

## FORMULATING A GELATIN-FREE SET YOGHURT WITH PATHA

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Lacto vegetarians are reluctant to eat yoghurts due to gelatin as it is a non-vegan compound. Thus, this study was focused in developing a set yoghurt using *Patha* (*Cyclea peltata*) leaf gel as a gelatin substitute. The gelatin was extracted by grinding the leaves. There were four recipes of set yoghurts prepared incorporating different levels (0, 4, 6 and 8 g) of *Cyclea peltata* leaf gel per one liter of yoghurt mix. The other ingredients were used in similar proportions in all four recipes. The yoghurt prepared with zero level of *Cyclea peltata* leaf gel level was considered as the control and it contained 6 gL<sup>-1</sup> gelatin instead. The most effective recipe was selected by analyzing for proximate composition, pH, titratable acidity and shelf life and finally by undertaking a sensory evaluation. Leaf gel added set yoghurts possessed lower ( $p < 0.05$ ) pH values compared to control. Titratable acidity was not different ( $p > 0.05$ ) in all four recipes and it was within the acceptable range of 0.8 up to 4 days of storage. There were no Coliforms observed in all four recipes; neither the yeast nor mould was observed up to 12<sup>th</sup> day of storage. The color and appearance were not different ( $p > 0.05$ ) among the four recipes. Yoghurt prepared with 6 gL<sup>-1</sup> of leaf gel had the highest ( $p < 0.05$ ) sums of rank in the sensory evaluation followed by control. The proximate composition was similar ( $p > 0.05$ ) in the yoghurts prepared with 6 gL<sup>-1</sup> of leaf gel and control except for crude fiber content which was higher ( $p < 0.05$ ) in the yoghurts prepared with 6 gL<sup>-1</sup> of leaf gel. Thus, it can be concluded that *Cyclea peltata* leaf gel can be used as a total substitute for gelatin incorporating up to 6 gL<sup>-1</sup> in the preparation of set yoghurt and it can be stored up to 12 days without interfering with sensory attributes.

**Keywords:** Gelatine substitute, Leaf gel extract, Shelf life, Set yoghurt