

## Studies on the Fruit Disorder of Mango (cv. Chin-huang) in Liu-Kwei Area

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After three years of field experiments, the fruit disorder of mango (cv. Chin-Huang) in Liu-Kwei area was proven to be caused by high nitrogen and low calcium uptake by plants. For the normal fruits, the nitrogen and calcium contents were about 45-104 mg/kg and 32-73 mg/kg, respectively. The N/Ca ratios were ranged from 1.23 to 1.50. For the disorder fruits, however, the nitrogen and calcium contents were about 62-128 mg/kg and 16.7-50 mg/kg, respectively. The N/Ca ratios were ranged from 2.06 to 5.90. The degree of disorder fruit increased when the N/Ca ratios within the fruit become greater. Besides, the range of boron contents within the fruits were 0.16-0.35 mg/kg, and there were not much different between the normal and disorder fruits. Based on the survey data of rainfall, it was found that from blooming to juvenile fruit stage, low precipitation may affect the calcium uptake, so that the calcium content of the fruit will be lower. On the other hand, if a high precipitation is found after climacteric stage, it will promote the nitrogen uptake and increase the nitrogen content within the fruit. Thus, if the distribution of the rainfall is abnormal, low precipitation before juvenile fruit stage and high precipitation after climacteric stage, the N/Ca ratio of the fruit at later stages will be high, resulting in high percentage of disorder fruits. For increasing the calcium content within the fruit, and declining the N/Ca ratio and rate of disorder fruits of mango, it is suggested to supply water and apply calcium fertilizer during the blooming stage.

Key words : Mango , disorder fruit, N/Ca ratio , fertilization

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