

# EFFICACY OF PEROXYACETIC ACID

TIME VS. CONCENTRATION  
VS. TEMPERATURE AGAINST  
BACTERIA, YEASTS, MOLDS, AND SPORES

# Intro

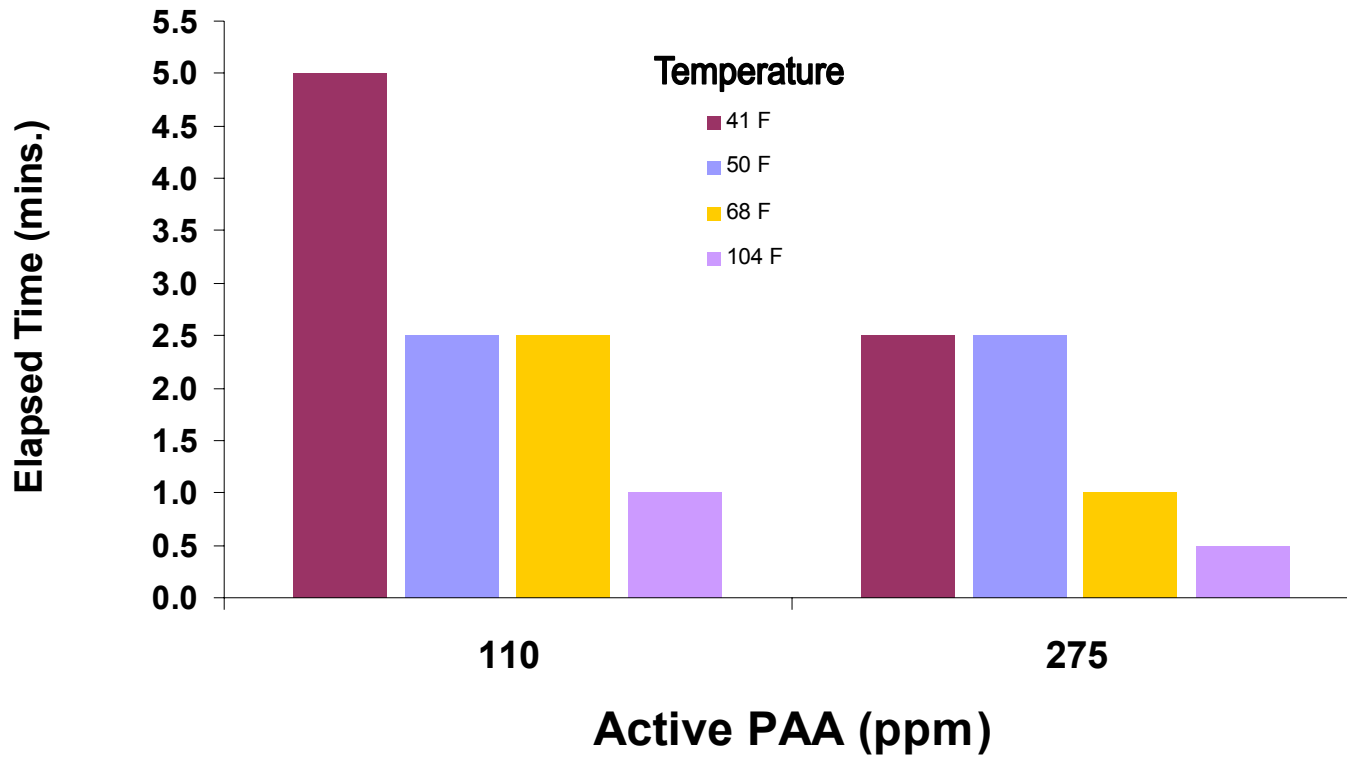
These charts include 6 bacteria species, 5 yeasts, 4 molds, and 6 types of spores. The 100% Kill Times represent the time to completely eradicate (100%) of each indicated species. This chart is unusual in that it does not report the time needed to reduce the given organism to particular log reductions, which typically would be 5-6 logs.

All challenge organisms started with levels of the challenge from  $10^7$  to  $10^8$  populations.

These challenge tests would be appropriate for peroxyacetic acid formulas containing approx. 5.5% PAA and 26-27% hydrogen peroxide. Other formulas may not perform to the standards and results reported herein.

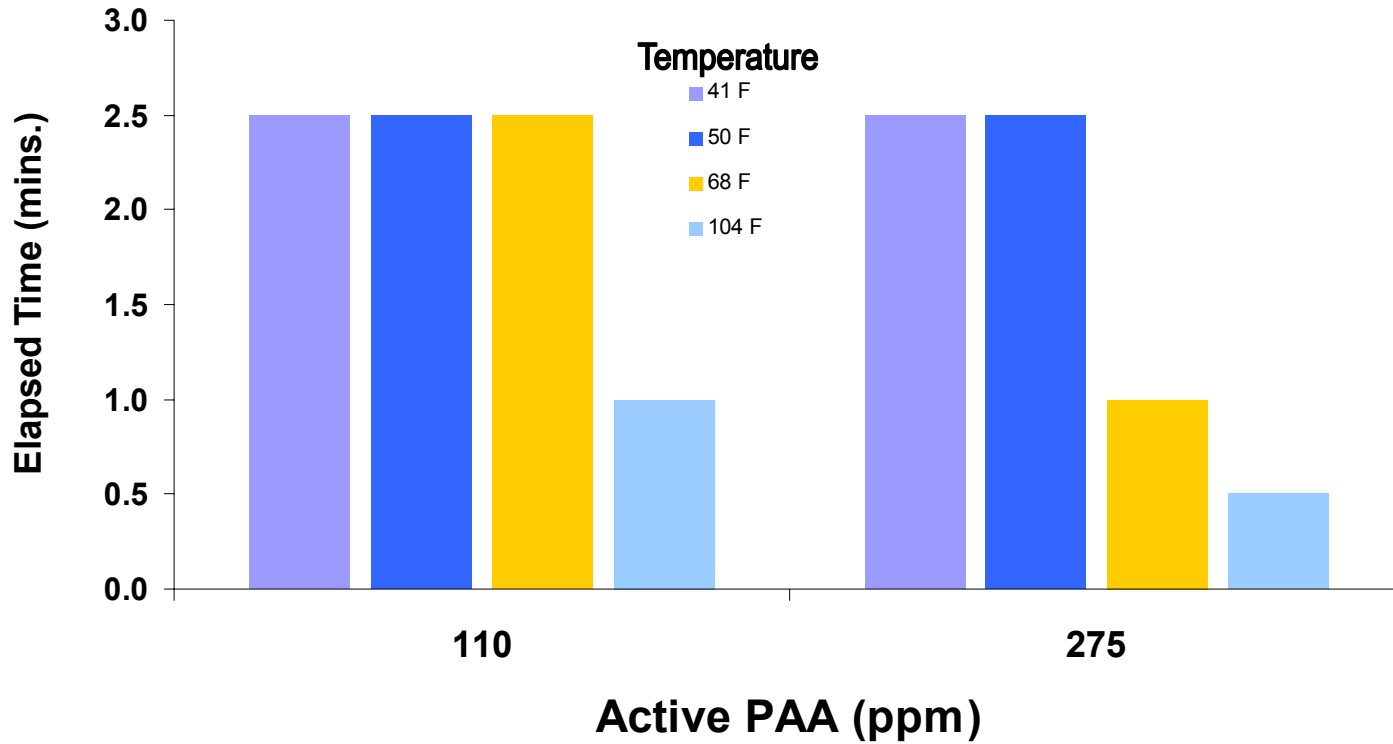
Staphylococcus aureus-GP bacteria

### 100% Kill Time of Staphylococcus aureus (gram-positive bacteria)



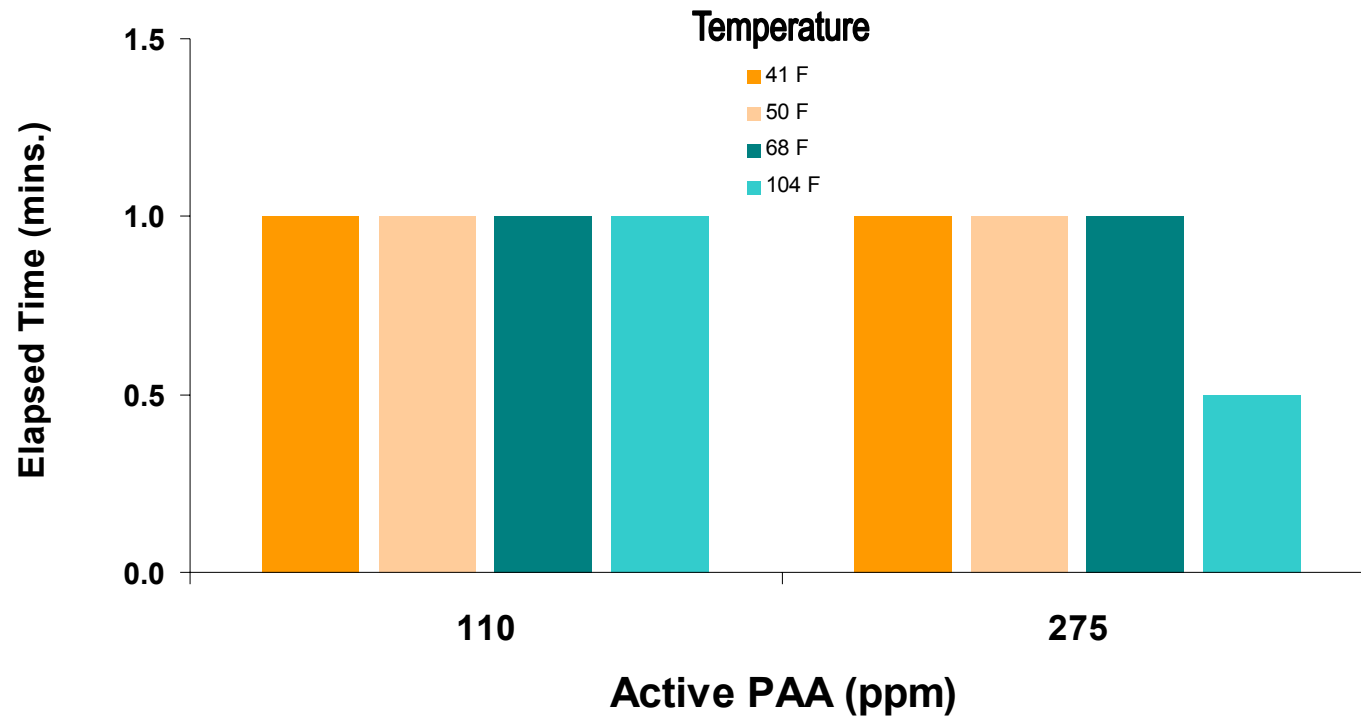
Streptococcus faecalis-GP bacteria

**100% Kill Time of Streptococcus faecalis**  
(gram-positive bacteria)



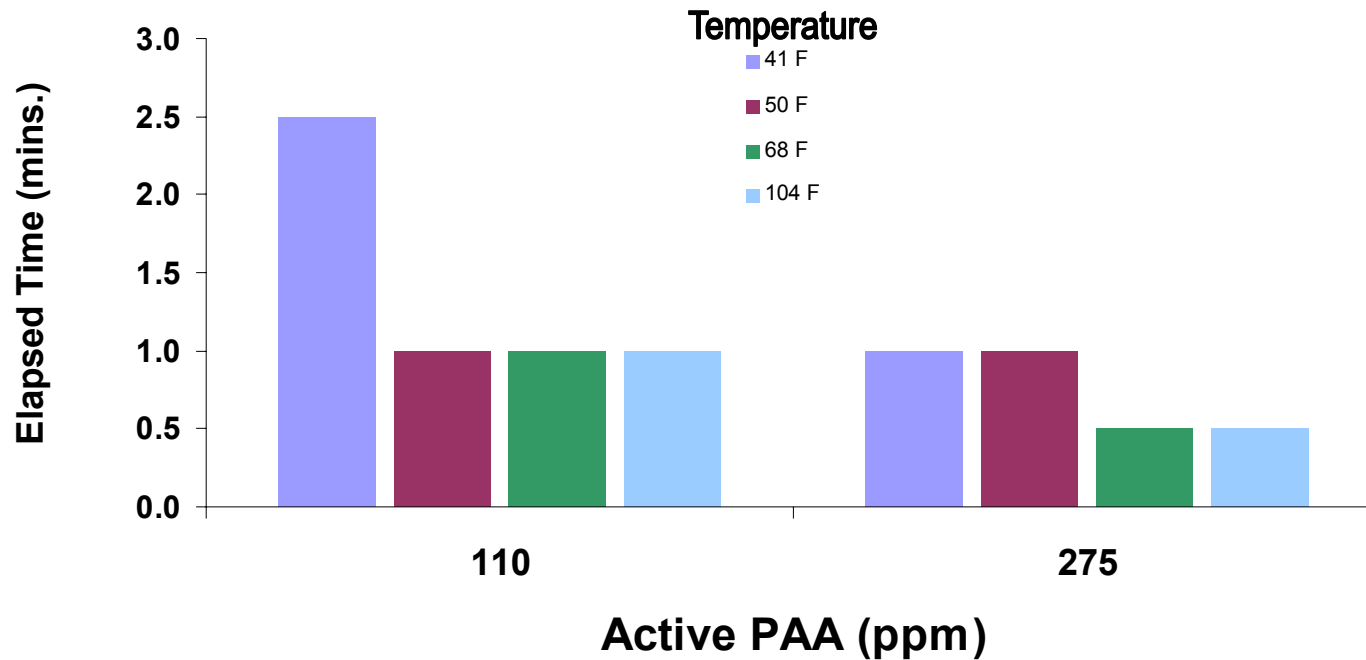
Aerobacter aerogenes-GN bacteria

### 100% Kill Time of Aerobacter aerogenes (gram-negative bacteria)



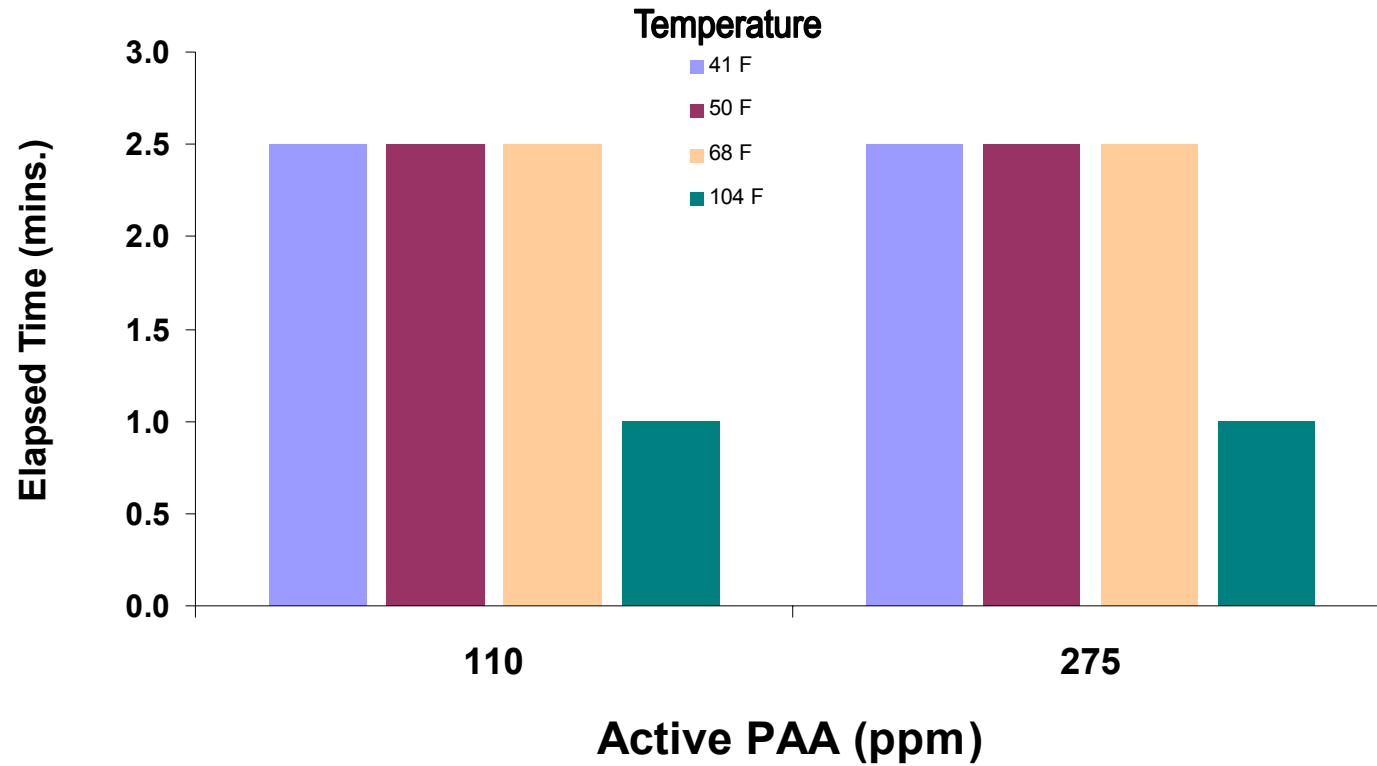
# Pseudomonas aeruginosa-GN bacteria

## 100% Kill Time of Pseudomonas aeruginosa (gram-negative bacteria)



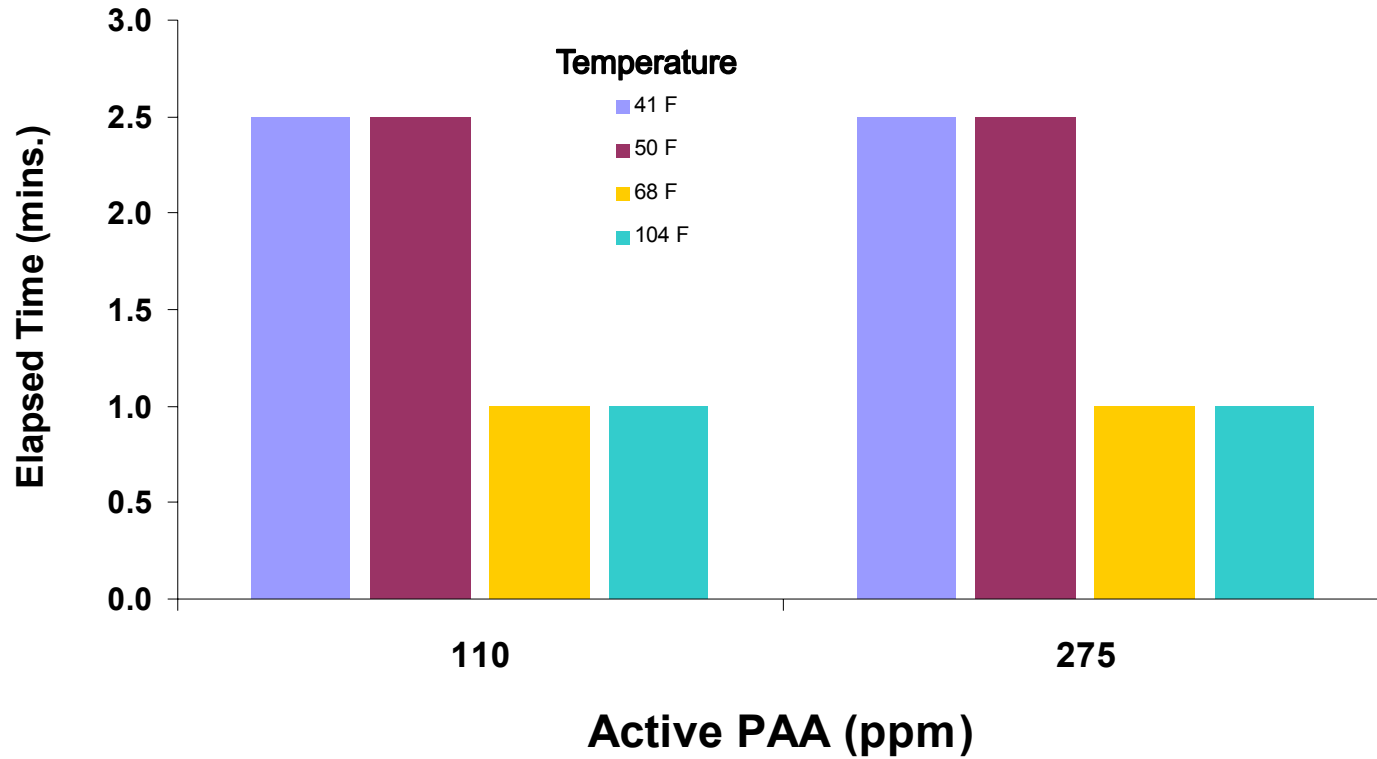
# Salmonella typhimurium-GN bacteria

## 100% Kill Time of Salmonella typhimurium (gram-negative bacteria)



# Salmonella dublin-GN bacteria

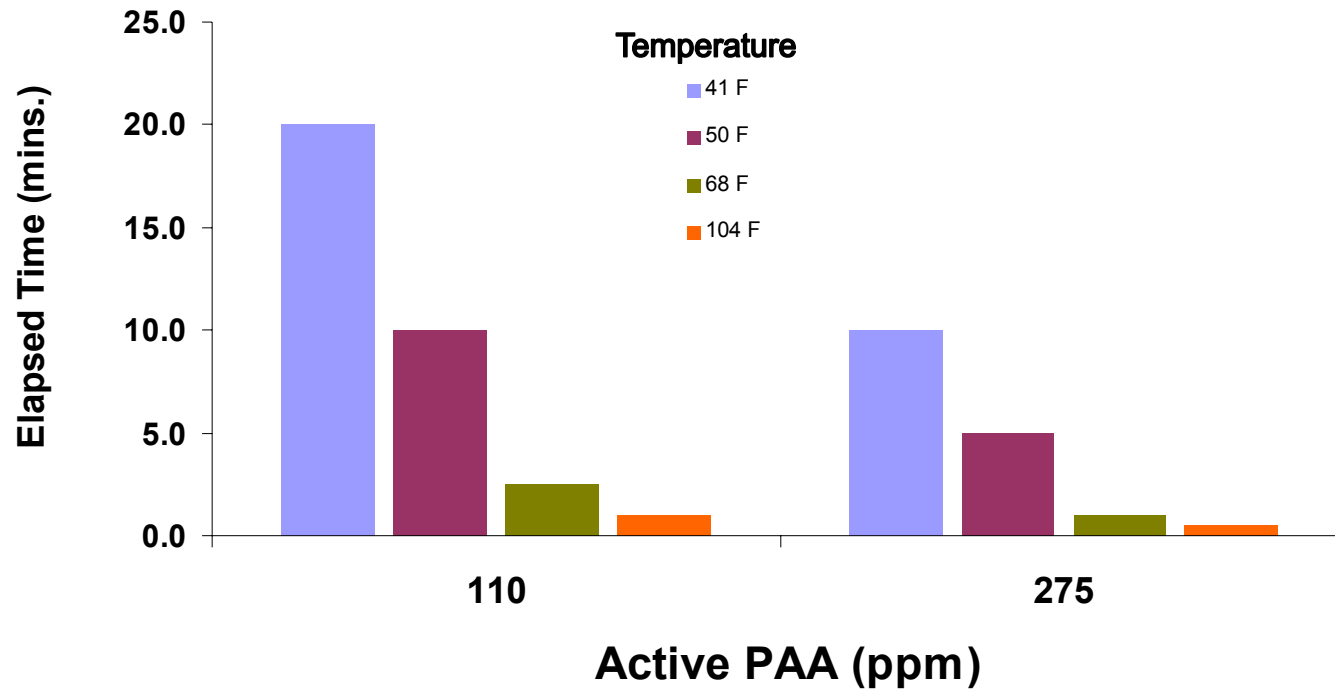
## 100% Kill Time of Salmonella dublin (gram-negative bacteria)





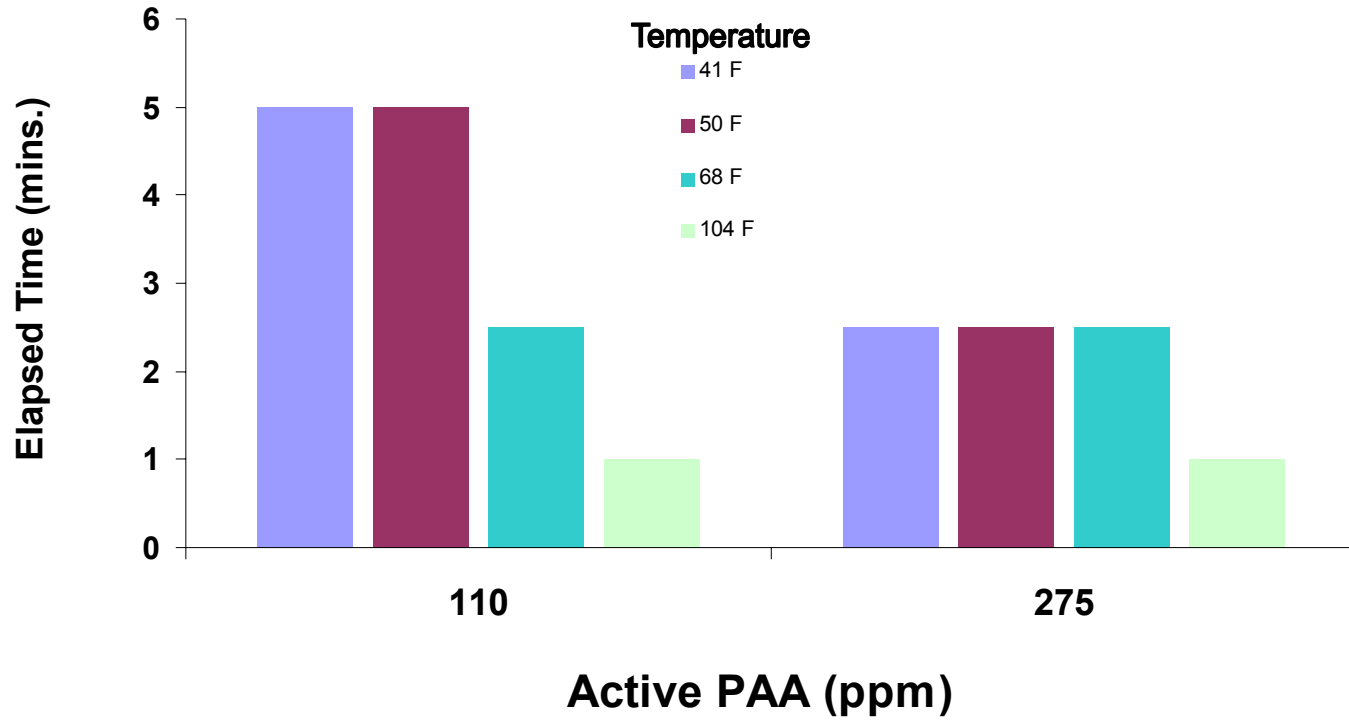
# Sacchromyces cerevisiae-yeast

## 100% Kill Time of Sacchromyces cerevisiae (yeast)



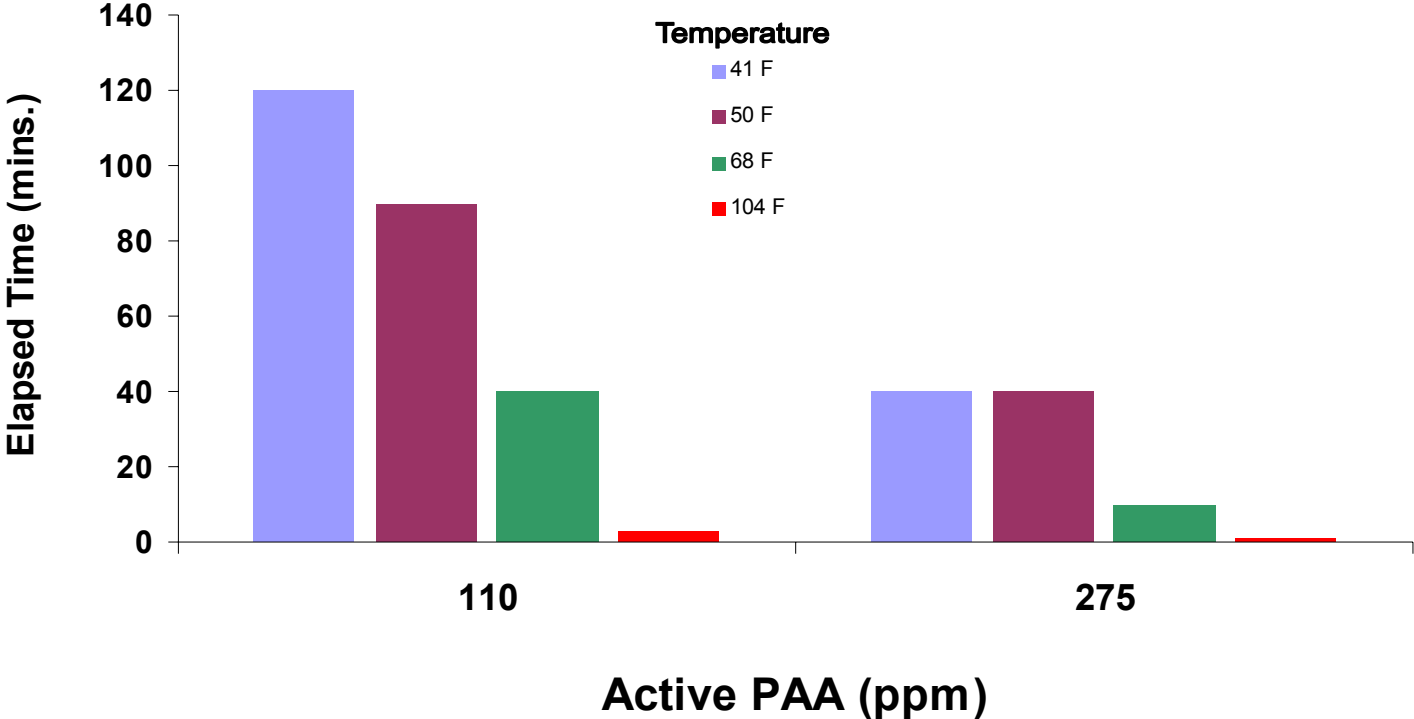
# Sacchromyces diastaticus-yeast

## 100% Kill Time of Sacchromyces diastaticus (yeast)



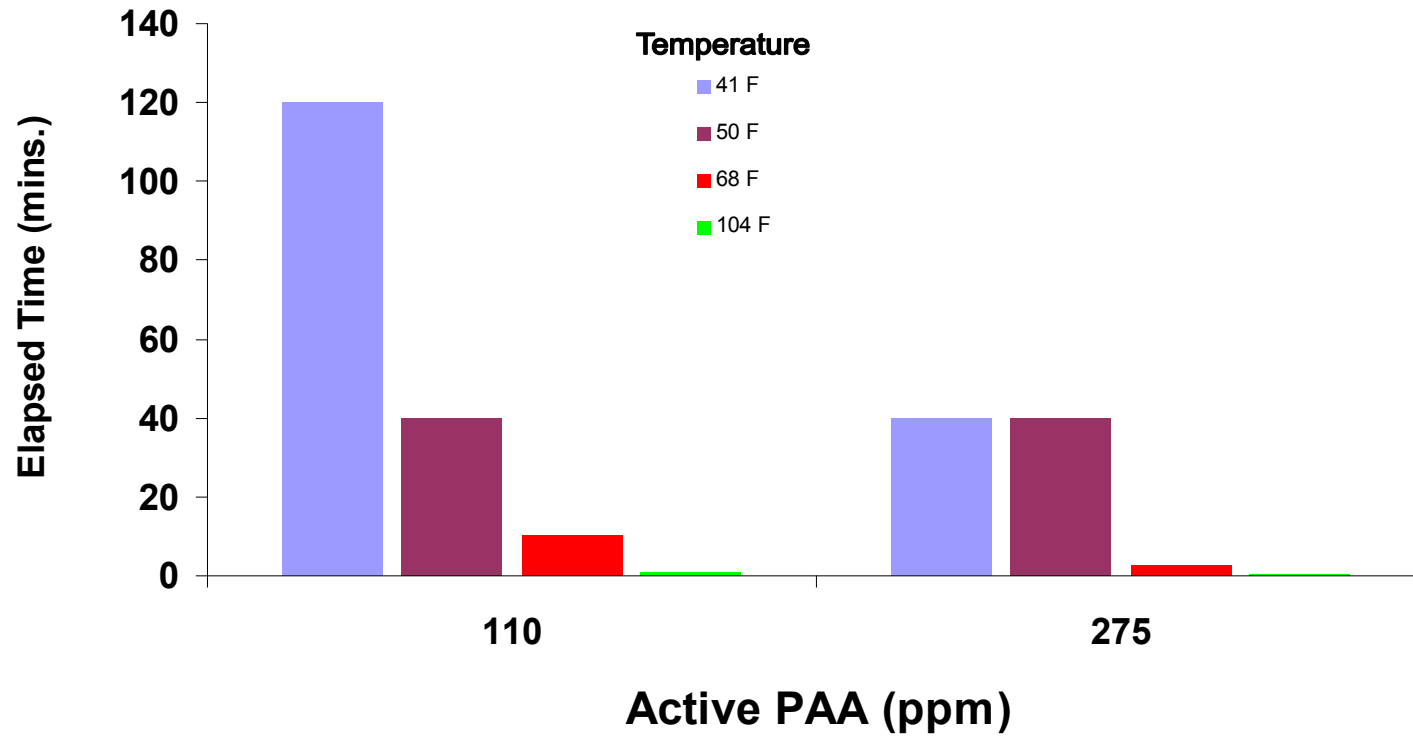
Candida mycoderma-yeast

**100% Kill Time of Candida mycoderma**  
(yeast)



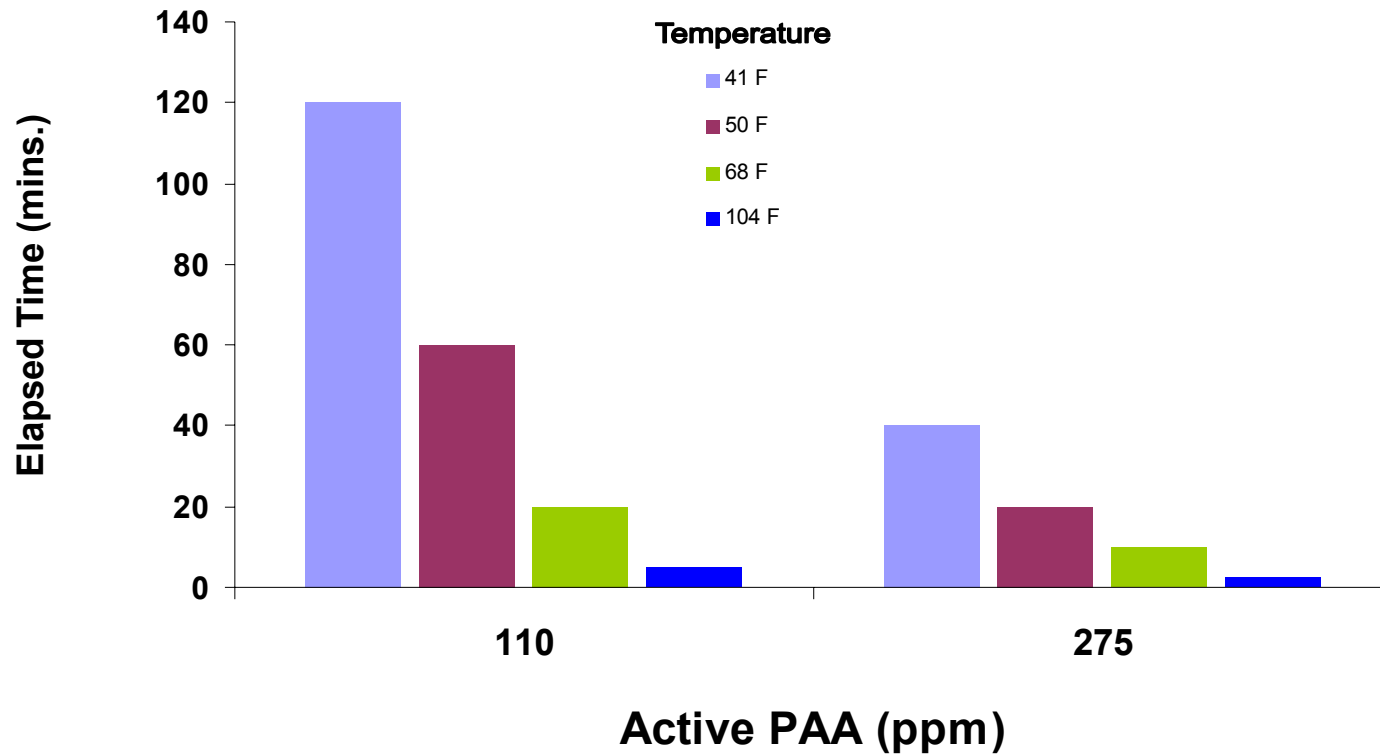
# Hansenula anomala-yeast

## 100% Kill Time of Hansenula anomala (yeast)



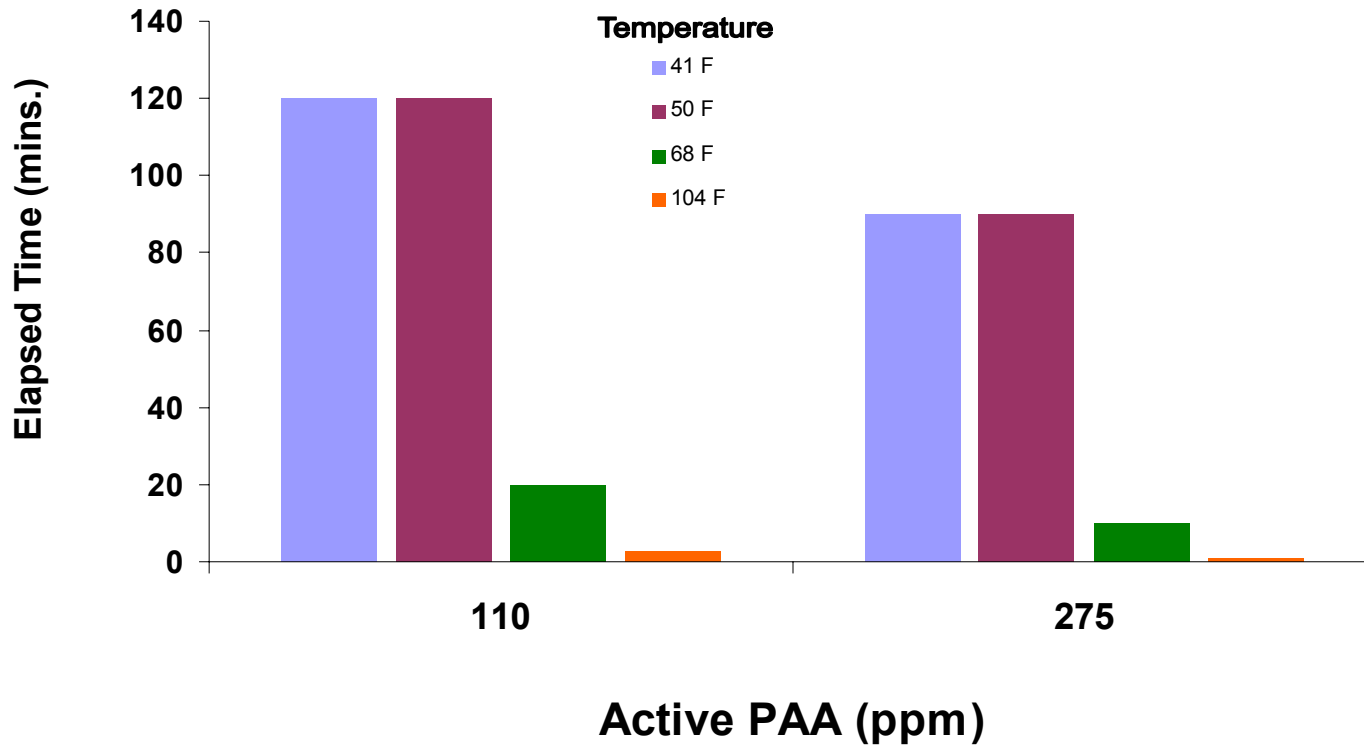
# Pichia membranaefaciens-yeast

## 100% Kill Time of *Pichia membranaefaciens* (yeast)



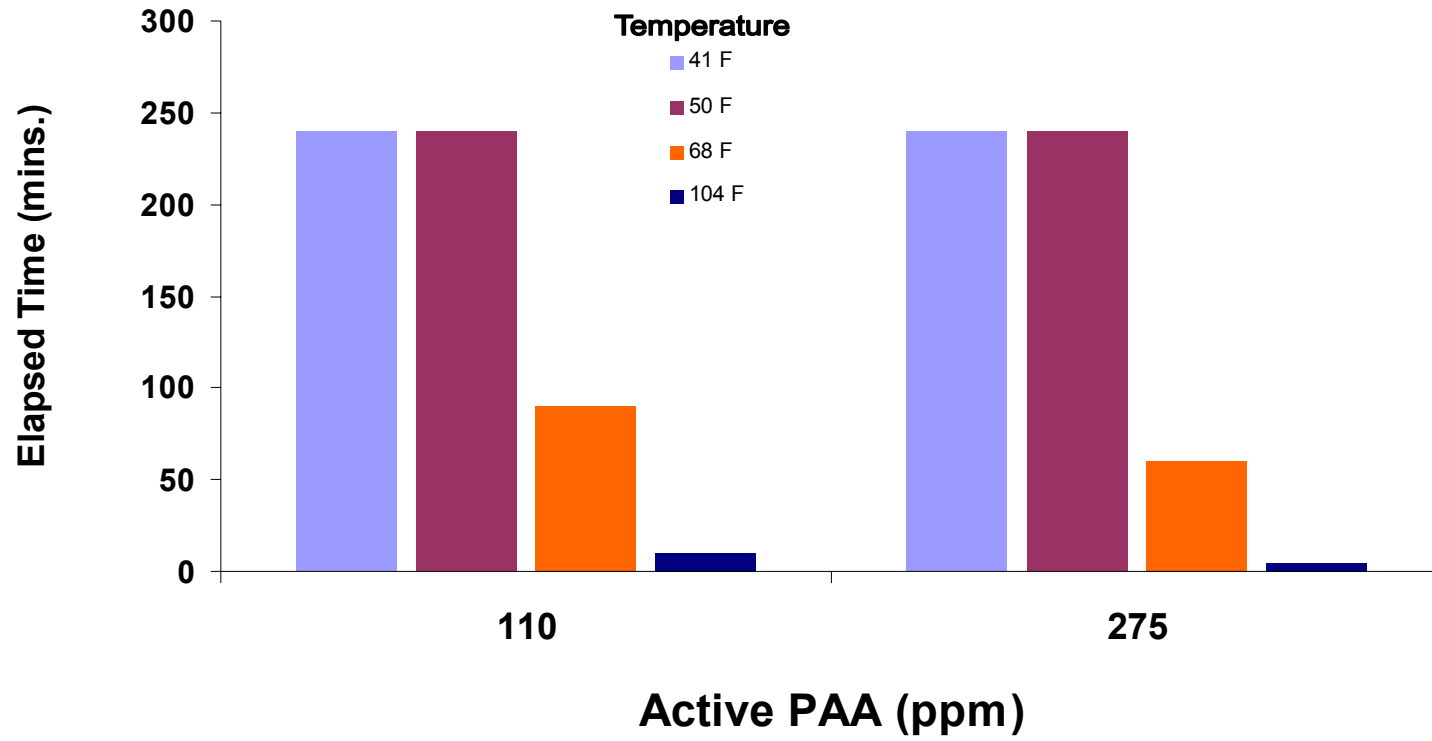
# Penicillium camerunense-mold

## 100% Kill Time of *Penicillium camerunense* (mold)



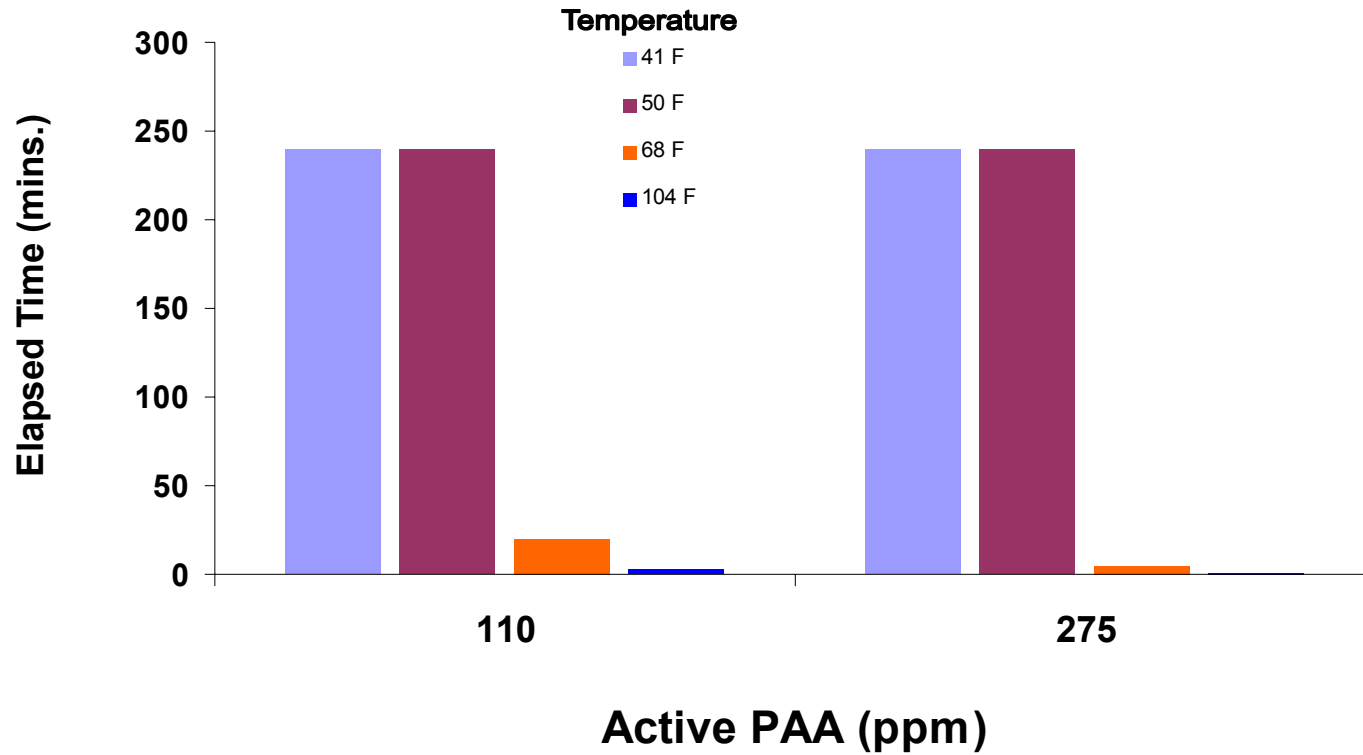
# Aspergillus niger-mold

## 100% Kill Time of Aspergillus niger (mold)



# Mucor spececium-mold

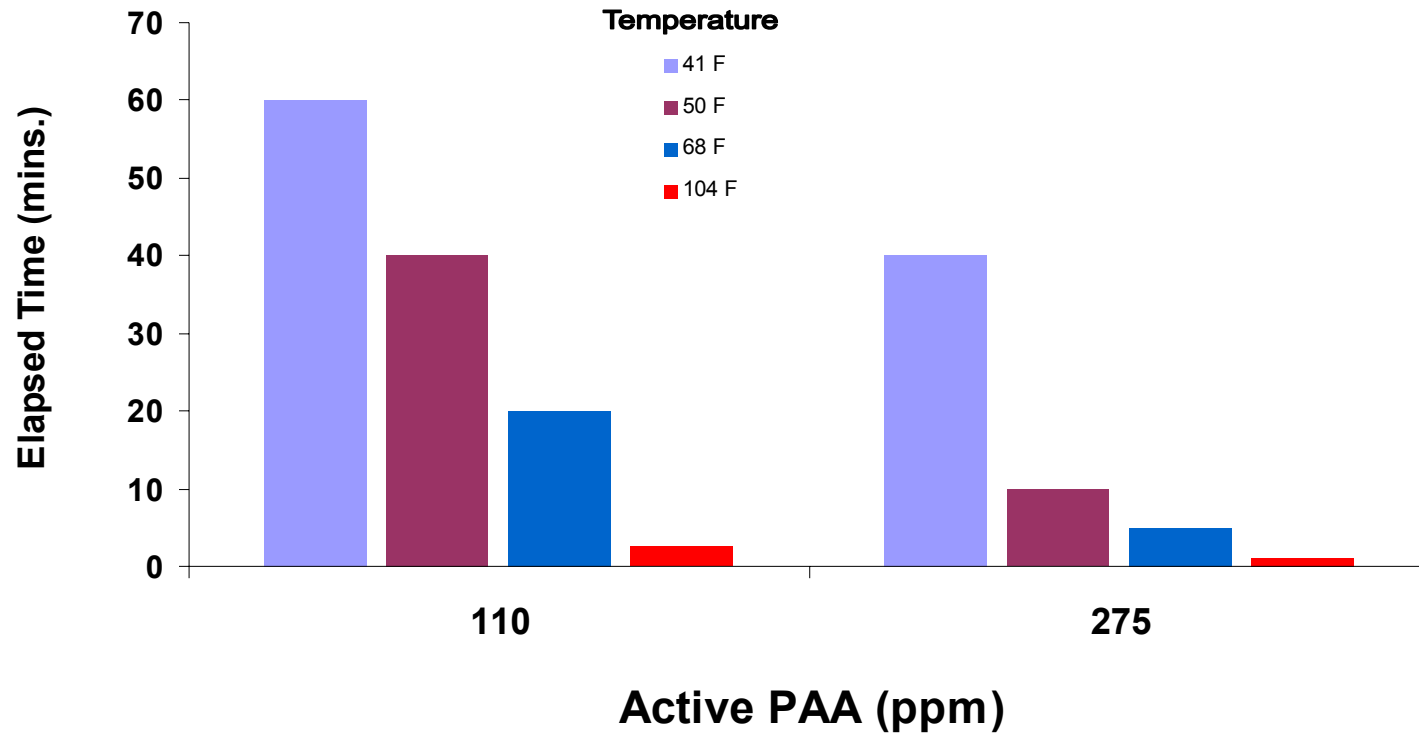
## 100% Kill Time of Mucor spececium (mold)





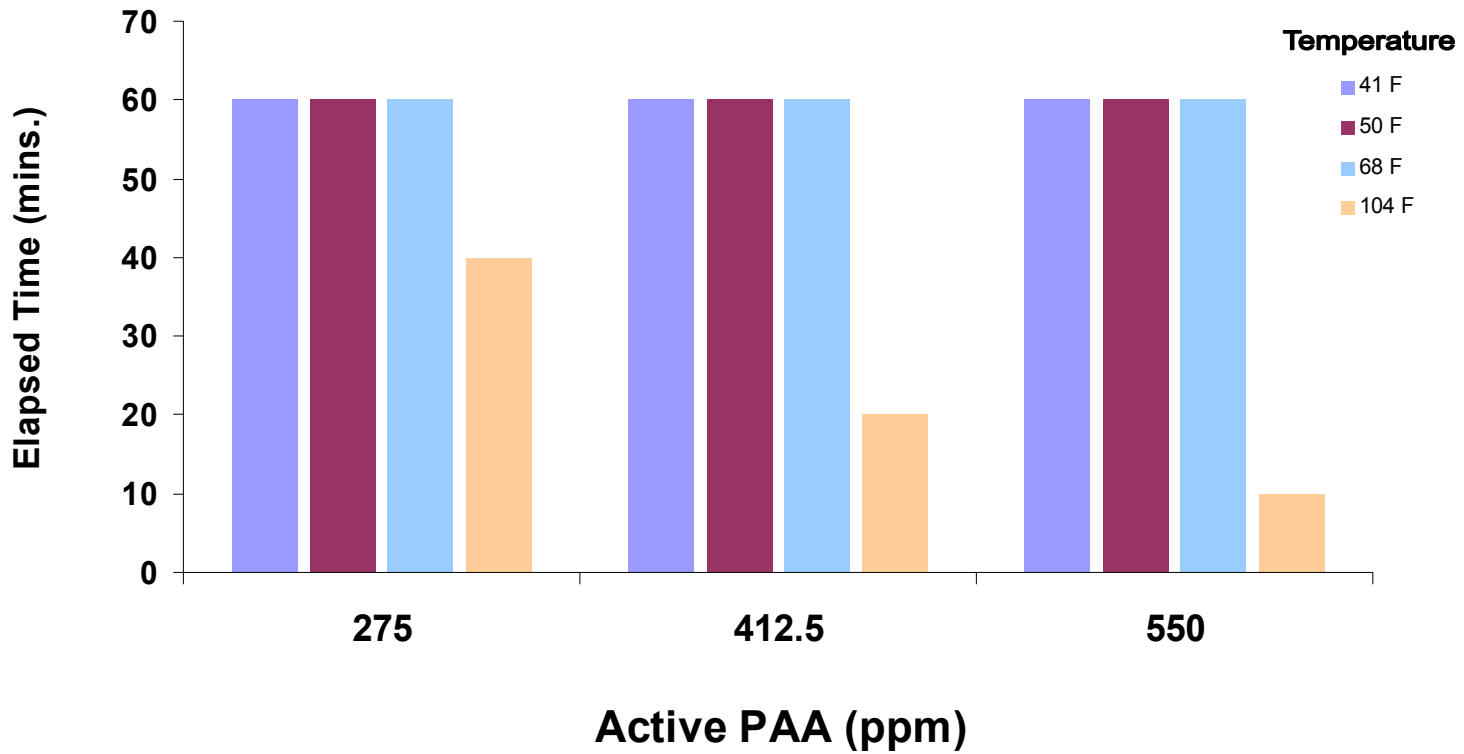
# Geotrichum candidum-mold

## 100% Kill Time of *Geotrichum candidum* (mold)



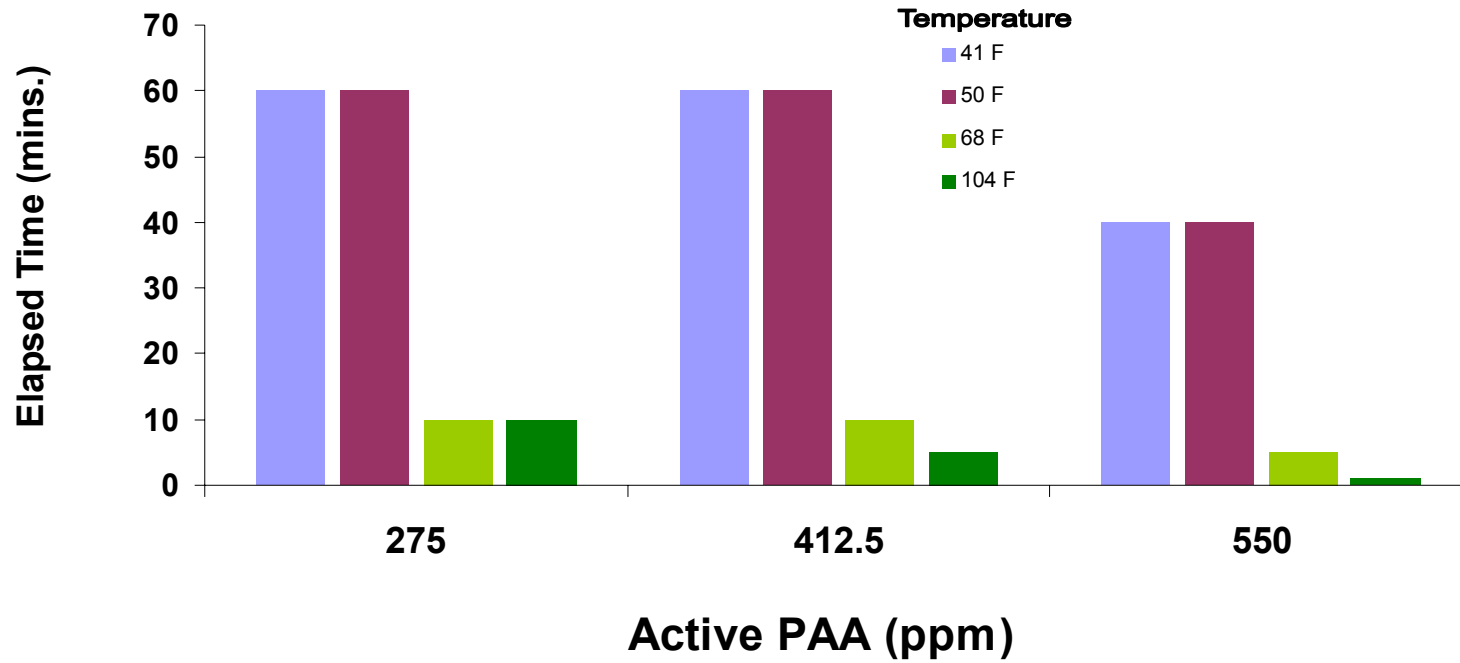
Bacillus cereus-spores

### 100% Kill Time of Bacillus cereus (spores)



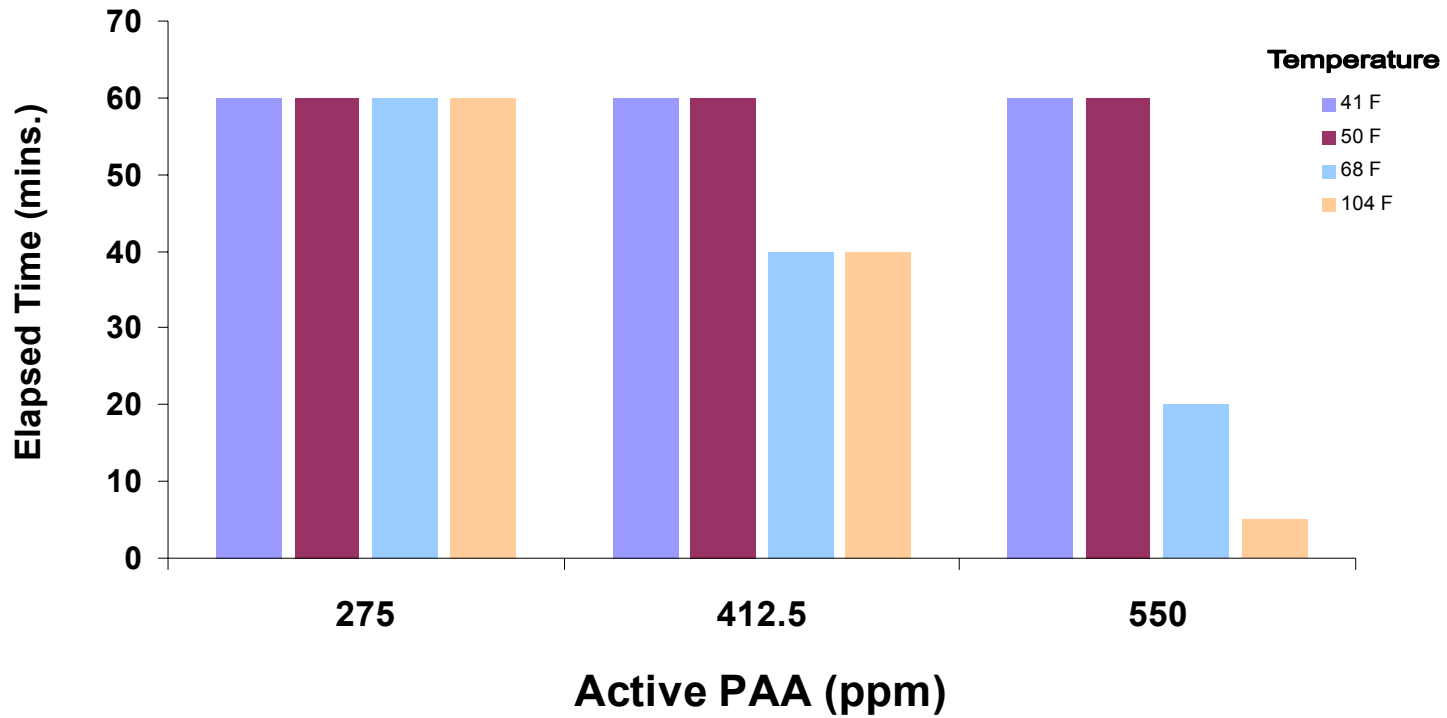
Bacillus subtilis-spores

### 100% Kill Time of Bacillus subtilis (spores)



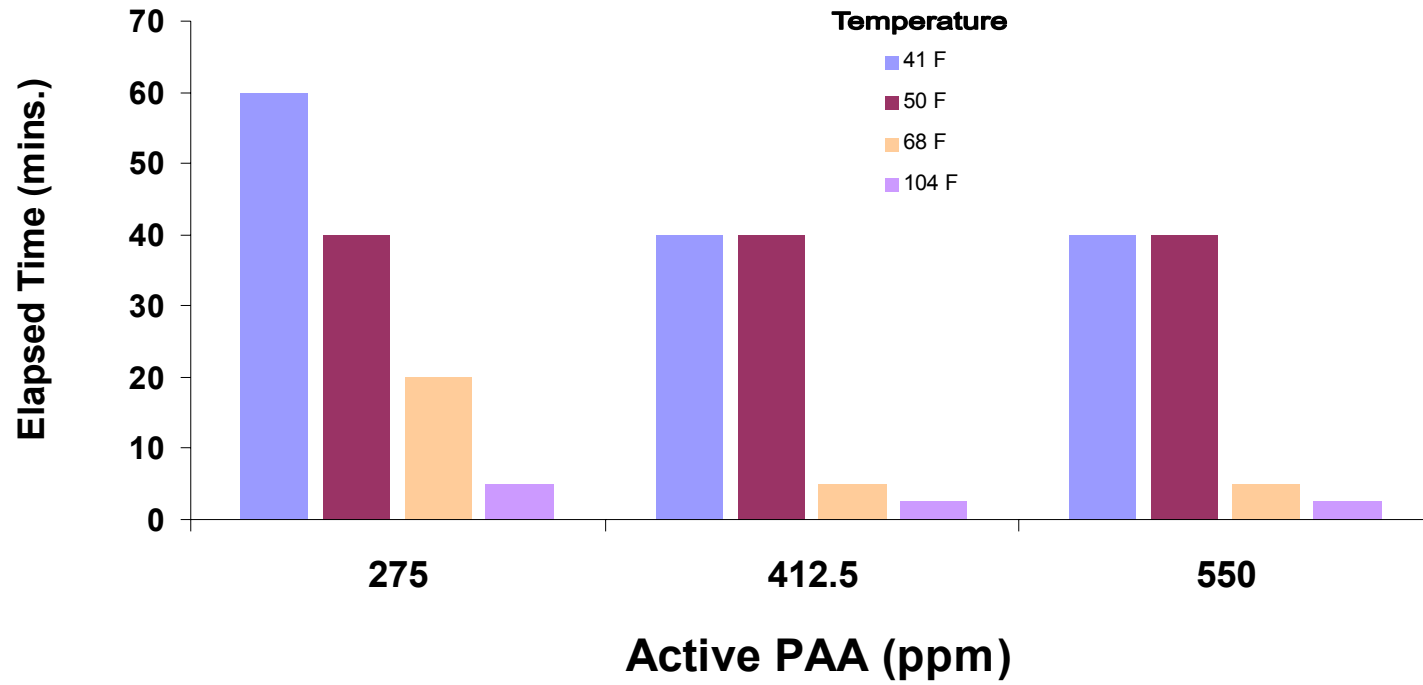
Bacillus mesentericus-spores

**100% Kill Time of Bacillus mesentericus**  
(spores)



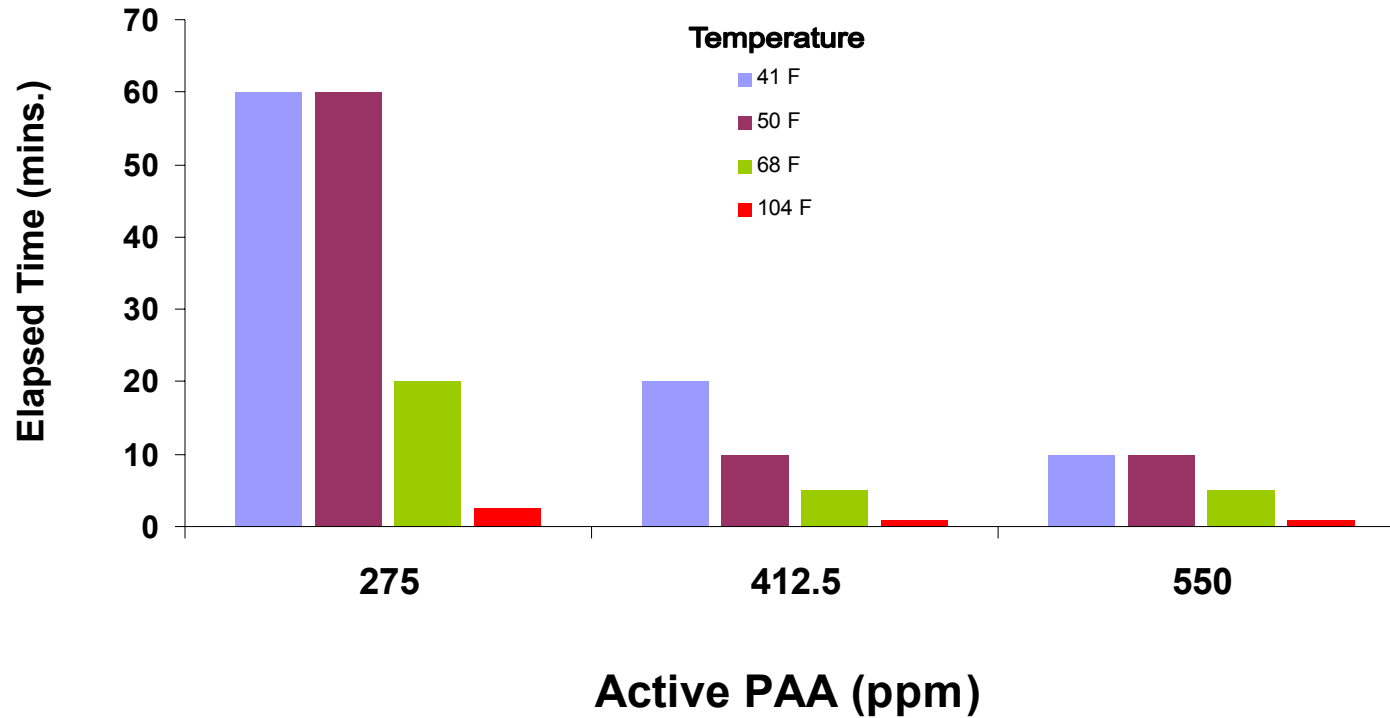
# Thermophilic species-spores

## 100% Kill Time of Thermophilic spore-formers



# Clostridium perfringens-spores

## 100% Kill Time of Clostridium perfringens (spores)



Clostridium specialis-spores

**100% Kill Time of Clostridium spec.**  
(spores)

