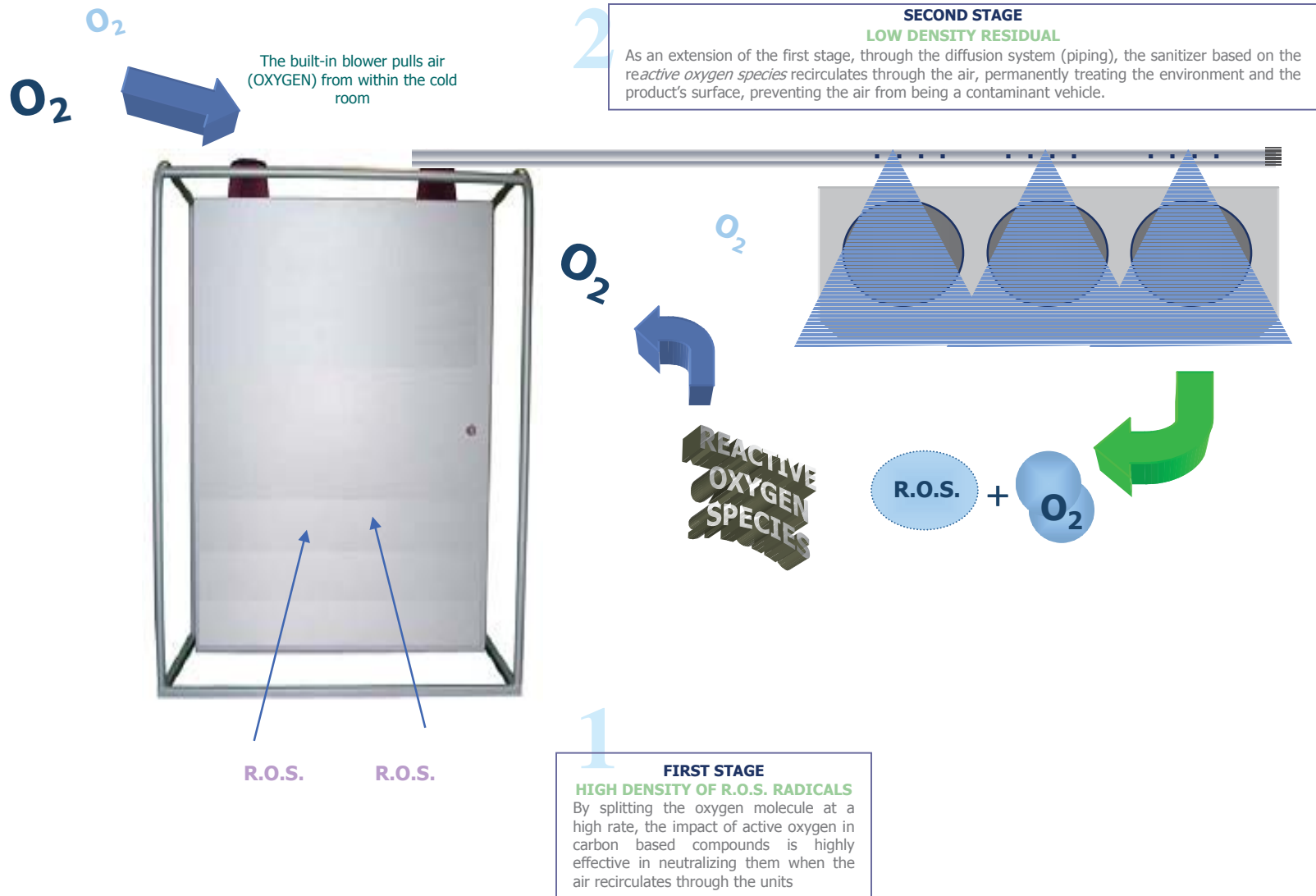


Improving Quality and Shelf-life of Fruits Using Reactive Oxygen Species Technology (ROS)

Dr. Yaguang Luo, Ph.D.
Produce Quality and Safety Lab
USDA ARS



Reactive Oxygen Generation

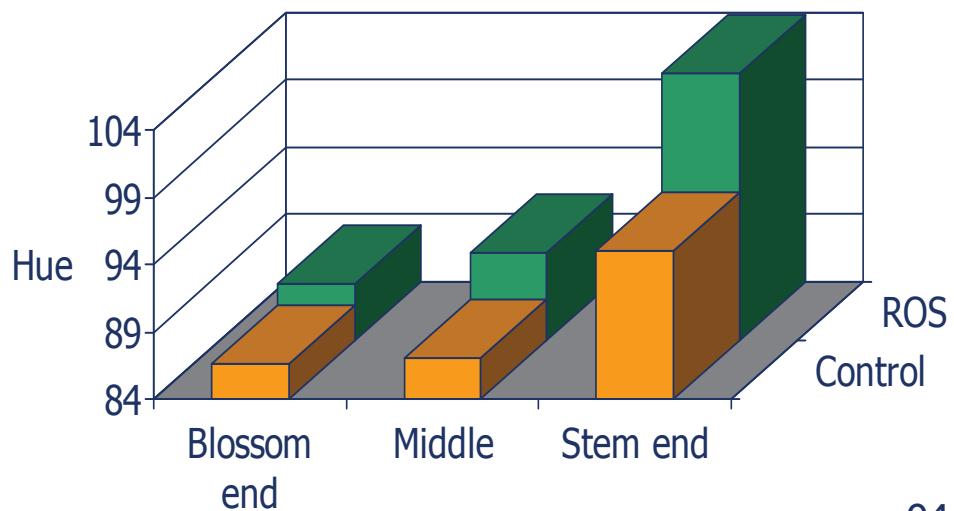


Control

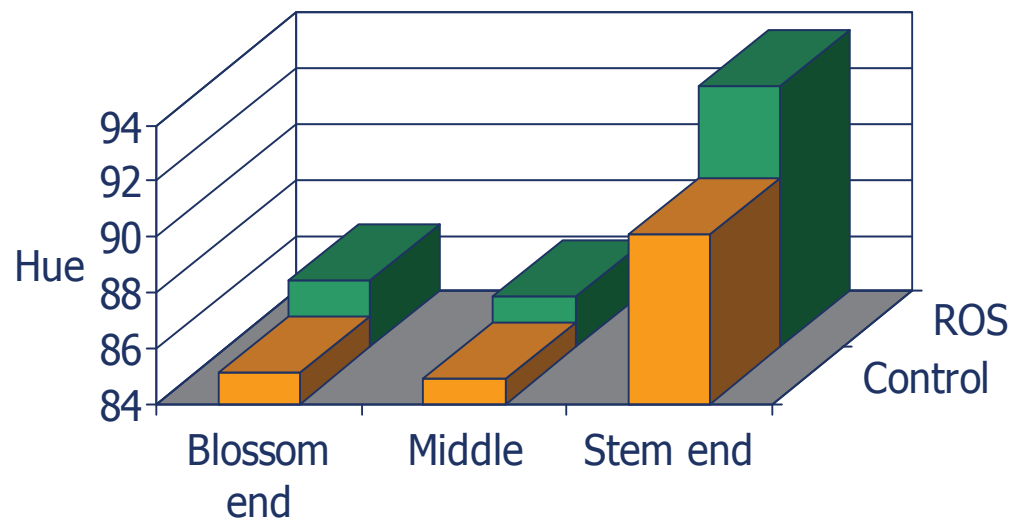
Treatment



Changes in Banana Color



14 days at 10 °C



25 days at 10 °C

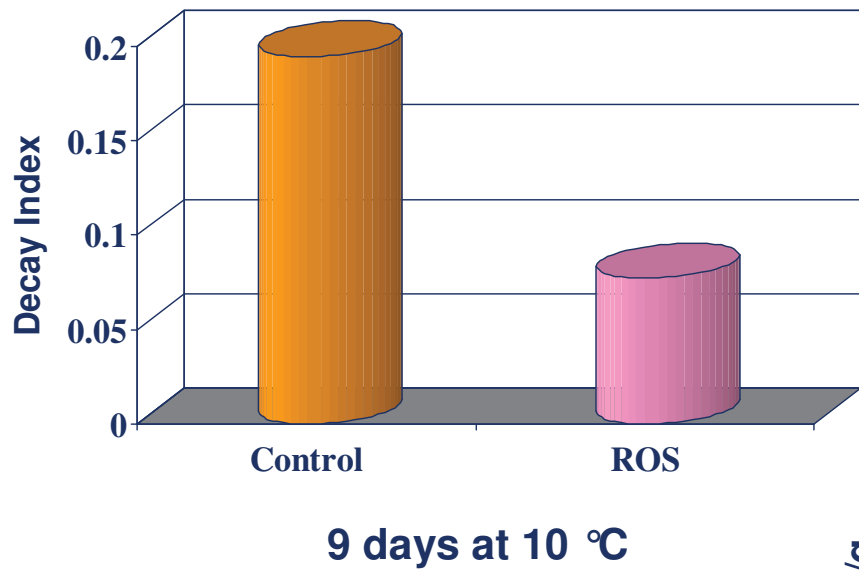
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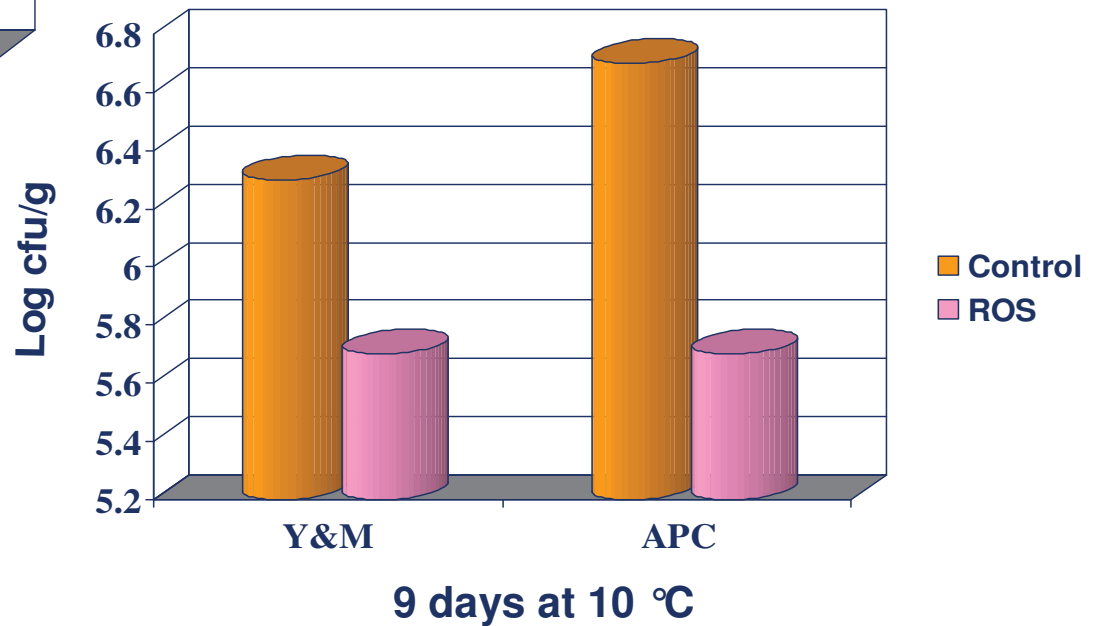
ROS



Decay Indices for Strawberries

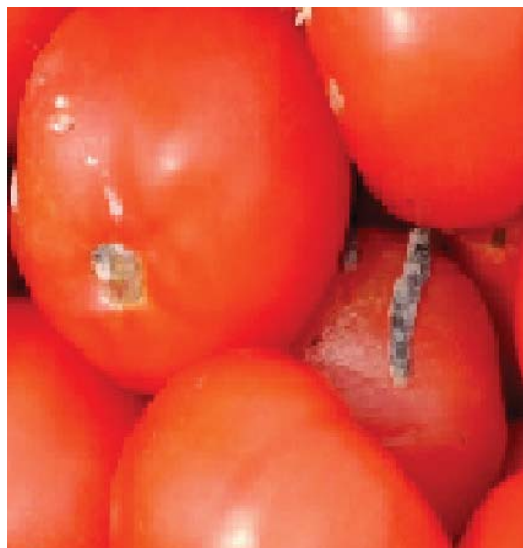


Microbial Populations on Strawberries





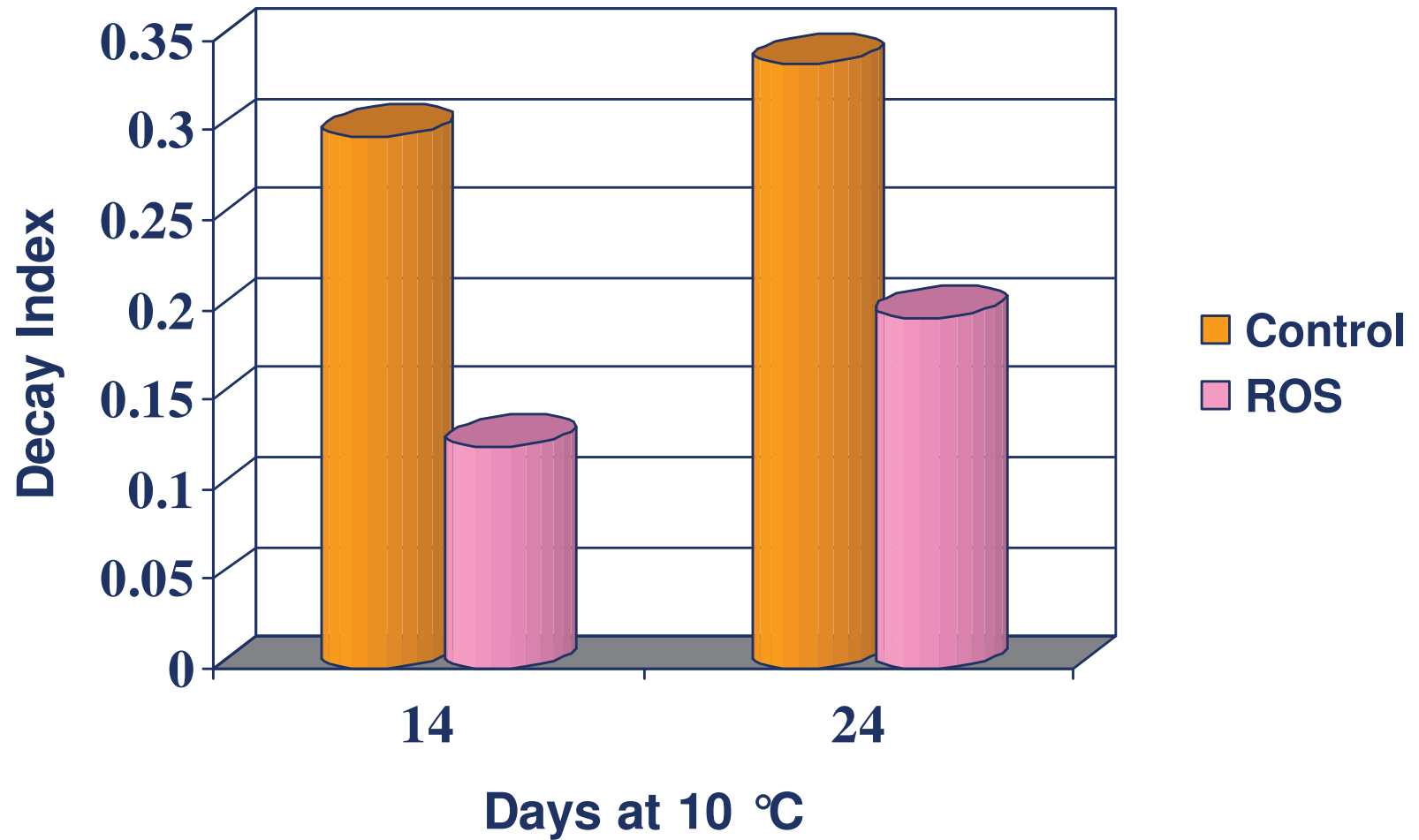
← **ROS**



← **Control**



Decay Indices for Tomatoes



2017 Experimental Trial

March 2017

Control



ROS



6 days at 10 °C

Control

ROS



8 days at 10 °C

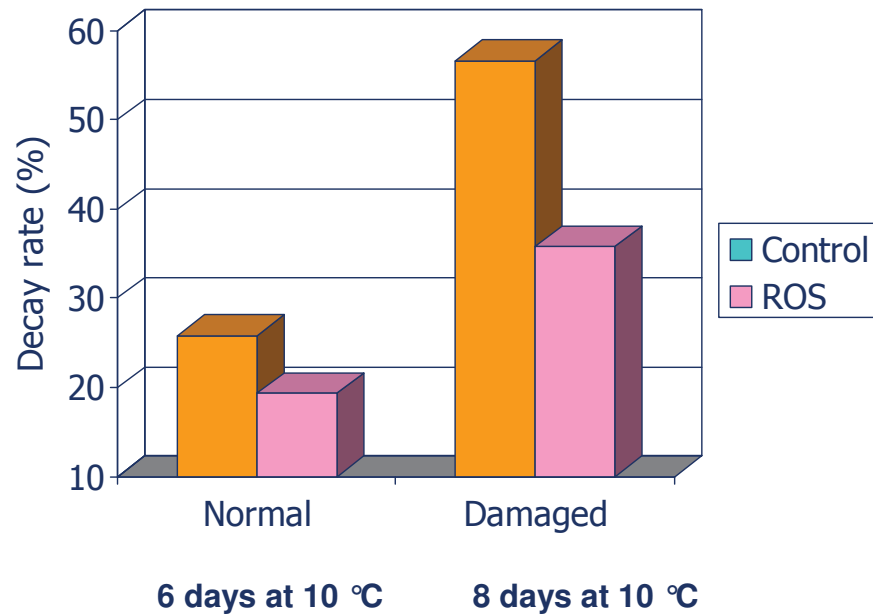
Control

ROS

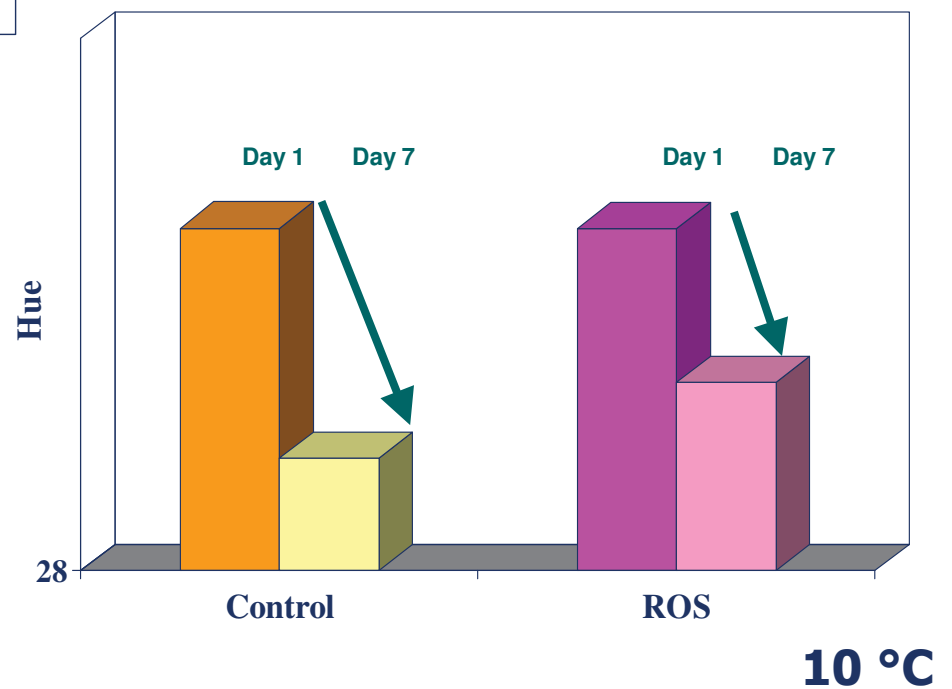


8 days at 10 °C

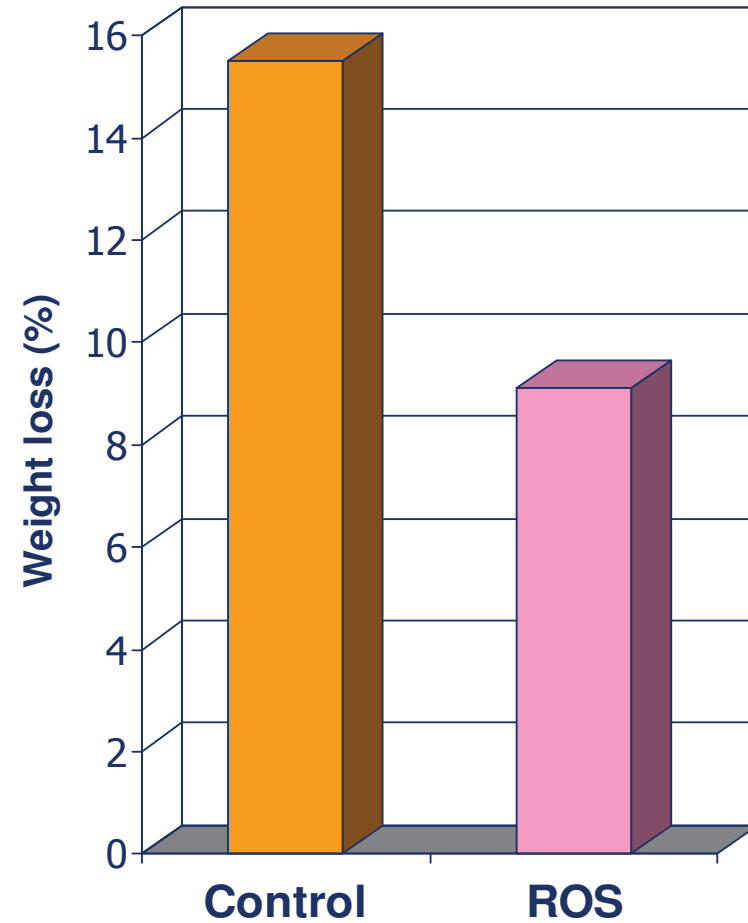
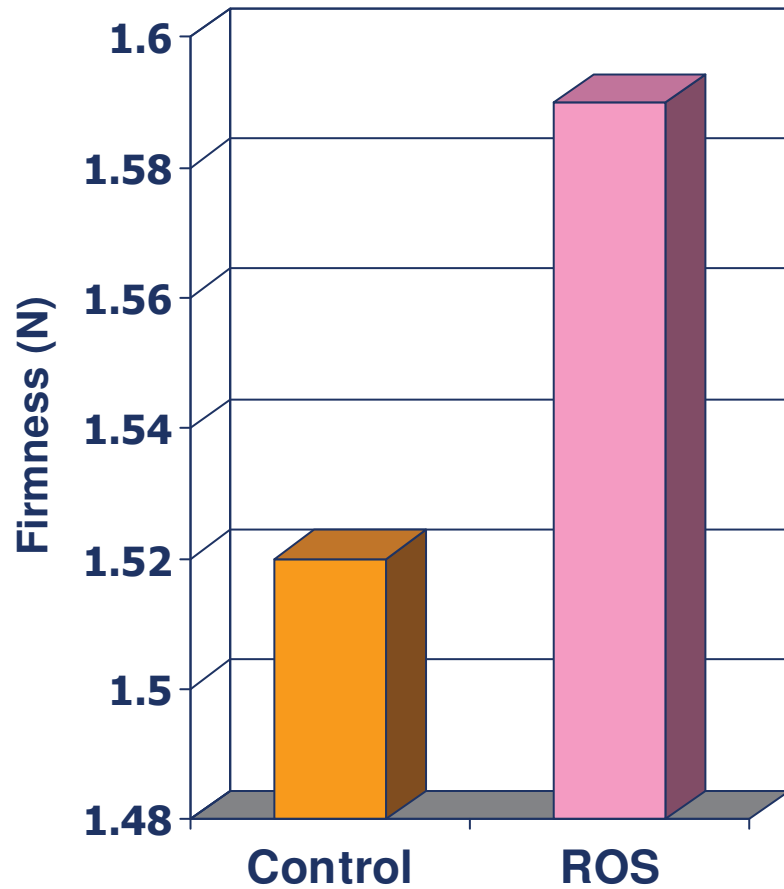
Changes in Strawberry Decay Rate



Changes in Strawberry Color



Strawberry Texture and Weight Loss

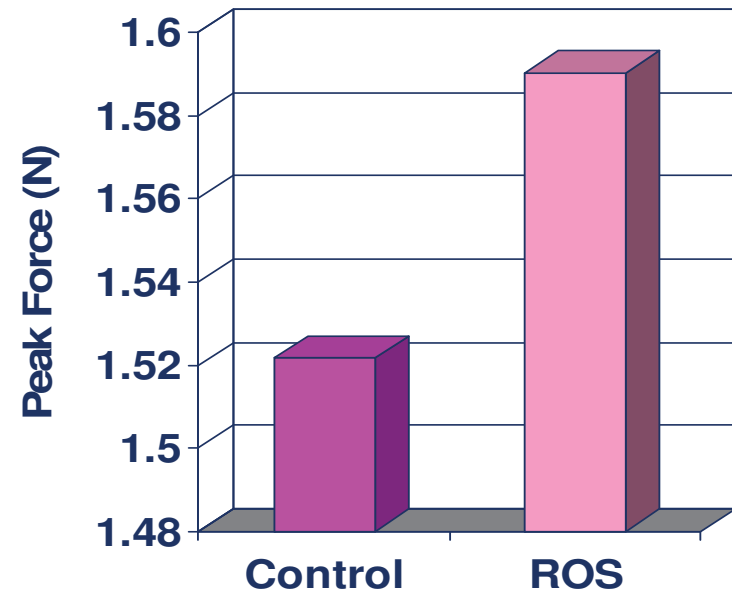
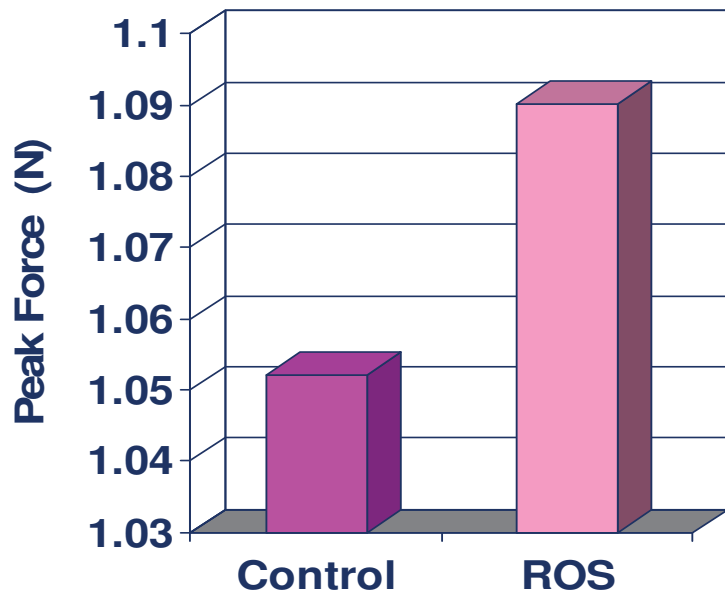


8 days at 10 °C

2017 Experimental Trial

July 2017

Strawberry Firmness after 1 and 7 Days of Storage



Strawberry Decay Rate after 7 Days of Storage

