

APPENDI X 1. Detailed description of the simulation parameters and forest management approaches considered in the case study.

Wood-production stands (WP) are managed as a planted stand followed by two coppice stands before replanting occurs with final harvest, whereas bioenergy production stands (BP) are managed as a planted stand followed by three coppiced stands. All rotations in BP stands are characterized by a rotation length of 5 yrs. Table A.1 summarizes the silvicultural operations practiced for each FMA, rotation, and age.

Table A.1 Detailed description of the forest management approach considered in the case study.

FMA	Rotation	Age	Silvicultural operations
WP	1	1	Planting (1250 trees/ha) and fertilization at planting
		2	Weed control and beating up
		4, 7 and 11	Weed control and fertilization
		16, 22 and 28	Weed control
	2 and 3	3	Weed control and shoot selection (1.6 sprouts per stool)
		5 and 8	Weed control and fertilization
		12, 17, 23 and 29	Weed control
BP	1	1	Planting (5000 trees/ha) and fertilization at planting
		2	Weed control and beating up
		4	Weed control and fertilization
		5	Final harvest
	2 until 3	1	Fertilization
		2	Weed control and fertilization
		4	Weed control

For WP final harvest can occur at any stand stage as long as the stand is older than the minimum age for harvesting defined by the simulation parameter.

The usual age for even-aged stands final felling was considered to be 12 yrs, but it can vary according to the need for wood. The harvesting method/system consists in removing tops, bark, and branches. Table A.2 contains the simulation parameters used in the simulations.

Table A.2 Simulation parameters considered in the case study.

Number of years to project	42
Minimum age for industrial use of wood after a fire (years)	5
Proportion wood industrially used after fire	0.6
Proportion of old/sparse non-industrial stands harvested	0.1
Proportion uneven-aged stands harvested	0.1
Minimum age for harvesting	8
Nr of age classes	6
Even-aged stands harvesting probability:	
Age= 8	0.1
Age= 9	0.2
Age= 10	0.3
Age= 11	0.4
Age= 12	0.5
Age> 12	0.95
Harvesting system:	
Bark	1
Branches	1
Top	1
Tops and branches	0
Assortments:	
Number of assortments	1
Id	1 2
Label	Pulp biomass
Top diameter (cm)	5 -
Log length (m)	2 -
Value (€/m ³)	45 25
FMA:	
Number of FMA	2
FMA Id	1 2
Number of rotations	3 4
Maximum age of rotation	30 5