

## Analysis and optimization of the container tree seedling production processes

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*Working environment management specific of the container tree seedlings production centers (CTSPC) includes the problems of planning, automation, organization of production. The life cycle of production, work organization and seasonal variation significantly complicate the task of managing. Production processes require a lot of attention to ensure reproduction quality of forest resources, as well as rational use of budgetary funds.*

*The purpose of this research is the analysis and optimization of the container tree seedlings production processes. The paper used the method of Activity-Based Costing (ABC), in which assessed the cost of preparing the substrate. It can be concluded that CTSPC has the ability to not only produce their own substrate, but also to generate income from its sale. That also was founded that coordination procedures for the preparation of the substrate in line with seeding tapes and their subsequent planting in greenhouses, not only economically feasible, but also over the time limits.*

*To solve the problems of the optimization of manufacturing processes is justified use of simulation tools. The basic modeling approaches: System dynamics, Discrete event simulation, and agent-based modeling. There is examples of problems in the field of forestry, which can be solved with the help of this tool in article. It describes the main results obtained during the simulation of the production line CTSPC. The findings of the conduction of the research results are applied in practice, can be used in the work of employees and managers in the organization of processes in CTSPC. It is concluded that the simulation is an effective tool in matters of process optimization. This relatively new and fast-paced method of study allows you to visualize processes, carry out an unlimited number of experiments with different settings and select the best option. For the successful operation of all production processes can be standardized.*

**Key words:** *analysis, optimization, simulation, activity-based costing, container tree seedlings production center*