INTRODUCTION

- Millet and sorghum are cereals and members of family Poaceae.
- There are many sorghum and millet types.
- Sorghum: biomass, forage, grain, and sweet sorghum
- Millet: common, foxtail, kodo, finger, and pearl millet
- Highly suitable for both food and feed purpose due to their nutritional value
- Rich sources of various bioactive compounds, mainly polyphenolic compounds
- And also; Antioxidant Compounds => Correlated to the lipid lowering activity
- Health Benefits: Cancers, Diabetes, Cardiovascular diseases, Disease associated with aging, Neurological disorders

OBJECTIVES

- To determine the phenolic content of selected millet types and sorghum varieties in Sri Lanka
- To determine the anti-lipidemic properties of selected millet types and sorghum varieties in Sri Lanka

MATERIALS AND METHODS

- Sample collection: From field crops research and development institute, Mahalipappalam, Anuradhapura
- Eight Samples: (Sorghum bicolor L. Moench) (Jital irigo)
  1. Sweet Sorghum
  2. Sorghum ICSV 112
  3. Kodo Millet - (Paspalum scrobiculatum), (Amu)
  4. Foxtail Millet - (Setaria italica), (Thana halu)
  5. Proso Millet - (Panicum miliaceum), (Moneri)
  6. Finger Millet - (Eleusine coracana), (Kurukkan)
  7. White Finger Millet
  8. Proso Millet -Kodo Millet

- Preparation of samples and methanolic extracts
- Determination of Total Polyphenolic Content (TPC) - Folin Ciocalteu's Method
- Determination of Total Flavonoid Content (TFC) - Aluminum Chloride Method
- Determination of Lipase Inhibition Activity
- Determination of Cholesterol Esterase Inhibition Activity

RESULTS

- Table 4.1: Mean TPC of selected samples with standard deviation

CONCLUSIONS

- Investigated all millet and sorghum samples had phenolic compounds and anti-lipidemic properties with varying potential.
- Among studied millet and sorghum samples, Sweet sorghum had highest phenolic content and anti-lipidemic properties.
- The order of potency for phenolic content and anti-lipidemic properties: Sweet sorghum > Oshadha > Kodo millet
- Both millet and sorghum types showed moderate anti-lipidemic properties compared to the reference drugs used in the study.
- Findings of this study can use to prevention of oxidative stress associated chronic diseases and for development of functional food and nutraceuticals.

REFERENCES