

## Ecotechnologies in Silviculture

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### Abstract

In european silviculture, forests have been managed, for the last 200 years, following the principle of the wood production continuity (durability). Forest management uses special ecotechnologies involving territorial organisation, planning and execution, regeneration, then attendance and protection of stands over long periods of time (more than 100 years). Several such technologies are described.

**Key words:** forest ecotechnologies.

### Introduction

Silviculture is an important economical branche, which, by a reasonable management of forests, ensures the production of numerous goods, especially wood, but also environment services which only forests can generate.

Silviculture, as a science and a practice, emerged in Europe in the late 1700's-early 1800's, when forests in the west of the continent were in a desastruous state and wood production was very low (Hartig,1791, Cotta, 1813).

In order to restore forests, early silviculturists conceived a management system by which they pursued to obtain a continuous , high and valuable wood production, by a special spatial organization of forests and a long term management of natural ecological processes within tree populations. The way trees grow – by annual accumulation of a thin layer of wood – and the fact that it takes at least one century for large-sized trees with valuable wood (which can have numerous utilizations) – were taken into account. Meantime, in order to ensure permanent economic resources for the management of forest administrations, forests must consist in tree populations of all ages and sizes, suitable for exploitation.

This was the principle of continuity in wood production, which is at the basis of european forestry for two hundred years, and is now called – not quite