**TYPES OF REDUCED OXYGEN PACKAGING (ROP)**

*Controlled Atmosphere Packaging (CAP)*

The concentrations of oxygen, carbon dioxide and nitrogen is altered. Temperature and humidity of product’s atmosphere is regulated. Some carbon dioxide release agents, oxygen scavenger and ethylene absorbers are classified as CAP.

*Vacuum Packaging*

The product is placed in an air-tight pack, the air is removed and the package sealed. By removing air, the levels of oxygen in the packaging are reduced, impeding the ability of microorganisms to grow and spoil the product.

*Modified Atmosphere Packaging (MAP)*

The atmosphere inside the package is modified to increase the shelf life and to maintain food quality. It involves displacing the air with controlled and desired mixture of gases. Generally used along with other operations like chilling.

*Sous Vide*

Food is placed in a plastic pouch and cooked in a water bath (1-7 hours) at regulated temperatures (131 to 140°F) for meat, higher for vegetables. The intent is to cook the item evenly, ensuring that the inside is properly cooked without over-cooking the outside to retain moisture.

*Cook Chill*

Cooking reduces spoilage microorganisms and inactivates enzymes that can lead to product quality loss. After cooking, foods are placed into impermeable bags. Air is expelled, and the bags are sealed. Bags are rapidly chilled and then placed into a refrigerator or freezer for storage.

Provided by the Food Processing Center at the University of Nebraska–Lincoln and the Lincoln-Lancaster County Health Department.