Title Can colored shade nets maintain sweet pepper quality during storage and marketing?

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Abstract

Colored shade nets, which have been developed during the last decade to filter selected spectral regions of sunlight, concomitantly with inducing light scattering, are designed to specifically modify plant behavior. Crops grown under various colored (photo-selective) shade nets (ChromatiNets™) were found to improve their fruit yield and fruit quality. In the study described here, we have found that pepper grown in an arid region under red and yellow shade nets, had a significant higher yield compared with black nets of the same shading factors, without reducing fruit size. In addition, the export-quality fruit yield was also significantly increased under the red and yellow shade nets. Our results from 2007 further showed that the photo-selective nets, especially the yellow shade net, maintained better the pepper fruit quality, as was evaluated by several quality parameters. Most prominently, it lowered the decay incidence at the end of storability and shelf-life simulation. The results suggest the advantage of growing pepper under light-dispersive photo-selective shade nets, rather than the traditional black nets, for improving productivity, quality and probably also, shelf-life. The latter requires further verification.