World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:14, No:12, 2020

The Utilization of Salicylic Acid of the Extract from Avocado Skin as an Inhibitor of Ethylene Production to Keep the Quality of Banana in Storage

Authors : Adira Nofeadri Ryofi, Alvin Andrianus, Anna Khairunnisa, Anugrah Cahyo Widodo, Arbhyando Tri Putrananda, Arsy Imanda N. Raswati, Gita Rahmaningsih, Ina Agustina

Abstract: The consumption level of fresh bananas from 2005 until 2010, increased from 8.2 to 10 kg/capita/year. The commercial scale of banana generally harvested when it still green to make the banana avoid physical damage, chemical, and disease after harvest and ripe fruit. That first metabolism activity can be used as a synthesis reaction. Ripening fruit was influenced by ethylene hormone that synthesized in fruit which is experiencing ripe and including hormone in the ripening fruit process in klimaterik phase. This ethylene hormone is affected by the respiration level that would speed up the restructuring of carbohydrates inside the fruit, so the weighting of fruit will be decreased. Compared to other klimaterik fruit, banana is a fruit that has a medium ethylene production rate and the rate of respiration is low. The salicylic acid can regulate the result number of the growth process or the development of fruits and plants. Salicylic acid serves to hinder biosynthesis ethylene and delay senses. The research aims to understand the influence of salicylic acid concentration that derived from the waste of avocado skin in inhibition process to ethylene production that the maturation can be controlled, so it can keep the quality of banana for storage. It is also to increase the potential value of the waste of avocado skin that were still used in industrial cosmetics.

Keywords: ethylene hormone, extract avocado skin, inhibitor, salicylic acid

Conference Title: ICSRD 2020: International Conference on Scientific Research and Development

Conference Location : Chicago, United States **Conference Dates :** December 12-13, 2020