

Title Senescence-associated genes in harvested broccoli florets
Author Yu-Ting Chen, Long-Fang O. Chen and Jei-Fu Shaw
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Abstract

Broccoli, *Brassica oleracea* L. var *italica*, is an important vegetable crop known to be rich in vitamins and sulforaphane. However, rapid postharvest senescence in harvested floral heads reduces its value. Complex factors such as ethylene biosynthesis, temperature, and respiration are involved in this senescence process. Meanwhile, recent developments on postharvest biotechnology, as well as studies on functional genes related to postharvest senescence have provided an opportunity for conquering this problem. In this review, we will discuss the genes involved in broccoli senescence and the physical, chemical, or genetic methods to increase shelf life and reduce quality loss due to postharvest senescence.