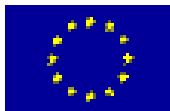


Renewable Energies (Bio-Energies)

EAF / ELO

Autumn 2004 meeting

Brussels, 10 November 2004



-1992 - First CAP action of the European Union in favour of biomass production for energy - Mac Sharry Reform. Voluntary non food production on land set aside.

- During the 90s some Member States, such as Germany, Italy, France and Belgium, began to produce for bio-fuel.



→ **Non food crops produced on the set-aside land for bio-fuel:**

a) sunflowers — oilseed rape

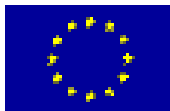
b) sugar beet – barley – wheat - maize

→ **Destination of products:**

a) bio-diesel for motors or building heating

b) bio-ethanol for motor

→ **Note: since 1989 sales of wine alcohol for fuel from distillation of CMO wine**



→ Production of bio-ethanol can come also by other kinds of biomasses, e.g. sugar cane (in Brazil), wood, potato, various types of green bio-mass. The latter are in experimental status or in small scale production

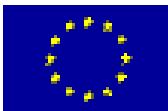
→ In 2004 in the EU-25 the following countries are producing bio-fuel: France, Spain, Germany, Italy, Belgium, Sweden, Finland, Lithuania, Czech Republic , Malta, Poland, Slovenia and Slovakia



● **Kyoto commitment of the EU to reduce emissions of CO₂ by 8% in 2010 compared to 1990**
Transport: directive n. 2003/30/EC - minimum proportion of bio-fuel, as energy content, that Member States have to put on their market of fuel for transport:

a) 2% not later than 31.12.2005

b) 5.75% not later than 31.12.2010



Estimated consumption of fuel for transport, by DG TREN, in the EU-25 in 2010 is 330 millions of tons

Oil fuel to be replaced by bio-fuel:

- 1.9 million tons in 2005

- 19 million tons in 2010

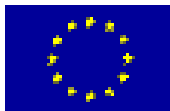
Share of bio-ethanol and bio-diesel to be defined



Possible need of fiscal reduction to promote the use of bio-fuel (see directive n. 2003/96/EC)

In 2004 the following Member States apply an excise duty reduction for bio-ethanol for transport:

France (50.23 €/hl), UK (20 pounds/hl since 6 February 2004), Spain (37 €/hl), Sweden (~52€/hl), Finland (30€/hl in a limit of 100.000 hl)



First objective of the EU : To respect the Kyoto commitments

Second objective of the EU : to reduce dependence on crude oil and to mitigate the large volatility of the crude oil price



Current situation: bio-ethanol production in EU

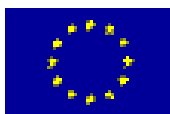
	2002		2003	
	<i>mio t</i>	<i>mio hl</i>	<i>mio t</i>	<i>mio hl</i>
Spain	0.095	1.2	0.175	2.2
France	0.095	1.2	0.080	1.0
Sweden	0.040	0.5	0.040	0.5
EU15	0.230	2.9	0.295	3.7

Source: UEPA



Total ethanol production in the EU

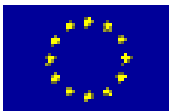
<i>The EU total production of ethanol (in '000 of hl)</i>					
	2002	2001	2000	1999	1998
Alc. Agricole	12.710	12.260	11.470	10.800	10.800
excl. Wine alcohol					
wine alcohol	2.940	2.870	2.675	2.055	2.195
Synthetic alcohol	6.600	6.300	5.800	6.400	6.700
TOTAL	22.250	21.430	19.945	19.255	19.695
<i>Source: UEPA</i>					



CAP reform of 2003 - measures in favour of energy crops:

- a) Possibility of non food production on set aside land has been maintained. A set-aside rate of 10% resulting in an area of about 4 million Ha.
- b) A new support scheme is available from 2004 for the energetic production. 45 €/Ha within a maximum guaranteed area of 1,5 millions of Ha

Producers may choose only one scheme



Area grown with energy crops per Member State
(oilseed is about 90% of total) :
set aside (Ha)

	1999/2000	2000/2001	2001/2002	2002/2003
Belgium	4 119	3 802	3 096	3 295
Denmark	26 987	23 875	20 274	20 591
Germany	341 836	331 312	351 438	334 735
Spain	501	43 197	45 593	45 593
France	387 884	403 208	352 842	348 455
Italy	14 275	13 340	13 340	13 496
Netherlands	86	259	272	218
Austria	9 737	7 015	10 967	12 634
Finland	671	737	670	881
Sweden	4 429	6 822		
United Kingdom	123 400	49 740	48 172	128 249
TOTAL EU-15	913 925	883 307	846 664	908 147

source: MS communications

Luxembourg and Ireland did not transmit any information



Area grown with energy crops by Member State:

new scheme 2004 (Ha)

Belgium	0
Denmark	4 680
Germany	165 000
France	130 000
Luxembourg	138
Netherlands	50
Austria	4 500
Finland	4 000
TOTAL EU-15	308 368

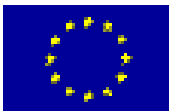
source: MS estimations



Bio-diesel production in the EU-15 ('000 tons):

(2003 estimations of the EBB) – (Production has increased by 32% compared to 2002. Share of bio-diesel production on the total biofuel in the EU-15 was 82.2% in 2003 and 17.8% for bio-ethanol)

Germany	715	
France	357	
Italy	273	(used for heating)
Austria	32	
Denmark	41	
UK	9	
Spain	6	
Sweden	1	
Total	1 434	



Through the introduction of decoupling by the 2003 CAP reform, producers will be able to choose to grow the most profitable production

With total decoupling, producers might produce energy crops for bio-fuel on their arable land

