greece, and Turkey also important producers.
- Although the same countries are important in organic production, the sequence is somewhat different. Tunisia has the largest area under organic olives, with Italy and Spain close behind.
- The production of olives has to some degree been subsidy driven (EU), as conversion of extensively managed olive groves is easy.



Source: FiBL and IFOAM Survey 2010, shares calculated with FAOSTAT data

Organic grapes

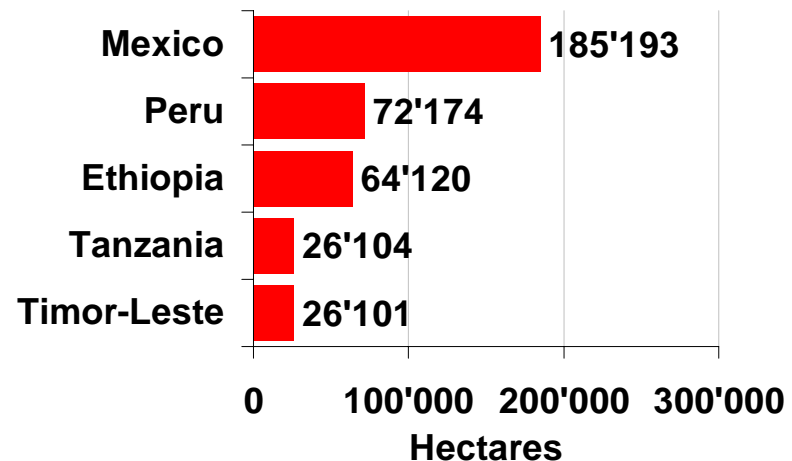
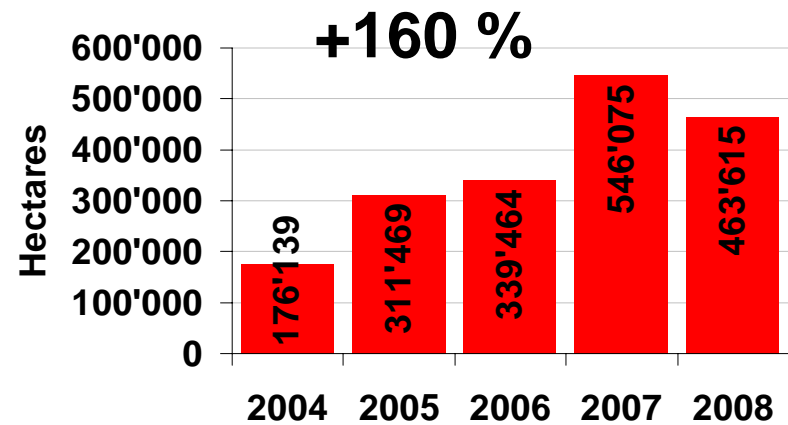
- Almost 150'000 hectares of organic grapes were grown in 2008.
- This is approximately 2.1 percent of the world's total harvested grape area (7.3 million hectares, FAOSTAT, data 2007).
- The main countries in which grapes are grown are the countries of the Mediterranean, with Italy being the largest grower, followed by Italy and France 2008; since 2009 Spain has the largest grape area.
- The highest percentage for organic grapes is in Greece and Italy (both 6.3 percent), followed by Austria 5.3 percent).
- More than three quarters of the organic grape area are in Europe.



Source: FiBL and IFOAM Survey 2010, shares calculated with FAOSTAT data

Organic coffee

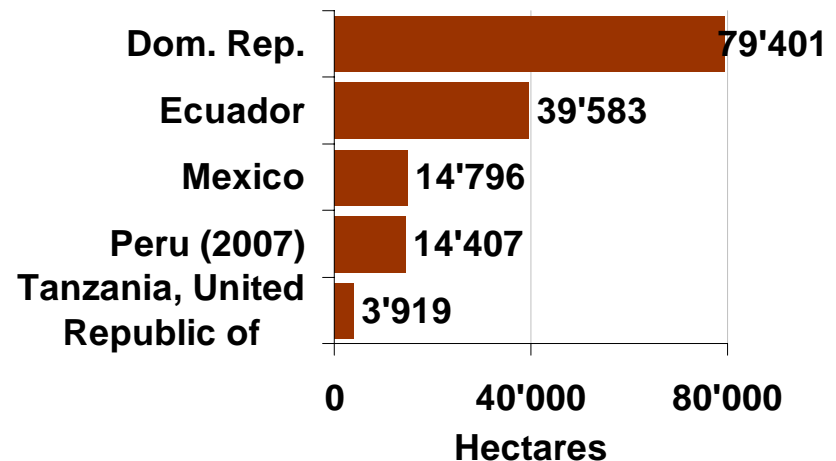
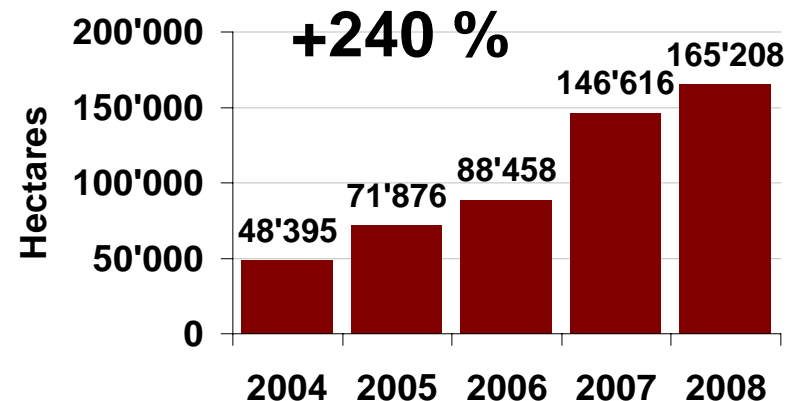
- Organic coffee area in 2008: At least 460'000 hectares
- This constitutes 4.5 percent of the world's harvested coffee area of 10.4 million hectares (FAOSTAT data 2007).
- The largest organic coffee areas are in Mexico, Peru, and Ethiopia.
- Data on the organic area were not available for all major coffee-producing countries (the leading producers are Brazil, Indonesia, Ivory Coast, Mexico, Colombia, and Vietnam).
- Almost three quarters of the world's organic coffee area are in Latin America.



Source: FiBL and IFOAM Survey 2010, shares calculated with FAOSTAT data

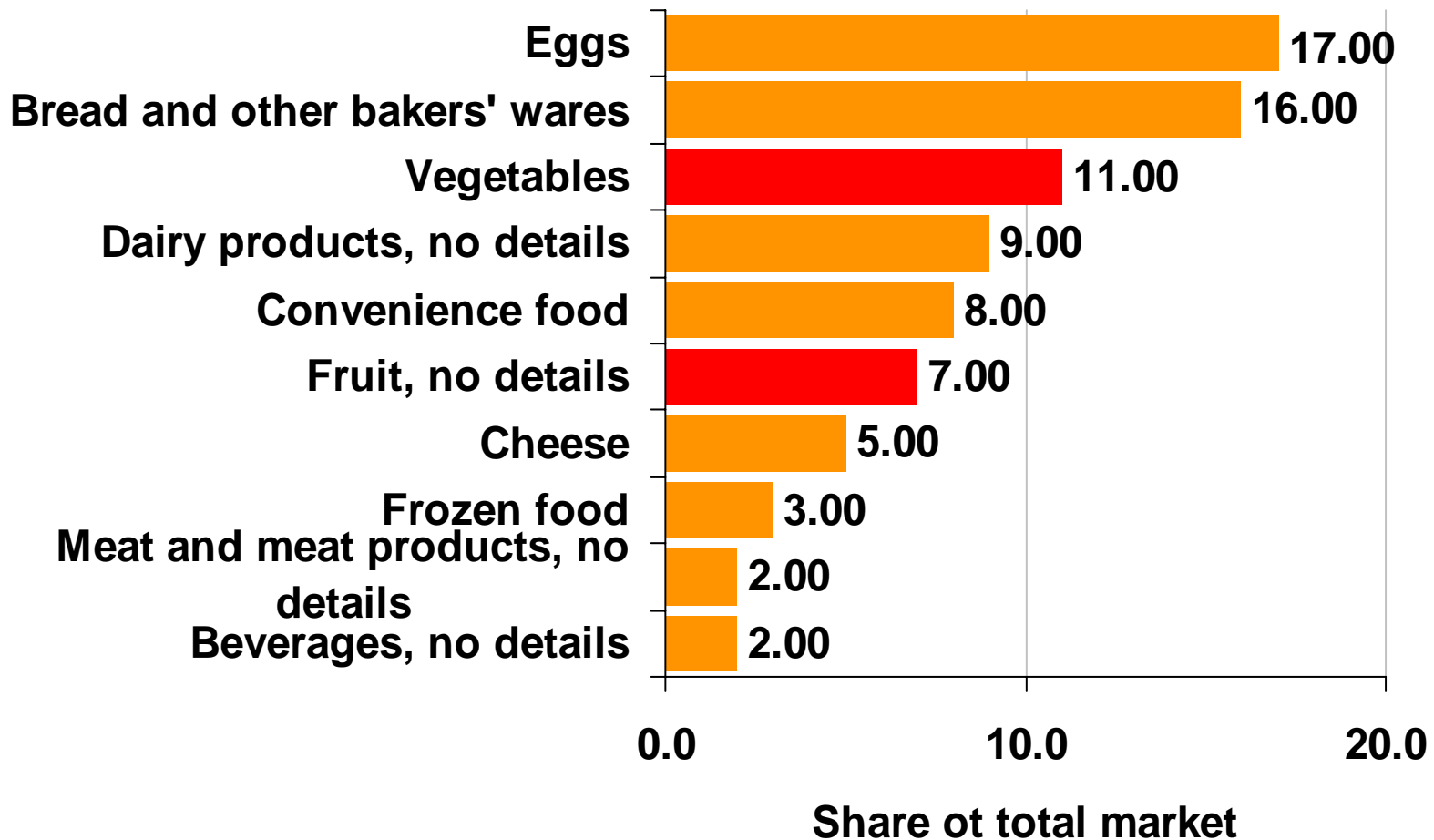
Organic cocoa beans

- Organic cocoa area (including conversion area) in 2008: At least 165'000 hectares
- = 2 percent of the world's total cocoa area of 8.3 million hectares (FAOSTAT)
- The world's leading cocoa producers are Ivory Coast, Ghana, Nigeria, Indonesia, and Brazil, but data on the organic cocoa area were not available for all these countries.
- The countries with the largest organic cocoa bean area are the Dominican Republic, Ecuador, and Mexico.
- Ninety-percent of the world's organic cocoa bean area is in Latin America.



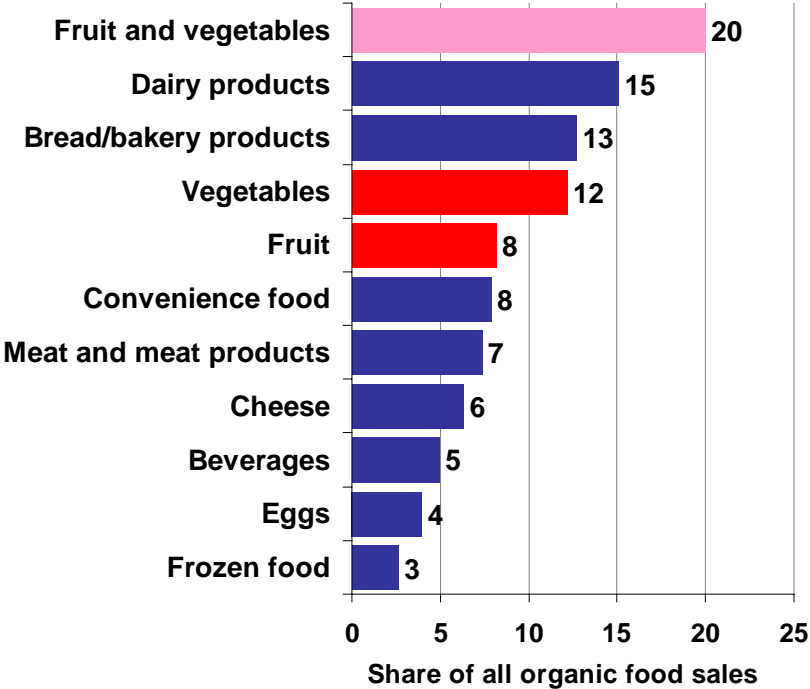
Source: FiBL and IFOAM Survey 2010, shares calculated with FAOSTAT data

Switzerland: Shares of the total market for selected organic product groups 2009

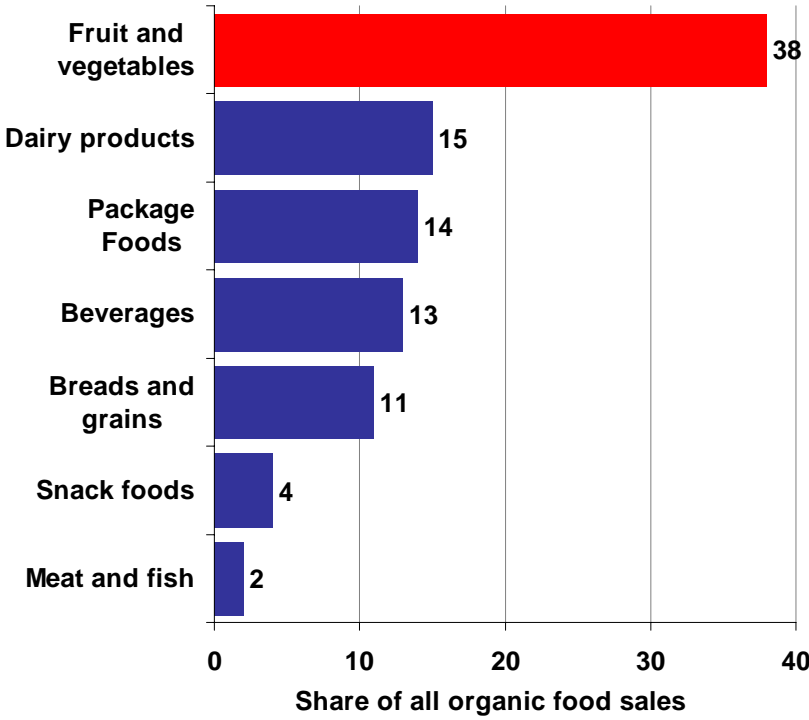


Switzerland and USA: Importance of selected product groups of the overall turnover with organic food 2009

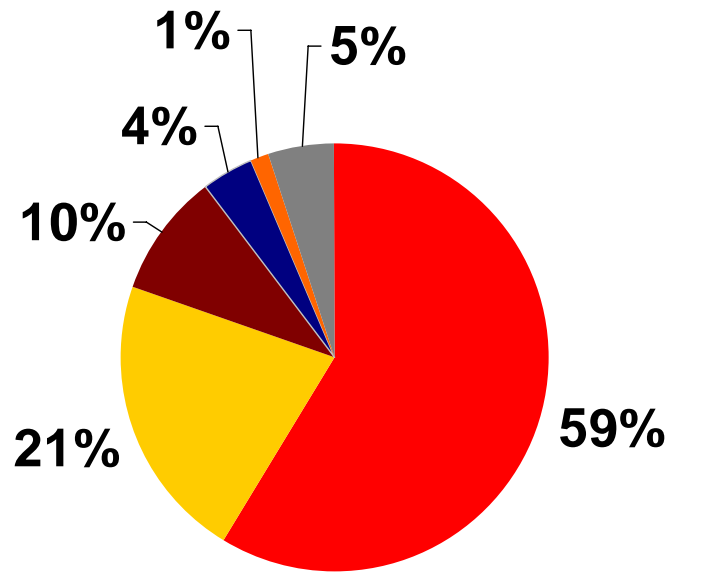
Switzerland



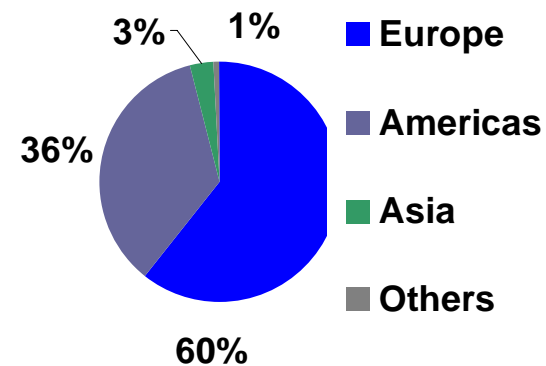
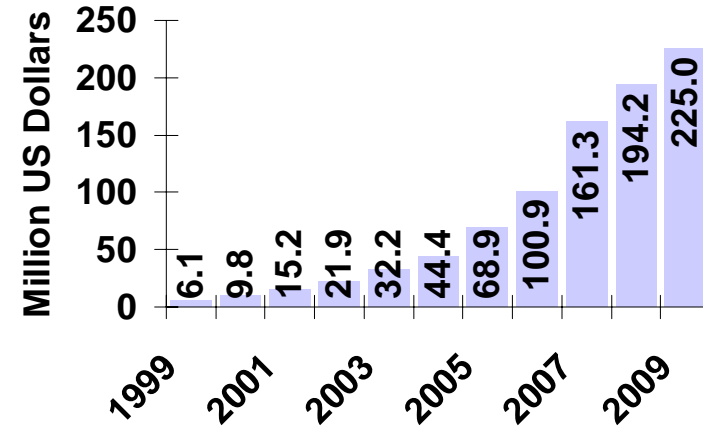
USA



Organic Exports from Peru: Key products 2008 (export volume), growth of exports, key destinations for export products 2008



■ Coffee ■ Banana ■ Cocoa
■ Cotton ■ Mango ■ Others



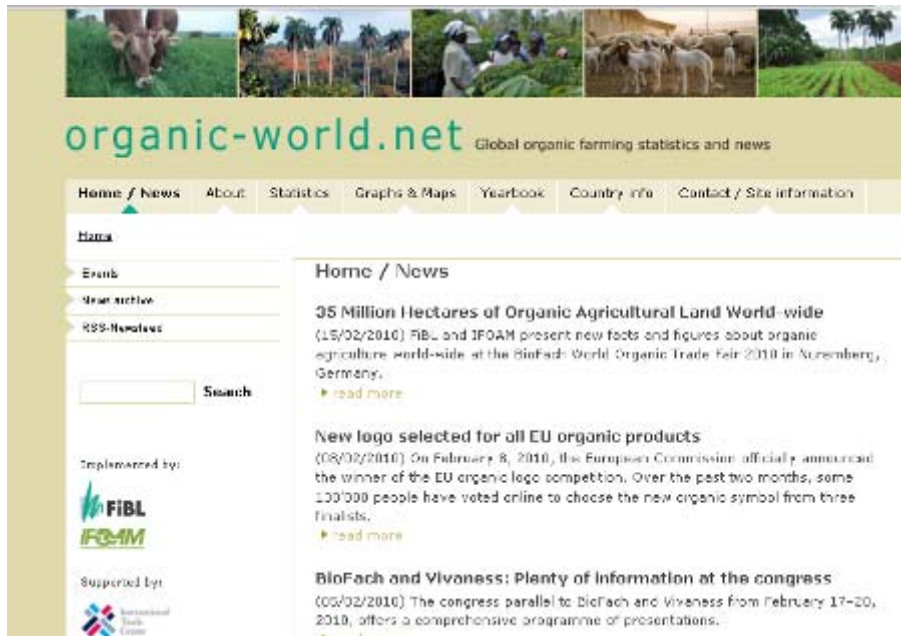
Conclusions

- Horticultural crops are among the most important products in the organic market place, particularly vegetables and fruit.
- In many countries the share of land used for horticultural products is higher than the overall organic share.
- Growth of the organic areas for horticultural crops has been higher than for the organic agricultural land since 2004, and growth is expected to continue in the future.
- For many developing countries the exports of organic horticultural crops are increasingly important.
- However, there are a number of production constraints like insect, disease, and weed control challenges, but with more research and development progress can be expected.
- It is important to improve data availability in the area of production, market and trade, so that developments can be better monitored - important for decision makers and market actors.

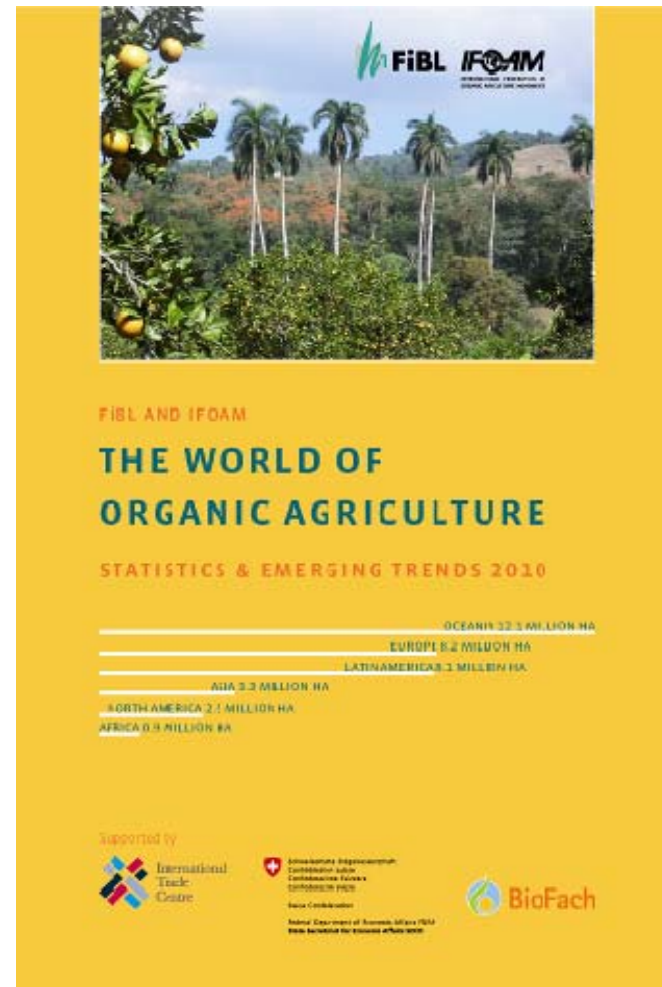
Acknowledgements

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 - Martin Lichtenhahn, FiBL, Frick, Switzerland
 - Franco Weibel, FiBL, Frick, Switzerland

The World of Organic Agriculture 2010



➤ <http://www.organic-world.net/statistics-crops.html>



Key horticultural crop groups: Growth and shares

Land use/crop type	Global growth 2004-2008	Global share 2008	Highest shares 2008
Organic agricultural land	18 %	0.8 %	37 % Falkland Islands
Horticulture	120%	1 %	27.6 %: East Timor
Vegetables	113 %	0.4 %	18 %: Denmark
Temperate fruit	74 %	0.7 %	24 % Austria
Tropical fruit	300 %	0.7%	15 % Dominican Republic
Citrus fruit	100 %	0.7 %	18.9 %: Dominican Republic
Grapes	70 %	2 %	6.3 %: Greece and Italy
Olives	40 %	4.6 %	16.3 % Argentina
Coffee	140 %	4.5 %	40.2 % Timor Leste
Cocoa beans	220%	2 %	

General notes on the data

- Term organic: Fully converted and in-conversion areas.
- Share of total agricultural land: based on FAOSTAT data.
- Countries: For countries and areas, FiBL and IFOAM used the Standard Country and Area Codes Classifications as defined by the United Nations Statistics division.

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www.fibl.org, www.organic-world.net

Sources

- FiBL and IFOAM (2010): Results of the Global Survey on Organic Agriculture 2010. The Organic World Homepage, FiBL, Frick, www.organic-world.net/statistics-world.html
- Granatstein, D., Kirby, E. und Willer, H. (2008) Current World Status of Organic Temperate Fruits. Paper presented at the Organic Fruit Conference, Vignola, Italy, June 16 and 17, 2008. www.orgprints.org/14664
- Granatstein, D., Kirby, E. and Willer, H. (2010): Organic Horticulture Expands Globally. Submitted
- Willer, H. (2010): Organic agriculture world-wide. Current statistics. p. 27-51. In: Willer, H. and Kilcher, L. (Eds.) (2010): The World of Organic Agriculture. Statistics and Emerging Trends 2010. FiBL, Frick and IFOAM, Bonn
- Willer, H. and Kilcher, L. (Eds.). (2010): The World of Organic Agriculture. Statistics and Emerging Trends 2010. IFOAM, Bonn and FiBL, Frick

Sources for country data mentioned in this presentation

- › Australia: AQIS
- › Argentina: SENASA
Brazil: Organics Brazil
- › China: CNCA
- › Ecuador: GTZ
- › Ethiopia: Data from certifiers
- › European Union: Eurostat
- › Falkland Islands: Ministry of Agriculture, Falkland Island
- › French Guiana: Agence Bio
- › India: APEDA
- › Indonesia: Indonesia Organic Alliance
- › Mexico: University of Chapingo
- › Peru: SENASA Peru
- › Ruanda: RHODA/UNCTAD
- › Switzerland: FiBL
- › Tunisia: Ministry of Agriculture
- › Uruguay: : DGSA/INIA
- › U.S.: USDA