

against plant pathogens. Similarly, kinetin is reported to promote germination, growth development and enhances cell division (Allen et al., 2002). Salicylic acid may influence a wide range of developmental and physiological processes, including seed germination and fruit yield, transpiration rate, stomatal closure membrane permeability (Barkosky and Minhellig, 1993; Elaleem et al., 2009), growth and photosynthesis (Khodary, 2004). Positive effects on plant growth and root development due to their capacity to promote plant nutrient uptake and use efficiency when applied at low doses (Ertani et al., 2009).

Production practices

Production practices such as pruning treatment and reduction in fruit number significantly affect fruit size. For example, reducing the amount of fruit can increase the size. Fruit packaging has also been applied in limited quantities in order to reduce the damage caused by disease or insects and in some cases this can hamper the development of color in fruits and vegetables, which in turn affects the quality of post-harvest. Cultivation of conventional and organically grown on the same farm showed the use of different agronomic effect. Ascorbic acid, α -, γ -tocopherols β -carotene was higher in plants cultivated in organic farms (Lombardi-Boccia et al., 2004).

Harvest and post harvest

Harvest should be completed during the coolest time of the day, which is usually in the early morning, and produce should be kept shaded in the field. Mechanical damage also increases moisture loss (Bachmann and Earles, 2000). Most storage crops require low temperatures and high humidity, two factors that don't come together easily. Several others require low humidity and low temperatures (Bachmann and Earles, 2000).

Postharvest losses vary greatly among commodities and production areas and seasons (Kader, 2005). Estimates of postharvest losses in developing countries vary greatly from 1 to 20% or even higher (National Academy of Sciences, 1978). Biological (internal) causes of deterioration include respiration rate, ethylene production and action, rates of compositional changes (associated with color, texture, flavor, and nutritive value), mechanical injuries, water stress, sprouting and rooting, physiological disorders, and pathological breakdown. The rate of biological deterioration depends on several environmental (external) factors, including temperature, relative humidity, air velocity, and atmospheric composition (concentrations of oxygen, carbon dioxide, and ethylene), and sanitation procedures (Bartz and Brecht, 2002).

Conclusion

Optimization of plant bioactive compounds can be done with proper management arrangements such as cultivation, selection of species or varieties of plants, habitats, soil, seasons and weather and how culture can lead to differences such as taste, odor, chemical content and the amount of production generated. In addition, understanding of the nature and effect of product harvest handling practices are very important to do the best compromise to maintain the optimum condition of the product.