Abstract:

In kiwifruit (Actinidia x deliciosa var. deliciosa cv. Hayward (A. Chev.) C.F. Liang et A.R. Ferguson), "curing" is particularly laborious (and expensive) as it involves storing the fruits under cover for 2-5 days period, depending upon temperature. Storage management is thus particularly difficult. "Curing" performed directly in the cold storage rooms is complicate, but trials carried out at commercial level suggests that when possible, its use could become generalised. The advantages could be significant at financial level (as fruit handling is reduced) and considerable at biological level as they enable "curing" to be carried out at a controlled rather than a variable temperature as at present and the product to be protected naturally rather than through the use of chemicals. For kiwifruit, the use of CA is known to prolong storage time by about two months with respect to regular storage, but at the same time, stem end rot caused by Botrytis cinerea increases considerably. The aim of this study was to identify the best method for "curing" in a cold storage room and verify the optimum delay for the commencement starting of the CA regime (taken as far as 40-45 days after harvesting) without compromising maintenance of the flesh softening of the fruit. The study confirmed that the incidence of stem end rot caused by Botrytis cinerea can be reduced using natural systems involving neither higher costs nor the use of chemicals. "Curing" directly in cold storage rooms and delaying establishment of the CA regimes to 30-40 days after harvesting, reduces the incidence of stem end rot. At the same time, there are no major negative effects on the fruit flesh softening, to the point of compromising their marketable value.