

# **Questionnaire on organic fruit and berry production in Europe.**

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## **Background.**

On the EUFRIN meeting in Girona, Spain, November 1998 it was decided that one of the specific tasks for the meeting in Laimburg should be preparing a questionnaire for organic fruit production in Europe. In August 1999 we send out a questionnaire for all the EUFRIN participants. All 14 members have answered the questions.

## **Organic fruit production:**

The organic fruit production is biggest in Southern Europe and France (Table 1). In Greece the organic production has not become a trend yet. The organic grown area is probably biggest in Italy, but the information is not very accurate as the information is mixed with vegetable production. The biggest organic crops produced are olives, grapes and dry fruits (Table 1).

In central and Northern Europe the area grown with organic fruit and berries are less than 500 ha. per country. With Germany as an exception with nearly 1000 ha. Apples and strawberries are probably the most important crops here.

It is very difficult to know how big the production is because most of the production is for home sale or for direct sale on the market. However, the figures from Portugal and United Kingdom are very accurate.

Most countries give subsidies to the organic production, with Sweden as an exception. The normal amount of subsidy is between 400 to 850 Euro per ha. Per year. The Netherlands has the biggest subsidy with 11.344 Euro per ha per year the first 5 years (Table 2).

## **Guidelines and progress in production and research.**

Most countries have a national guideline or they use the guidelines published by the European Union (Table 2). When it comes to which products that are allowed against pest and diseases there are many different rules depending on the national regulations. Many countries are allowed to use most of the substances written on the EU-list. But especially in the Scandinavian countries only a few compounds are free to use. The most important difference is that in Norway and Denmark are not allowed to use any copper compounds to control diseases (Table 2). In Denmark copper has been banded for 5 years. This in combination with 3-4 year in a row with heavy apple scab infection has caused big problems for the growers. This is some of the reason for a decline in the production (Table 2).

In nearly all European countries there is an increasing interest for organic production. The consumers have a big demand for organic produced food. This trend is supported by the governments, which support the research.

## **Ongoing research:**

There are many trails started inside the subject: organic production of apples, whereas research inside other species are lacking (Table 3).

Especially Austria, Denmark, Sweden, Switzerland and The Netherlands seem to have big research programs (Table 3).

## **Conclusion:**

1. All countries have answered the questions. This is a very satisfactory.
2. In many countries the information's about the organic productions is limited or not very exact.
3. The biggest organic crops produced are olives, grapes and dry fruits. In central and northern Europe apples are the most important crop.

4. Most country gives subside to the organic production. The normal amount of subsidy is 400 to 850 Euro per ha per year.
5. Norway and Denmark are not allowed to use any copper compounds to control diseases.
6. In most countries there are an increasing trend towards organic production
7. There are many ongoing trails inside the subject apples, whereas researches inside other species are lacking.

**Table 1. The total area grown with organic fruits and berries, the sort of fruits, the size of production and the level of subsidies in 13 European countries.**

<b>Country</b>	<b>Total area with fruits and berries/ha</b>	<b>Sort of fruits</b>	<b>Size of production ton/year.</b>	<b>Subsidies Euro/ha/year</b>
<b>Austria</b>	430	Apples, currants, strawberries, Pears, Apricot, cherries, peaches, plums.	No information available	727
<b>Belgium</b>	209	Apples, pears, strawberries	No information available	744, first two years then 842.
<b>Denmark</b>	306	Black currants, Strawberries, Apples, sweet cherries.	80-200 most black currants. Information not very exact.	406, first two years. Then gradual reduced until 6 <sup>th</sup> year.
<b>France</b>	3.715	Chestnut, Apples, plums, walnut, apricots, cherries, Pears.	No information available	762, first 3 years.
<b>Germany</b>	980	Apples, pears, plums, peach, sour and sweet cherries, strawberries, raspberries, redcurrants, black currants, gooseberry and black berries.	No information available	511 in Baden-Württemberg
<b>Greece</b>	No information available	Olives, grapes.	No information available	Grapes:608
<b>Italy</b>	152.000 fruit and vegetables	Olive, grapes, citrus, fruit	206.000.000 (1-2% of total)	460
<b>Norway</b>	57	Apples, pears, plums, cherries, black currants, strawberries, raspberries, blue berries.	No information available	727 first two years then subsequent 182.
<b>Portugal</b>	16.733	Manly olives, grapes and dry fruits. But also citrus, peach, plums, carob, quince, apples, and strawberries.	736.104 (0,8 % of total production).	From 180 to 603. Depending on the species and irrigated or not.
<b>Spain</b>	2.215	Apples, pears, peaches, Citrus and olives	No information available	460
<b>Sweden</b>	189	Strawberries Apples Other berries	No information available	None
<b>Switzerland</b>	276	Apples, pears, cherry, plums, apricot, kiwi, strawberries, raspberries, blueberries, black berries	Apples app: 2-4.000	622
<b>The</b>	280	Apples,	4-6.000	11.344,

<b>Netherlands</b>		Pears, plums, cherries.		first 5 years.
<b>United Kingdom</b>	456	Apples, pears, Plums, cherries, strawberries, raspberries.	2.739	706, spread over 5 years.

**Table 2: Country, national guidelines, use of copper and progress in research and production.**

<b>Country</b>	<b>National guide lines</b>	<b>Use of copper products</b>	<b>Progress in production</b>	<b>Progress in research</b>
<b>Austria</b>	Organisations	Yes	Slow increase	Increasing very slow
<b>Belgium</b>	EU	Yes	Slow increase	Increasing
<b>Denmark</b>	Yes	No	Declining	Increasing
<b>France</b>	Yes	Yes	Increasing.	Increasing
<b>Germany</b>	Yes	Yes	?	?
<b>Greece</b>	EU	Yes	No trend	No trend
<b>Italy</b>	EU	Yes	Increasing	Increase expected
<b>Norway</b>	Yes	No	Increasing	Increasing
<b>Portugal</b>	EU	Yes	Increasing	Statuesque
<b>Spain</b>	EU	Yes	?	?
<b>Sweden</b>	Yes	Yes	Increasing	Increasing
<b>Switzerland</b>	Yes	Yes	Increasing	?
<b>The Netherlands</b>	EU	Yes	Increasing	Increasing
<b>United Kingdom</b>	Yes	Yes	Increasing	Increasing

**Table 3: Organic research in 13 European countries.**

Country	Apples and pears	Olives and citrus	Sweet cherries	Black currants	Strawberries
<b>Austria</b>	<ol style="list-style-type: none"> <li>1. Testing of scab resistant varieties.</li> <li>2. Testing of pear varieties.</li> <li>3. Compare different farming systems in apples.</li> <li>4. Possibilities to minimise overwintering of conidia of apple scab, apricot leaf scorch and cherry leaf spot.</li> </ol>				
<b>Belgium</b>	<ol style="list-style-type: none"> <li>1. A lot of research projects carried out at the universities and at experimental garden for organic production.</li> </ol>				
<b>Denmark</b>	<ol style="list-style-type: none"> <li>1. Variety testing of scab resistant varieties and others.</li> <li>2. Cover crops.</li> <li>3. Leaf shredding to prevent scab.</li> <li>4. Soil management in the tree row.</li> <li>5. Soil management and fertilising using sea weed.</li> <li>6. Combination of chicken and apples, pears and hazelnuts.</li> <li>7. Production with and without using sulphur.</li> <li>8. Scab resistant varieties for cider production.</li> </ol>		<ol style="list-style-type: none"> <li>1. Varieties.</li> </ol>	<ol style="list-style-type: none"> <li>1. Varieties.</li> <li>2. Variety tolerance to sulphur.</li> <li>3. Production on legs.</li> <li>4. Cover crops.</li> </ol>	<ol style="list-style-type: none"> <li>1. Varieties</li> <li>2. Techniques to reduce botrytis.</li> </ol>
<b>France</b>	<ol style="list-style-type: none"> <li>1. Some, more required.</li> </ol>				
<b>Germany</b>	?	?	?	?	?
<b>Greece</b>	<ol style="list-style-type: none"> <li>1. Probably none.</li> </ol>				
<b>Italy</b>	<ol style="list-style-type: none"> <li>1. Compare production systems.</li> <li>2. Soil fertility</li> </ol>				
<b>Norway</b>	<ol style="list-style-type: none"> <li>1. An orchard management system for organic fruit production and smaller projects.</li> </ol>				
<b>Portugal</b>		<ol style="list-style-type: none"> <li>1. Study the main olive tree enemies.</li> <li>2. Study of organic citriculture</li> </ol>			
<b>Spain</b>	<ol style="list-style-type: none"> <li>1. Some organic related projects.</li> </ol>				
<b>Sweden</b>	<ol style="list-style-type: none"> <li>1. Variety trails.</li> </ol>				

	<ul style="list-style-type: none"> <li>2. Fertiliser trial.</li> <li>3. Soil management and mulching.</li> <li>4. Varieties for mulching.</li> <li>5. The effect of Mychorritzae.</li> <li>6. Plant protection.</li> <li>7. Alternatives to pesticides for storage diseases.</li> </ul>				
<b>Switzerland</b>	<ul style="list-style-type: none"> <li>1. Varieties.</li> <li>2. Comparison integrated and organic productions systems on different sites.</li> <li>3. Thinning.</li> <li>4. Soil management.</li> <li>5. Preventing bitter pit.</li> </ul>		1. Varieties.		1. Control of grey mould.
<b>The Netherlands</b>	<ul style="list-style-type: none"> <li>1. Rootstocks and interstems.</li> <li>2. Growth control using non-chemical means.</li> <li>3. Varieties.</li> <li>4. Nitrogen nutrition.</li> <li>5. Development of innovative organic fruit production systems.</li> <li>6. Fruit thinning.</li> <li>7. Scab management in apples and pears.</li> <li>8. Nectria management.</li> <li>9. Economical position of organic fruit farms.</li> <li>10. Soil management.</li> <li>11. Regulation of growth, crop and mineral uptake.</li> <li>12. Reducing or replacing copper for scab control.</li> <li>13. Prevention of Scan Scab forecasting models.</li> <li>14. Organic pear production.</li> </ul>				
<b>United Kingdom</b>	<ul style="list-style-type: none"> <li>Review projects: 1. Technical and economic problems, 2. Control of weed.</li> <li>3. Varieties.</li> <li>4. Fruit on their own root.</li> </ul>				

**Information's are greatly appreciated:**

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*Belgium:*

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*France:*

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*Germany:*

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*Italy:*

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*Norway:*

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