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Arabinoxylans contents of Sri Lankan Finger Millet (*Eleusine coracana*) varieties

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Arabinoxylans (AX), the main non starch polysaccharide in cereals, are considered as dietary fibers and act as prebiotics with many health benefits. These have also demonstrated beneficial technological properties in food processing. As the consumer preference for functional foods is on the increase worldwide, prebiotics such as AX are gaining much interest. The present study was conducted to determine total AX, water-extractable AX (WEAX) and water-unextractable AX (WUAX) contents of Sri Lankan finger millet varieties, namely Ravi, Rawana and Oshada.

Finger millet samples were collected from the Field Crop Research and Development Center, Mahailluppallama. Total AX and WEAX contents were determined according to the *Phloroglucinol colorimetric assay.* D(+)-xylose was used to plot the standard curve. All samples were analysed in triplicate and data of each experiment were statistically analysed using the MINITAB 14 statistical software. Statistical significance was set at 95% confidence level. One way analysis of variance (ANOVA) was used to determine the differences among the varieties. Total AX percentages of Ravi, Rawana, and Oshada were 1.86 ± 0.05, 1.82 ± 0.11 and 1.93 ± 0.29 respectively. WEAX and WUAX percentages of Sri Lankan finger millet varieties ranged from 0.18 ± 0.02 to 0.20 ± 0.02 and 1.66 ± 0.08 to 1.76 ± 0.28 respectively. The variety Oshada had the highest total AX, WEAX and WUAX contents compared to the other two varieties. However, there were no significant differences ($p>0.05$) among total AX, WEAX and WUAX contents of the three finger millet varieties. The findings of this study provide evidence for the prebiotic potential of Sri Lankan finger millet varieties.

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