

### Abstract:

High pressure processing (HPP) is a non-thermal method of food preservation. This method employs pressures of 300 to 700 MPa to extend the shelf life and improve the safety of foods (Hoover et al., 1989) and has the demonstrated potential to inactivate micro-organisms (Bull et al., 2004) while maintaining fresh-like qualities of many food products. HPP is attracting interest as an alternative to other processing methods such as thermal processing. Benefits of HPP over thermal processing of food include:

- 'Instantaneous' and uniform transmission of pressure throughout the food. (Smelt, 1998, Baxter 2002).
- Retention of colour, flavour and nutrient content. (Baxter, 2002, Ludikhuyze et al., 2002).

But does this treatment prevent respiration in fresh produce? This work compares the respiration rates of fresh, untreated carrots and carrots after treatment with high pressure.