

Editorial

Fast-Growing Trees Species—Opportunities and Risks for Sustainable Agricultural and Forest Land Use Systems

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The cultivation of fast-growing tree species has noticeably increased worldwide in recent years. Fast-growing tree species are cultivated in different land use systems. In addition to being classically cultivated in forests, they are also cultivated in short-rotation coppices (SRC) with different rotation intervals on forest and agricultural land. Moreover, in recent years, people have become increasingly aware of cultivation in agroforestry systems.

Due to these intensive practical activities, many new questions concerning the management of fast-growing tree species are waiting to be answered using applied and basic research. Thus, a large number of publications by researchers worldwide can currently be found in a wide variety of journals.

In addition to numerous articles, Special Issues on fast-growing tree species have also published by several journals. I would particularly like to highlight the Special Issue in the *BioEnergy Research* journal on the subject of “Sustainable Biomass Value Chains Based on Poplar Plantations in European Rural Areas” [1] and the Special Issue that followed shortly thereafter in the *Forests* journal, entitled “Growth and Development of Short Rotation Woody Crops for Rural and Urban Applications” [2].

While these two Special Issues specifically focused on short-rotation woody crops, the focus of the current Special Issue is much broader. It contains a total of ten papers, which mainly come from Germany (7), but also from Poland (1), the Czech Republic (1) and China (1). It also needs to be emphasized that the authors of these articles often represent an international team.

The articles in this Special Issue cover a very wide range of topics. In addition to research on breeding [3] and on the influence of pruning practices on the height growth of paulownia [4], three articles deal with the influence of site characteristics and nutrient availability on the physiology and yield security of fast-growing tree species [5–7]. The article by Kalita et al. focuses on the modeling of soil carbon in *Salix* plantations [8], while the article by Boruszewski et al. reports on potentially suitable areas for the planting of fast-growing tree species in Poland [9]. Zitzmann and Rode [10] examine the impact of short-rotation plantation management on phytodiversity [10], while Helbig et al. deal with the influence of leaf feeding on the growth of poplars and willows [11]. Finally, Hernandez-Estrada et al. describe the dry matter loss of poplar wood chips during storage [12].

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