

Considerations on growth characteristics of different pineapple varieties in Côte d'Ivoire, La Reunion and Caribbean Islands

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Tendency in pineapple markets is to offer more and more varieties to the consumers as it is done for other products. Beside the references of 'Smooth Cayenne' and today 'MD-2' varieties, 'Queen' and new hybrids are also proposed for commercial production to the farmers. As consistency in production and quality is a key point for markets, it is important to know the behaviour of the different varieties at field level. Growth characteristics of 'MD-2', 'Smooth Cayenne' and 'Queen Victoria' have been assessed in different areas, such as on one hand in Côte d'Ivoire for 'Smooth Cayenne', 'MD-2', and on the other hand 'Queen Victoria' in La Reunion; additional data from Martinique have also been used for all varieties. Plant weight increases in a similar pattern for 'Smooth Cayenne', 'MD-2' and 'Flhoran 41', but is slower for the 'Queen' variety. 'D' leaves growth shows the classical sigmoid pattern for all the varieties. 'D' leaves weight is used as an index for forcing date determination. In Côte d'Ivoire on 'Smooth Cayenne' and 'MD-2', forcing is done when 'D' leaves reach 80 g fresh weight. At this stage plant weight is 2,0 kg and expected average fruit weight is 1.5 kg (standard for export). 'Flhoran 41' for the same plant weight, has a larger number of leaves and 'D' leaves weight is 75 g to harvest a fruit of 1.5 kg. 'Queen' shows a 'D' leaf weight of 50 g for a plant weight of 1.0 kg giving an average fruit weight of 700 g (air freight standard in La Reunion). The data give also a confirmation, if needed, that whatever the variety is, aerial suckers have faster growth than slips and the last ones have a faster growth than fruit crowns. A tentative growth model based on sum of temperature is proposed. It may be useful for determination of the date of forcing under standard growth conditions.

Key-words: *Ananas comosus var. comosus*, growth – fruit weight correlations, Smooth Cayenne, MD-2, Queen, Flhoran 41.