ABSTRACT...... Cuttlefish nidamental gland was blanched in boiling 5 per cent brine for 2, 5, 10 and 15 minutes to standardise the blanching condition. The sample blanched for 5 minutes was found to have the best sensory qualities. Subsequently, glands blanched under these standardised conditions were packed in cans in brine and were subjected to thermal processing in a retort. Thermal processing conditions were standardised by processing the cans under different retorting conditions. Out of these, the retorting temperature and the process time of 121.1°C and 25 minutes, respectively was found to be the best with respect to sensory qualities and could produce a commercially sterile product. The F₀ value attained by the process was 11.25 minutes with a total process time of 30.54 minutes. The storage study of the product over a period of three months showed that it has good stability at ambient condition and has a shelf-life of more than three months. The present investigation delineates that cuttlefish nidamental gland can be used for the production of ready-to-eat thermally processed product, which can be stored at room temperature for long periods.

KEY WORDS...... Cuttlefish, Nidamental gland, Heat penetration, Thermal processing, Sensory evaluation, Cephalopod