

Title System thinking for improving quality management of ornamentals
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Abstract

How do we address the problem of developing and understanding the positive or negative effects of the post harvest performance of the whole chain from production of plant to point of sale to end user (the customer)? The question is a central part in a Danish research project that focuses on studying the correlation between controlled stresses as a part of the production strategy for improving the post harvest performance (external and internal quality). However, we also aim to obtain a systems approach also design models for post harvest performance and software for analysing these relations. The greenhouse's climate computer collects all information about the environment during crop production. Hence, development of software support for performing the analysis is needed, which includes interfacing the greenhouse's climate computer and the observations of plant characteristics during the post-harvest phase. To generate further information plants from commercial nurseries were subjected to forced keeping quality tests and climate data analysed in relation to post harvest performance. To analyse these connections we have developed a preliminary model for prediction of keeping quality and a set of applications, which together form an analysis platform. Data for environmental factors are extracted from the greenhouse's climate computer. The keeping quality observations are entered into a relational database using a WiFi PDA. The system provides a flexible platform, which effectively facilitates the analysis of the effect of controlled stress on the post harvest performance. The results indicate that even severe stress conditions and mismanagement during production have surprisingly small effect on the post harvest compared to in the shipping chain.