Development of a Wine from Tamarind *(Tamarindus indica)*, a Value Added Product from an Underutilized Fruit Crop in Sri Lanka

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Tamarind *(Tamarindus indica)* is an underutilized fruit crop in Sri Lanka which has a greater potential towards food product development. A trial to develop wine with baker's yeast instead of the wine yeast was attempted. As the initial step suitable workable tamarind pulp: water ratios were selected as 1:07, 1:08, 1:09 and 1:10 and the pH and Total soluble solid levels were adjusted as optimum for both wine yeast and baker's yeast and allowed for fermentation for one month. Alcohol content determined using embiliometer in wine, prepared using wine yeast and baker's yeast suggested that the wine sample prepared using wine yeast was significantly higher ($p<0.05$), while the sample with 1:09 tamarind pulp: water ratio fermented using wine yeast was significantly lower ($p<0.05$). Wine samples prepared using two different yeast types were compared for anti-oxidant activity using ascorbic acid as the reference. According to the results, quality of the wine yeast incorporated wine was significantly higher ($p<0.05$). Among the pulp: water ratio series, the sample 1:09 sample which was fermented using wine yeast was significantly higher ($p<0.05$) from among other samples. Sensory analysis was conducted to asses the consumer preference of the prepared wine samples using wine yeast and different pulp: water ratios (1:07, 1:08, 1:09, and 1:10). The results indicated that the consumer preference was not significant ($p<0.05$) for the odor, color and overall acceptability, but was significant ($p<0.05$) for the flavor of the wine. Among the concentration series 1:09 pulp: water ratio was significantly higher ($p<0.05$). In the sensory analysis of the baker's yeast fermented tamarind pulp samples, a significant difference ($p<0.05$) for color and odor was observed but it was not significant ($p<0.05$) for flavor and overall acceptability. Among the samples 1:07 pulp: water sample was significantly higher ($p<0.05$) in comparison to the others. Comparison of the best wine yeast fermented wine (1:09 pulp: water ratio) sample and baker's yeast fermented wine (1:07 pulp: water ratio) sample were compared with each other. According to the results, wine prepared using wine yeast with 1:09 tamarind pulp: water, showing 8.3 % alcohol and 99.61 % anti-oxidant content can be recommended as the optimized wine for the consumers.

Key words: Wine, Yeast, Fermentation