**Title: Effect of NaCl on physicochemical properties of xanthan gum – water chestnut starch complexes**

**Abstract:**

Pasting and functional properties of water chestnut starch (WCS) alone and mixture of WCS and xanthan gum (XG) were determined by addition of NaCl with different  concentrations (0.5, 1, and 2%) at fixed water chestnut starch (5%) and xanthan gum (0.3%). Pasting properties of WCS – XG mixture were obtained by Brabender Viscoamylograph. Results indicated that presence of NaCl had a significant impact on functional and pasting properties of both WCS alone and WCS – XG mixture.  Pasting temperature of WCS and WCS – XG mixture was increased linearly with increasing salt content. A reverse trend was observed in peak viscosity and set back in case of WCS alone. It was found that addition of NaCl decreased the swelling power of WCS alone, while it increased in case of WCS – XG mixture. The results indicated that water absorption of WCS – XG was drastically improved in the presence of NaCl. It was also observed that NaCl caused a rapid decline in syneresis of WCS – XG mixture, while it was increased in WCS alone. The transparency of WCS alone was found to be increased after the addition of NaCl, whereas the same salt tends to make the WCS – XG mixture more transparent.