



EUROPEAN
COMMISSION

COMMUNITY RESEARCH

Renewable Energy from Biomass in Estonia: current status and outlook

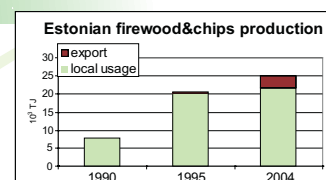
Katrin Heinsoo; Andres Koppel, Estonian Agricultural University

Riia 181, Tartu 51014, Estonia, katrin@zbi.ee, tel. +372 747 7172



Current situation in Estonia:

- Totally >440 th ha abandoned land
- Domestic traditional renewable sources of energy almost exhausted
- Prices of firewood and woodchips rising fast



Activities of Estonian Agricultural University (EAU) to develop the production and usage of renewables:

1 Studies about fast growing trees – hybrid poplars.

Contact person:

prof. H. Tullus
hardi.tullus@eau.ee



3 Evaluation of biomass fuels resources. Bioenergy landscapes planning.

Contact person:

prof. P. Muiste
peeter.muiste@eau.ee
www.balticbiomass.com

Energy production 10 ³ TJ	2002	Potential 2004	Potential 2030
Wood, wood residues	6,3	10,1	4,6
Wood pellets, briquettes	1,1	1,2	1,2
Black liquer	0,2	0,2	0,2
Straw		0,5	0,9
Energy crops		9,8	9,8
Reed		0,6	0,6
Biogas		0,4	0,4
Food waste		0,1	0,1
TOTAL	7,6	22,9	17,8

2 Analyses of the perspectives for Estonian bioenergy program.

Contact person:

Dr. K. Heinsoo
katrin@zbi.ee



4 Experimental short-rotation willow plantations.

Contact person:

Dr. K. Heinsoo
katrin@zbi.ee



Experimental short-rotation willow plantations of EAU:



No	Location	Area (ha)	Established in	Studies
1	Tõravere	0.2	1993	Light use efficiency
2	Kambja	0.3	1993	Productivity
		16	2003	Seasonal wastewater purification
3	Saare	0.6	1993	Productivity, fertilisation effect
4	Nõo	0.8	1994, 1995	Municipal sludge utilisation
		0.4	2001	Clone selection
5	Aarike	0.18	1995	Wastewater purification
6	Vohnja	4.1	2003	Annual wastewater purification
	Kihlevere	1.45	2003	Freeflow wastewater purification & constructed wetland
7	Väike-Maarja	0.2	1993	Wastewater purification

Ongoing international projects on short-rotation plantations in EAU:



- “Sustainable wastewater purification in Estonian small municipalities” www.zbi.ee/life
- “Monitoring and Control System for Wastewater irrigated Energy plantations” www.wacosys.info
- “Solutions for the safe application of wastewater and sludge for high efficient biomass production in Short-Rotation-Plantations”
- “Integrated European Network for Biomass Co-firing” www.netbiocof.net



SIXTH FRAMEWORK
PROGRAMME