# Optimum and limiting factors affecting the multiplication of important UK foodborne pathogens

| Temperature | | |
|---|---|---|
| **Minimum temperature** | | **(Except Listeria and Yersinia 0°C - but very slow)** |
| **Maximum temperature** | | |
| **Optimum temperature** | | |
| ***Scientific danger zone*** | | |
| ***Legal danger zone*** | | |

**NB Vegetative forms of pathogenic bacteria will be destroyed at, for example, temperatures of 55°C for 2 hours**

| pH value | | |
|---|---|---|
| **Minimum pH** | | ***(Staphylococcus aureus/Salmonella)*** |
| **Optimum pH** | | |

| $A_w$ | | |
|---|---|---|
| **Minimum** | | ***(Staphylococcus aureus/Salmonella)*** |

**NB Moulds grow at lower pH and $a_w$ values**

**No reports of mycotoxin production below an $a_w$ value of 0.80**