

## Single tree silviculture (STS)



Silvicultural approach that early selects a limited number of target trees to which ensure a free and harmonious development of crown and trunk. The thinnings are selective or from above and they are oriented to remove the direct competitors of the target trees, preserving the remaining stand. The target trees are chosen as a function of vigor, stability, tree morphology, spatial distribution. The number of released target trees (from 50 to 120 per hectare) depends on the site characteristics, the species, the biotic and abiotic risks, the type of owner, the silvicultural goal. · This approach can be applied in high forests and in coppices, in conifers (as *Pinus nigra* and *Pseudotsuga Douglasii*) and broad-leaved species, to social (*Fagus sylvatica* and *Quercus* sp.) and valuable (*Castanea sativa*) or sporadic tree (*Prunus avium*, *Sorbus* sp., *Fraxinus* sp., ...) species, in public or private property. To apply this method is necessary: Specific training and care of technicians and workers from tree marker to logging Specific training of people involved in the control of the forest utilization. · From an economic and productive point of view: decreasing the management costs reduction of rotation time increasing of quantity and quality of assortments production of high-quality timber relatively quickly enhancement of phenotypes and / or species potentially able to produce quality timber - From an ecological and environmental point of view: increase of individual and stand stability increase of biodiversity increase of structural complexity maintenance of an irregular canopy cover protection of sporadic species - From a social point of view: integration with the traditional forestry increase of non-wood products increase of landscape value

## DETAILS

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### ORIGIN OF WOOD

Forest

### TYPE OF WOOD

Stemwood

### KIND OF WOOD CONCERNED

Stemwood

### IMPACT ON ENVIRONMENT & BIODIVERSITY

Positive effects

### INCOME EFFECT

Possibility to obtain income more frequent during the rotation period

### EXPLOITATION POTENTIAL

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### HUB

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### ECONOMIC IMPACT

Enhancement of valuable assortments; decrease of management cost but increase of expertise of forest companies

### MOBILIZATION POTENTIAL

Similar to traditional silviculture but with a higher amount of big and more valuable assortments

### SUSTAINABILITY POTENTIAL - VALUE

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### EASE OF IMPLEMENTATION

Medium implementation due to the great attention during the cutting and logging phases

### EASE OF IMPLEMENTATION - EVALUATION

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### KEY PREREQUISITES

Awareness of all stakeholders in the supply chain

### TYPE OF EVENT WHERE THIS BPI HAS BEEN FEATURED

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### JOB EFFECT

Connection to other wood and no-wood chain

### COSTS OF IMPLEMENTATION ( EURO - € )

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**SPECIFIC KNOWLEDGE NEEDED**

Forest training

## MORE DETAILS

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### CHALLENGE ADDRESSED

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### KEYWORDS

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### COUNTRY OF ORIGIN

Italy

### DOMAIN

Forest management, ecosystem, resilience

### DIGITAL SOLUTION

No

### SCALE OF APPLICATION

National

### TYPE OF SOLUTION

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### INNOVATION

No

### START AND END YEAR

2010 - 2019

## CONTACT DATA

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### OWNER OR AUTHOR

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### REPORTER

## REFERENCES AND RESOURCES

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### MAIN WEBSITE

<http://www.selvicoltura.eu/>

### PROJECT WEBSITE

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### PROJECT REFERENCE

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### RESOURCES

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**PROJECT UNDER WHICH THIS FACTSHEET HAS BEEN CREATED**

Rosewood

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