

RESEARCHES REGARDING THE EVOLUTION OF FORESTRY VEGETATION ON DEGRADED LANDS IN ARIES VALLEY

HORIA VLASIN

Forest Research and Management Institute, Cluj-Napoca Station, Romania

ABSTRACT

The research studies lasted for 3 years (2000-2002), on the forestry districts of Alba and Cluj. The aspects approached and fulfilled during the researches were:

- the thoroughgoing study of the results referring to the stational conditions of the degraded lands;
- the specification of the ecological characteristics of the forestry species used for re-forestration of degraded lands (the fixing percentage, the maintainance percentage, medium diameter and medium height);
- watching the evolution in time of different species and types of forestry cultures, in different degraded lands conditions for previously installed cultures and for newly installed experimental areas;
- the specification of the protective and improving effects of the forestry cultures previously installed and on newly installed experimental areas on degraded lands (the stabilization of degrading process of lands, soil improvement, environment protection and improvement) and watching the progressive improvement, in time, of the degraded lands under the effect of protection forestry cultures;
- the selection of the most suitable species, re-forestration compositions and planting schemes for degraded lands on previously installed cultures and on newly installed experimental areas.

It was found out that the largest areas are the easily to strongly eroded lands, the areal sliding of small dimensions and depth and lands degraded by anthro-

pic activities (mining, agricultural and zootechnical activities). For previously installed cultures, among the resinous trees, good and very good results were given by spruce, larch, black pine and silvester pine, and among leafy trees: sycamore maple, cherry tree, ash tree, common maple, black alder tree, white alder tree, birch tree and black poplar.

On newly installed experimental areas, good maintainance percentage obtained manna, (93%), vinegar tree (92%), smelling willow (90%), ash tree (80%) and satisfactory results gave black pine and spruce, after 2 years from planting.

The land arrangement into simple terraces and borer made pits led to good results in fixing and maintaining the sapling.

Key words: degraded lands, forestry culture