WOODY PLANTING MATERIAL WEAKENING REASONS AND WAYS OF ITS HEALTH IMPROVEMENT AND REHABILITATION V. MAURER, A. PINCHUK, PhD

Technological and organizational mistakes in trees planting are compelling reasons of their deteriorating health condition. Solving this problem is possible with the plants weakening diagnostics methods in the early stages introduction in forestry and landscape management practice and effective actions timely conduct to improve their viability and biological sustainability.

Taking into account that the use of the weakened plant material is one of the causes of the oak, pine and other tree stands drying, and trees of various purpose frequent withering away, this phenomenon etiology research is extremely important. At the same time all isolating factors that causing saplings and seedlings weakening, union in three groups by peculiarities, the sequence of steps and specific value:

1. Factors (circumstances) of planting material weakening risks.

2. Planting material weakening causes.

3. Catalysts of weakened planting material deterioration and death.

By origin planting material weakening causes can be grouped into three groups:

1. Abiotic (factors of physical, chemical and mechanical nature).

2. Biotic (pathogens, primary and secondary pests and other factors of wildlife).

3. Agrotechnological or anthropogenic (організаційні).

High survival rate of saplings and seedlings at the permanent place is one of the main conditions for the success of silvicultural production and greening is the high survival rate of seedlings and saplings a permanent place. Mostly it depends on the quality of planting material, primarily on viability which is determined by the degree of weakening.

Problems of increasing survival rate of seedlings and saplings and extension of forest species planting terms can be solved by a substantial increase in the proportion of closed root system plant material use, industrial production of which, unlike developed countries, only introduced in Ukraine.

As research has shown, plants survival rising allows the use of "rehability" planting material with aboveground and underground optimized ratio By the prof. B. Schmidt method.

In the basis of the utility model laid the "rehability" technology of seedlings with open root system by providing enabling environment for the regeneration of damaged roots. The use of such seedlings can extend the terms of forest planting crops for 2-5 weeks.

Developed health improvement and rehabilitation algorithm of weakened planting material anticipates it differentiated using for silvicultural works and landscaping. According to it, seedlings and saplings planting should precede their division for three categories: «healthy», «weakened» and «diseased».

According to this algorithm, only healthy seedlings and saplings are suitable for sale or planting. In order to prevent low survival rate of weakened plants before planting it is appropriate to improve and rehabilitate by appropriate measures.

This approach to use weakened material of woody plants will allow to improve the quality of created plantings and use it effectively in the forestry and Landscape Architecture.