



WP 4 – Task 5: PILOT PROJECTS

Pilot project No.1. – Best practice No. 3 – 226 points

Partner no.	18
Name of institution	Latvia University of Agriculture
Pilot region	Auce municipality
Regional biomass potential	Area of Study and Research Farm „Vecauce“ - 2000 ha, number of cattle – 350. Main agricultural crops – cereals, corn, fodder grasses and legumes
Title of the pilot project	Investigations on production and utilization of biogas in Study and Research Farm „Vecauce“
Description of the pilot project	<p>Aim of the ongoing pilot project is to provide efficient co-utilization of cattle manure and plant biomass (mostly corn) silage for round year biogas production in cattle farm „Līgotņi“, in Study and Research Farm (SRF) „Vecauce“ of Latvia University of Agriculture (LLU). Biogas cogeneration plant operation was commissioned in the October 2008 and energy output reaches rated power (360 kW heat and 270 kW electricity in spring 2009). Facility is only biogas plant utilising agricultural plant biomass and manure for biogas production in Latvia at a moment.</p> <p>The project consists of following parts:</p> <ol style="list-style-type: none">1. Realization of biogas production process from manure and biomass silage, and utilization of digestate in Study and Research Farm „Vecauce“ (LLU).2. Analysis of input substrates in fermenter for maximization of biogas production;3. Analysis of output substrates for utilization of fermented digestate utilization for soil fertilization, that demonstrates the savings of costs on mineral fertilizers;4. Restructuring of sowing areas in Study and Research Farm „Vecauce“ (LLU) to provide both valuable fodder for livestock or raw material for biogas production.5. Investigation of operational parameters of biogas cogeneration plant;



Bioenergy Promotion



	6. Assessment of economic and energetic effectiveness of biogas cogeneration plant operation within scope of Study and Research Farm „Vecauce“.
Proposed promotion	Sustainable and cost effective technology for biogas production from agricultural biomass
Promotional measures:	<ol style="list-style-type: none"> 1. Including of acquaintance with biogas cogeneration plant in curriculum of LLU study practices; 2. Providing of conferences, seminars and excursions on basis of SRF „Vecauce“ for all interests within scope of pilot region and whole Latvia 3. Information will be provided in booklets and websites (LLU website and other)
Target groups/partners to be addressed	Students, authorities in agriculture and in bioenergy, farmers, entrepreneurs in bioenergy business
Co-operation desired	Help with information on experience of similar biogas plants operation. Cooperation in investigations on advanced anaerobic fermentation processes and in evaluation of full life cycle for bioenergy production from manure and plant biomass
No. of predictable projects in which sphere	<p>Number: 1</p> <p>1 <input type="checkbox"/> Mobilization of biomass potentials</p> <p><input type="checkbox"/> Logistics</p> <p><input type="checkbox"/> Utilization of biomass</p> <p><input type="checkbox"/> Implementation of regional frameworks</p> <p><input type="checkbox"/> Sensibilization, regional clusters and exchange</p>
Comments	N/A.