

### **Abstract**

Segmenting whole fresh fruits and vegetables into marketable products necessitates wounding the tissue. Plants have evolved a limited number of wound responses; groups of which are induced by different types of stresses. Pathogens, feeding insects and mechanical injuries induce specific and generic cohorts of physiological changes. Researchers have used certain aspects of these responses (e.g., wound-induced ethylene production) to produce beneficial responses (e.g., ripening stimulation by ethylene) that improve product quality. However, other changes are more difficult to control and continue to reduce product quality (e.g., wound-induced tissue browning). Fresh-cut lettuce will be used as a model system to explore the changes that occur as the result of wounding and how this knowledge can be used to devise strategies to mitigate the deleterious effects of wounding.