

Introducing  
the first  
**clean label**  
breakthrough  
against *E. coli*  
and *Salmonella*



*New* **D**efenStat™



**NEWLY WEDS**® FOODS  
*inspiring new tastes*



# DefenStat™

*New DefenStat™ is the ONLY clean label ingredient for raw meat and poultry that addresses the three systemic failures leading to E. coli and Salmonella outbreaks, in a single intervention product.*



## Inhibits Pathogen Proliferation

DefenStat™ delivers significant intervention of proliferation in processing as well as pathogen growth known to occur in distribution.

## Reduces Cross-Contamination Risks

Even with careful handling and storage, mistakes can be made in food preparation, presenting multiple opportunities for cross-contamination. Utilizing DefenStat™ in uncooked meat and poultry during the processing phase delivers an extra layer of defense, should proper safeguards not be adhered to further down the product cycle.

**DefenStat™ application** reduces potential for cross-contamination **greater than 90%\***.

## Enhances Pathogen Susceptibility To Heat

*E. coli* and *Salmonella* present in raw meat and poultry can be eliminated if cooked to the proper temperature. However, bringing the product to that heat level is not assured without the use of a thermometer. Utilizing DefenStat™ can significantly reduce pathogen survival known to occur in non-HACCP (home) cook by making the organisms more susceptible to destruction by heat.

## An Industry **Breakthrough** That Redefines the Category

DefenStat™ is a response to 21st century demand among food industry professionals and consumers for more natural ingredients, including those supporting food safety and foodborne disease intervention. DefenStat™ stands alone as the first and only entirely clean label antimicrobial that defends against the effects of *E. coli* and *Salmonella* proliferation and survival.

- First of its kind DefenStat™ sets the industry standard in food safety
- Contains no synthetic or artificial ingredients







## DefenStat™ is a tremendous achievement in mitigating the effects of *E. coli* and *Salmonella* contamination

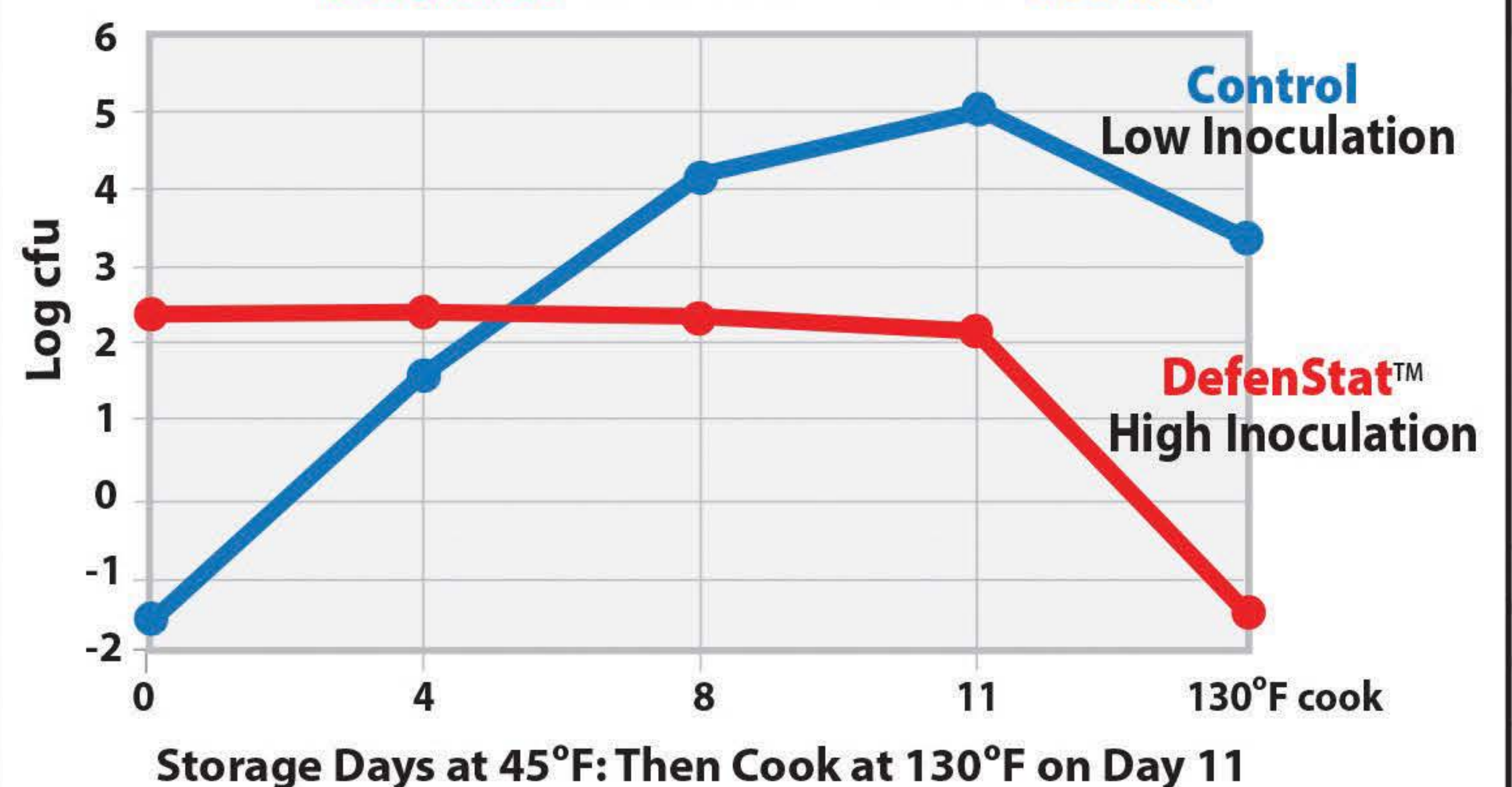
Overall food safety and more specifically the prevention of foodborne illness are priorities for government agencies and food industry professionals alike. In addressing these concerns, Newly Weds® Foods has demonstrated its capabilities in food safety and functional ingredient technology with the development of DefenStat™. Processors, food retailers, foodservice operators and consumers will all benefit from its broad use and application in raw meat and poultry products.

- Groundbreaking advance in the inhibition of *E. coli* and *Salmonella*
- Responsive to market demand for more consumer friendly ingredients and clean label products
- All ingredients "safe and suitable" and GRAS\*\*
- Does not affect finished product color, texture, flavor or overall quality
- Easy-to-use liquid can be applied directly to ground products and to whole muscle meats by marination



### Pathogen Proliferation and Destruction

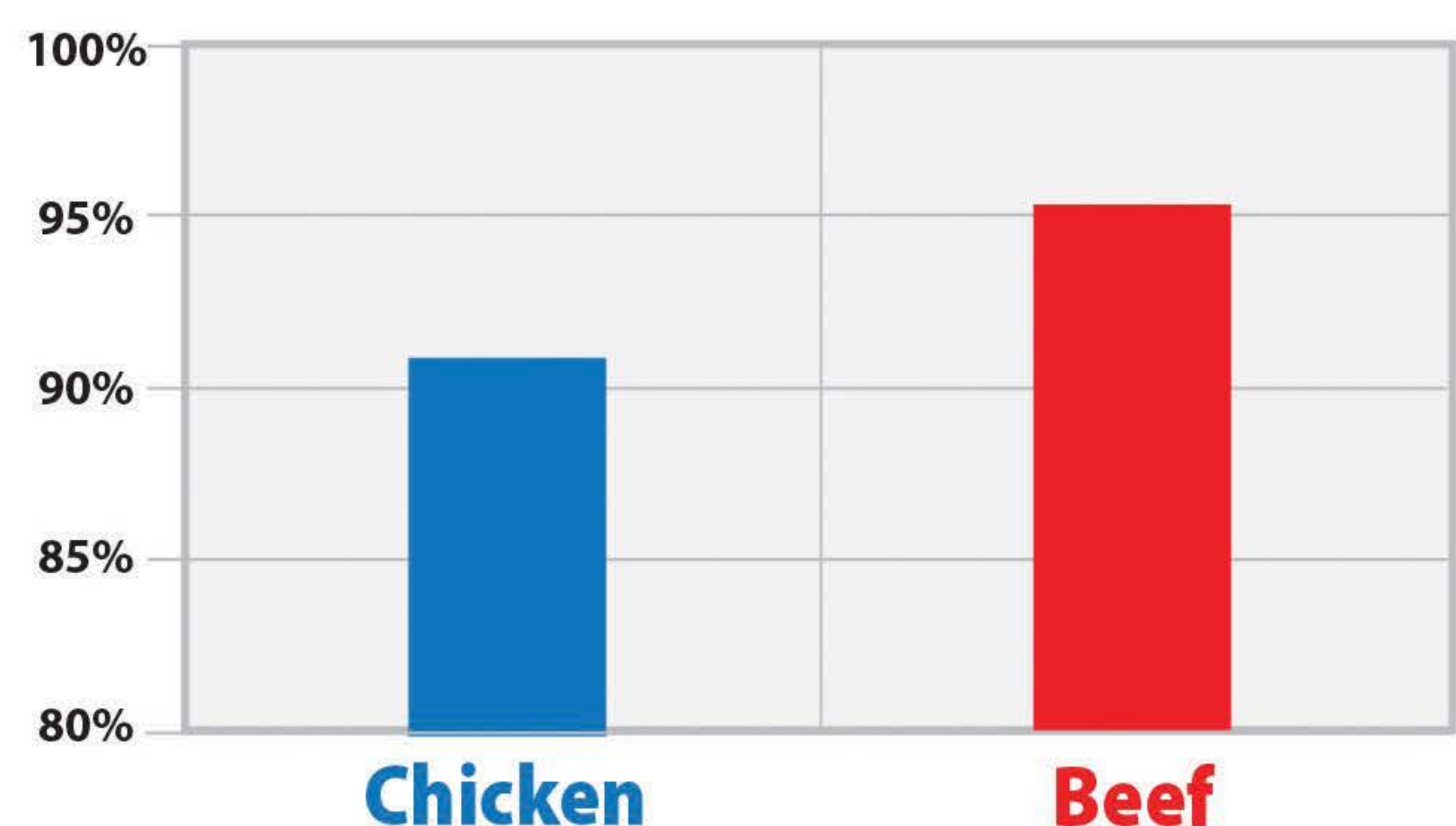
*Salmonella* in Ground Turkey: High Inoculation with DefenStat™ vs. Low Inoculation Control



DefenStat™ stops pathogen growth at non-GMP temperatures and promotes increased organism destruction with enhanced heat susceptibility.

### Pathogen Cross Contamination

Reduction (vs. control) in Pathogens Transferred from the Surface of Whole Muscle Chicken and Beef to Kitchen Sponge with DefenStat™



A USDA risk assessment attributed roughly 4% *Salmonella* in cooked chicken to cross-contamination in the kitchen. \*DefenStat™ reduced pathogen transfer 90+% in both chicken and beef. Based on independent/3rd party lab results.



# IsoStat™

## Products Group

*Look to our broad portfolio of food safety products and functional ingredients that deliver exceptional performance from shelf-life extension to pathogen inhibition.*

**DefenStat™** – Clean label ingredient for use in raw meat and poultry products providing protection against *E. coli* and *Salmonella* through limitation and destruction. Inhibits pathogen proliferation, reduces potential for cross-contamination and enhances the organism's susceptibility to heat.

**NatureGuard™** – Rosemary extract with antioxidant properties for shelf-life extension benefits. Newly Weds® Foods' proprietary Supercritical Fluid Extraction process uses no chemical solvents which results in a cleaner, higher-purity product with more consistent quality.

**Ional™ Line** – Sodium or potassium citrate buffered to a pH of 5.6. Dry, free-flowing powder acts as a general antimicrobial or, with Diacetate added is effective against *Listeria*. Can also provide color stability, yield enhancement and chelation in water brine systems.

**NatureIn™ Line** – Clean label liquids based on buffered and reacted vinegar or in combination with buffered and reacted lemon juice concentrate. Acts as a general antimicrobial and is effective against *Listeria*. Can be added directly to the product surface or in brines for marination.

**DV™** – Clean label antimicrobial product of concentrated dry vinegar, in a free-flowing powder form. This form allows for greater application flexibility and can be used in brines for marination, as a surface treatment, as a direct addition or even blended into seasonings. Acts as a general antimicrobial and is effective against *Listeria*.

**TenderIn™ Line** – Clean label phosphate alternative based on lemon juice concentrate. Can be used in brines for marination, as a surface treatment, as a direct addition or even blended into most seasonings.

**Myosol™ Line** – Potassium-based liquid phosphates formulated for instantaneous reactivity and solubility in cold water.

**AdvanStat™ Blends** – Customized blends of ingredients including antimicrobials, antioxidants, other functional products and/or flavors. Combines general antimicrobial capabilities, pathogen inhibition, color stability and water retention for an overall improvement on shelf life.



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[newlywedsfoods.com](http://newlywedsfoods.com)

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