

# Conventional vs. Clean Label “Preservatives”

## *One solution to keeping foods safe for consumption*

### Synthetic/Conventional

### Clean Label

NaCl	Salt (reduces available water, $a_w$ )
Lactate, propionate	Cultured sugar, cultured milk, cultured wheat*
Diacetate, acetic acid	Vinegar* (dry vinegar, buffered vinegar)
Nitrite	Cultured celery* (convert nitrate to nitrite)
Erythorbate, ascorbate	Acerola cherry powder*
Sorbic acid	None (derived from rowanberries)
Benzoic acid	Cranberries, prunes, plums, cloudberries, cinnamon
Nisin (bacteriocins)	Cultured sugar, dairy solids
Phenolics, flavonoids	Fruit/spice extracts
Lactic acid bacteria starter cultures	Protective cultures Competitive microflora <i>In situ</i> acid/bacteriocin production

\*Clean label substitute with documented efficacy

SOURCE: KATHLEEN GLASS, FOOD RESEARCH INSTITUTE AT THE UNIVERSITY OF WISCONSIN-MADISON/2019 CLEAN LABEL CONFERENCE

**While clean label substitutes for conventional preservatives exist, some may require use levels above flavor threshold levels. Still, ingredient suppliers continue to seek alternative solutions with proven efficacy for these synthetic/conventional preservatives.**