CHARACTERIZATION AND EVALUATION OF WOOD APPLE (*FERONIA LIMONIA* L.) GENOTYPES FOR YIELD AND QUALITY

J.Rajangam[1]*, C. Sankar[1], and M. Uma Maheswari[2]

[1]Department of Fruit Science, Horticultural College and Research Institute, Periyakulam, Tamil Nadu, India-625 604
[2]Department of Natural Resource Management, Horticultural College and Research Institute, Periyakulam, Tamil Nadu, India-625 604

jrajangam2016@gmail.com,csankarhorti@gmail.com, umavalarmathi987@gmail.com

ABSTRACT

A study was conducted to identify promising genotypes of wood apple (*Feronia limonia* L.) for yield and quality. Fifteen different genotypes were initially screened for their yield and fruit quality characters. Out of which, nine genotypes (WFL-01, WFL-02, WFL-03, WFL-04, WFL-05, WFL-06, WFL-07, WFL-08 and WFL-09) were characterized and evaluated for their morphological, yield and biochemical characters at the Department of Fruit Science, Horticultural College and Research Institute, Tamil Nadu Agricultural University, Periyakulam during 2014-2019. The experiment was laid out in Completely Randomized block Design (CRD) with three replications. Morphology, yield and quality attributing parameters were analysed and the results revealed that the average fruit weight ranged from 128.10 g to 452.84 g, fruit length and width from 6.34 cm to 10.71 cm and 6.46 cm to 9.56 cm, respectively. Pulp weight between 56.83 g and 325.96 g, number of seeds per fruit ranged from 260.78 to 618.67, and shell thickness from 0.30 cm to 0.43 cm. Besides, the quality parameters like total soluble solids ranged from 12.80 to 14.60 ^{o}Brix, acidity from 2.47% to 3.75%, ascorbic acid from 13.14 to 15.72 mg/100g, calcium ranged from 122.07 to 234.11mg/100g, potassium from 651 to 727.34 mg/100g and pectin from 4.55% to 5.30%. The outcome of the research revealed that the genotype WFL-03 recorded the highest fruit weight (452.84 g), fruit length (10.71 cm), fruit width (9.56 cm), pulp weight (325.96 g), with more number of fruits per tree (310.67), and yield per tree 140.79 kg. It was also observed to contain high TSS, titrable acidity, ascorbic acid, pectin and mineral nutrition contents.

Keywords: Wood Apple, *Feronia limonia*, evaluation, yield, quality