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Abstract

Pulpwood versus energy wood: Sorting strategies for different stands and market conditions

Due to rising oil prices and attractive financial incentives, the demand for wood for the bioenergy sector is sharply increasing. It is widely accepted, that this demand will increase in the future, too. To adjust the resulting competition of utilisation between the pulp- and paper industry as well as the woodworking industry on the one side and the bioenergy sector on the other side, which are partly using the same raw material, all possibilities to optimise the supply should be used.

Precondition for this are detailed information about the expected volume of harvest, the corresponding product alternatives and the corresponding costs for supply of this products.

Therefore the volume of wood for industrial use and for energy recovery was calculated depending on different top end diameters and different lengths, based on inventory data of 37 different stands. Out of that, general models have been deduced. Following this, costs of typical supply chains and further the net revenue per area have been calculated for different price-scenarios.

With the help of these models it is possible to estimate the effects of varying sorting criteria on volume and net revenue. In result it allows, to optimise – in terms of maximise – either the net revenue per area or the volume of a preferred product.

Out of that data a decision tool is being developed, that is easy to use and that allows forest owners and stock purchasers to decide rational on assortments which should be produced under certain stand and market conditions.