

## Effect of bark of *Bridelia thermifolia* (“Kelle”) on clarification of cashew apple juice

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### 1. ABSTRACT

The objective was evaluation on the effect of clarification of cashew apple juice using bark of *B. thermifolia* locally called “Kelle”. The crude cashew apple juice was produced using the red and yellow varieties and the yield of production was calculated. From each variety, 9 experimental samples were achieved by substituting the crude juice with “kelle” as clarifying agent from 1-9% in addition to the control sample (crude juice). The kinetics of clarification was determined with all the samples and their sensory properties (taste, astringency, colour and overall acceptability) were evaluated. From the sensory evaluation, the 3 more appreciated products were subjected to physicochemical analyses (pH, turbidity, titratable acidity, total sugars, vitamin C, total carotenoids,  $\beta$ -carotene, total polyphenols and total tannins). The result showed that yield of juice was not affected by the cashew apple variety. Samples with 1% of *B. thermifolia* (“Kelle”) showed the greatest kinetic of clarification and control sample the lowest independently of the cashew apple variety. In general, “Kelle” improved the sensory properties of cashew apple juice and this achievement reduced with increasing of its concentration. The clarifying agent affected the physicochemical properties of the cashew apple juice. There was decrease of the total carotenoids, total polyphenols,  $\beta$ -carotene, total tannins, vitamin C and titratable acidity and, increase in the turbidity, pH and total sugars contents. Clarification of cashew apple juice with 1% of *B. thermifolia* or “Kelle” had the highest total carotenoids,  $\beta$ -carotene, vitamin C and best sensorial. It also had the lowest tannins and total polyphenols contents and hence, it should be recommended.