



## SHELF STABLE PIZZA (SSP)

**Shelf Stable Pizza (SSP)** has traditionally been challenging to develop but remains a consistently requested item by the Warfighter. Initial results indicate that the development of a shelf stable pizza is difficult but feasible. Pizza types, as well as focaccia and pita varieties, are part of the family of new shelf-stable bakery items that are currently being developed under the Next Generation Combat Bakery Items (NGCBI) project.

### WHY IS IT NEEDED?:

Current military doctrine requires troops to be highly mobile, agile and sustainable under any environmental condition, climate and location. Often times the Warfighter does not have the time to stop and prepare a meal. An eat-out-of-hand, eat-on-the-move capability is required for these situations, and the development of a high quality SSP will meet this requirement, while providing increased variety.

### TECHNOLOGY:

U.S. Army has exploited Intermediate Moisture (IM) and hurdle technologies to develop a family of multi-component sandwiches that are safe, stable and highly acceptable. Hurdle technologies employ a series of barriers to inhibit the growth of pathogenic and spoilage microorganisms, including bacteria, yeasts and molds. The barriers include manipulating and/or controlling water activity ( $A_w$ ), pH (acidity) and oxygen content inside the package. In-house developmental efforts to date focused on identifying dough conditioners/crumb softeners, replacing the very expensive sucrose ester; identifying shelf stable cheeses; preventing moisture migration; evaluating pizza crust options; demonstrating commercial manufacturability and developing flavor types.

### KEY FEATURES:

**Increased Variety:** SSP will enhance the variety of individual rations. Varieties which are currently being developed include: cheese, pepperoni, turkey pepperoni and Osmoroni.

**Enhanced Mobility:** SSP is eat-out-of-hand, eat-on-the-move and requires no preparation by the Warfighter.

**Shelf Life:** Warfighters deserve food that is as fresh tasting in the field. SSP is being developed maintain safety and quality at a shelf life of 36 months at 80° F (27° C).

### FUTURE EFFORTS WILL FOCUS ON:

Sensory, shelf life, chemical and microbiological testing as well as a technical demonstration to obtain Warfighter acceptability and feedback. Once the pizza development is fully matured, the pizza varieties will undergo large scale producibility and field testing.

### POINT OF CONTACT:

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