

## **Effects of Onion on the Quality Characteristics of Fructo-Oligosaccharide Strawberry Jam**

**Mun-Yong Kim, Soon-Sil Chun**

Dept. of Food and Nutrition, Sunchon National University

Influence of onion on the quality characteristics of strawberry jam substituted with 50% fructo-oligosaccharide for sucrose was investigated. Fructo-oligosaccharide strawberry jams with 10, 20, 30, 40% onion in place of strawberry were prepared, and their moisture content, pH, total acidity, color, spread, sweetness, reducing sugar, residual anthocyanin, instrumental texture and sensory characteristics were evaluated. Moisture content of fructo-oligosaccharide strawberry jams with onion was lower than that of strawberry-only control jam with an exception of 10% onion jam. As the addition rate of onion increased, pH increased, total acidity decreased. The lightness and redness decreased with addition of onion, while yellowness was increased. As the addition rate of onion increased, spreadmeter value increased. The sweetness of fructo-oligosaccharide strawberry jams decreased with addition of onion. More of onion added, reducing sugar content of fructo-oligosaccharide strawberry jams decreased. As the addition rate of onion increased, residual anthocyanin of fructo-oligosaccharide strawberry jams decreased. As the addition rate of onion increased, instrumental texture measured in 25% strain, hardness, fracturability, adhesiveness, gumminess, chewiness, resilience of fructo-oligosaccharide strawberry jams decreased, while springiness, cohesiveness of fructo-oligosaccharide strawberry jams with onion was higher than that of strawberry-only control jam with an exception of 10% onion jam. As the addition rate of onion increased, instrumental texture measured in 30% strain, hardness, adhesiveness, gumminess, chewiness, resilience of fructo-oligosaccharide strawberry jams was lower than that of strawberry-only control jam with an exception of 10% onion jam, while fracturability of fructo-oligosaccharide strawberry jams decreased with addition of onion, springiness, cohesiveness of fructo-oligosaccharide strawberry jams increased with addition of onion. In sensory evaluation, as the addition rate of onion increased, sensory evaluation of fructo-oligosaccharide strawberry jams decreased, obtained fairly good score to 10, 20% onion jam.