Title Control of senescent spotting in banana fruit

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Abstract

Banana is a fruit crop of Thailand, which plays an important role of economics and nutritional values. There are three banana cultivars grown commercially in Thailand namely 'Kluai Hom Thong' (acuminate, AAA group, 'Kluai Namwa' (paradisiacal, ABB group) and 'Kluai Khai' (acuminate, AA group). After reaching maturation, banana fruits will enter the ripening processes, and undergo physiological, chemical and physical changes, resulting in a good eating quality. Senescent spotting develops during the latter phase of ripening when banana fruits are most desired. 'Kluai Hom Thong' and 'Kluai Namwa' do not develop senescent spotting, while 'Kluai Khai' does upon ripening. Senescent spotting is characterized by the appearance of superficial brown spots or flecks. The appearance of senescent spots begins when the peel becomes yellow with a green tip. At this stage, senescent spots are very small, like pins, light brown in color and can be closely seen by the naked eye. The spots gradually increase in size and number, and become dark brown as banana fruits advance in the ripening process. Senescent spotting does not affect eating quality of banana fruits but it reduces the attraction. Many consumers presume that senescent spotting is a pathogenic disease. In fact, it is a physiological disorder that is a non-pathogenic disease. The development of senescent spotting depends on many factors such as ripening stage, cultivar, atmosphere, temperature, relative humidity, etc. control of senescent spotting can be effectively done by modified atmosphere and temperature management.