Abstract: In 2013 and 2014, the Bavarian State Institute of Forestry set up experimental plots of short rotation coppice on grassland. The aim of the project was to establish poplar-SRC plantations without ploughing and tilling, and without using herbicides. Furthermore, productive SRC plantations were needed to supply the estate administration's heating system with woodchips. The analysis of the collected data shows that the establishment of SRC plantations on grassland cannot succeed without weed control. By contrast, a bio-degradable foil used carefully to eliminate weed competition will ensure the success of the plantation. The cultivating of the planting rows, especially in combination with mechanical weed control, increases the survival rate of the cuttings too. On the other hand, conventional SRC plantations, in which the soil was ploughed and tilled prior to planting and moderate use was made of herbicides, showed higher survival rates for the cuttings and a higher yield in the first few years. As alternatives to the foil and cultivating of the planting rows to preempt weed damage, the project tried out the planting of one- and two-year-old poplar live stakes, and black and grey alder were planted. Both methods are more costly, but were successful. As natural trees, black and grey alder do of course also have a higher ecological value on these sites of considerable importance in terms of nature conservation.

Bio-Energy, Woodchips, SRC