Multi-level management of harvest for fresh fruit: the case of Corsican clementine

Raphaël Belmin, François Casabianca, Laurent Julhia and Jean-Marc Meynard

Abstract

Despite their crucial importance for food product quality, harvest management practices remain understudied. Harvest is particularly challenging in the fresh fruit sector, due to the fruit's perishable, variable, and seasonal nature. In this study, we seek to better understand the agronomic, organizational, and institutional drivers influencing fruit harvest management, using the Corsican clementine harvest as a case study. In that production area, the standard "Clémentine de Corse" protected geographical indication is used by local actors to define and enforce appropriate harvest practices. The data were gathered through interviews with the farmers, packing station managers, and shippers who form the first link in the production chain. We show that harvest practices are shaped by the interactions between three management levels: (i) the plot, where picking teams select the fruit to be picked from those to be left on the tree for the next pass; (ii) the farm level, at which growers synchronize the harvesting dynamics with the ripening process of a set of plots with heterogeneous degrees of maturity; and (iii) the marketing level, where shippers and packers must match up the harvesting dynamics of all their suppliers with the demands of their buyers' market. According to this multi-level perspective, we analyzed the agronomic, organizational, and institutional drivers influencing the diversity of harvest management practices among farmers, and the influence of the protected geographical indication on the harvest process. Our study is the first to highlight how harvest practices are constructed and how various hierarchical levels of agricultural systems act together to shape them. Based on these results, we draw generic lessons and perspectives with a view to improving fresh fruit harvest management.