

PHYSIO-CHEMICAL PROPERTIES OF PUMMELO [*CITRUS GRANDIS* (L.) OSBECK] GROWN UNDER NORTHERN PARTS OF WEST BENGAL

Nilesh Bhowmick, Arghya Mani*, Prodyut Kumar Paul and V.S.S.V. Prasanna

Department of Pomology and Post-harvest Technology, Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar, West Bengal-736165

**Present address-Department of Post-harvest Technology, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia, West Bengal-714252
Email: nileshbhowmick@gmail.com*

Received-14.09.2017, Revised-26.09.2017

Abstract: A study was conducted to identify the elite pummelo genotypes among its natural population from different locations of North Bengal. The fruits from 22 different accessions were collected in ripe condition and their physio-chemical characteristics were assayed. The study showed that a wide variability exists among different fruit samples collected from distinct locations. The result shows that the fruit skin colour shows variation from greenish-yellow to orange, most of the fruits are round shaped whereas some fruits are oval as well. The placental tissues shows colour variability from whitish to pink and even reddish as well. The taste of the juice are classified as sour in some occasions to sweet in many occasions and very sweet in few occasion. Accession-17 showed the maximum average weight of fruit whereas the minimum fruit weight was observed in accession-16. The length and breadth of the fruit was found maximum in accession 17 and 20 and minimum in accession 14 and 11 respectively. The peel-pulp ratio was maximum in accession 13 and minimum in accession 3. Juice content was found maximum in accession 4 and minimum in accession 3. The TSS was found maximum in accession 15 and minimum in accession 13.

Keyword: Pummelo, Variability, Physio-chemical, North Bengal

REFERENCES

Singh, I.P. and Singh, S. (2006). Exploration collection and characterization of citrus genetic diversity in north-eastern hill region In: Horticulture for Sustainable Income and Environment protection, Vol. I., V.B. Singh, AkaliSema and Pauline Alila (Eds.), Concept Publishing Company, New Delhi, India, pp.180-210.

Winton, L.A. and Winton, K.B. (1961). Grapefruit in structure and composition of foods. (2): Vegetables, Legumes, Fruits. Published by John Wiley & Sons, Inc. London.

Tsai, H.L., Chang, S.K.C. and Chang, S.J. (2007). Antioxidant content and free radical scavenging ability of fresh red pummelo (*Citrus grandis* (L.) Osbeck) juice and freeze-dried products. *Journal of Agriculture and Food Chemistry*. **55**(8): 2867-2872.

Dillard, C.J. and German, J.B. (2000). Phytochemicals: nutraceuticals and human health. *Journal*

of the Science of Food and Agriculture. **80**(12): 1744-1756.

Zhang, M., Duan, C., Zhang, Y., Huang, Z. and Liu, G. (2011). The flavonoid composition of flavedo and juice from the pummelo cultivar (*Citrus grandis* (L.) Osbeck) and the grapefruit cultivar (*Citrus paradisi*) from China. *Food Chemistry* **129**(4): 1530-1536.

Gorinstein, S., Cvikrova, M., Machackova, I., Haruenkit, R., Park, Y.S., Jung, S.T., Yamamoto, K., Ayala, A.L.M., Katrich, E. and Trakhtenberg, S. (2004). Characterization of antioxidant compounds in Jaffa sweeties and white grapefruits. *Journal of Food Chemistry*. **84**(4): 503-510.

AOAC.(1995). Official methods of analysis of AOAC international, 16th edition. Association of Official Analytical Chemist. Washington, USA. pp. 1141.

*Corresponding Author