I prefer:

□ ORAL presentation

□ POSTER presentation

**Extraction and activity evaluation of polysaccharide from ginger**

Xu Juan1\*, Chu Xiuling2

\*lead presenter

113220957628@163.com, College of Agronomy and Agricultural Engineering, Liaocheng University, China

2 College of Agronomy and Agricultural Engineering, China

**Abstract:**

**Background/Objective:** [To optimize the extraction conditions of ginger polysaccharide, ginger was used as the raw material and the yield of ginger polysaccharide was used as the evaluation index.]

**Methods:** [The impact of solid-liquid ratio, extraction temperature, and extraction duration on the extraction of ginger polysaccharide was thoroughly examined through both single-factor and orthogonal testing methodologies. The antioxidant capacity of ginger polysaccharide was evaluated through the scavenging test on ABTS+ free radical and DPPH free radical. ]

**Results:** [The findings revealed that the optimal conditions for achieving the highest extraction yield of ginger polysaccharide were a solid-liquid ratio of 1:20 g/mL, an extraction temperature of 90°C, and an extraction duration of 1 hour.Under these conditions, the yield of ginger polysaccharide could reach 15.89%.The scavenging efficiency of ginger polysaccharide increasesed with the concentration of ginger polysaccharide in the range of 0.1-3.2 mg/mL.]

**Conclusion:** [Ginger polysaccharide shows remarkable antioxidant potential, making its antioxidant activity worth further scientific research and application exploration.]

**Keywords:** [Ginger polysaccharide; Water extraction；Alcohol precipitation; Orthogonal test; Antioxidant]