

## **ENERGETIC POSSIBILITIES OF BIOMASS UTILIZATION IN ELBLAG REGION (NORTH PART OF POLAND)**

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### **ABSTRACT**

Agricultural character and unique – in European scale – nature resources of Elbląg Highland and Elbląg part of Vistula Żuławy are the important tramp for utilization of energy from renewable resources. Field experiments on utilization of *Sida hermaphrodita*, *Miscantus x giganteus*, *Helianthus tuberosus* and *Salix viminalis* are carried out in the region. The results show that the highest yields of energy, expressed as energy per 1 ha, are obtained from *Salix viminalis*. It is cultivated on scores of plantations in total area of about 100 ha. The yield of *Salix* depends on number of plants per 1 ha and harvest frequency. The highest yield of dry matter and energy (calculated per 1 year utilization of plantation) is obtained on alluvial soils in the climatic conditions of the region when the density is 20 000 plants per 1es ha and harvest – every 3rd year; obtained energy is an equivalent of energy from 12 ton of coal.