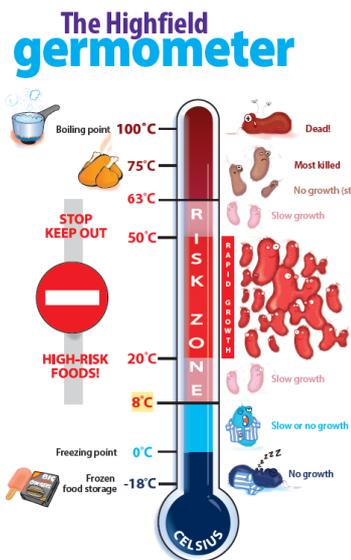
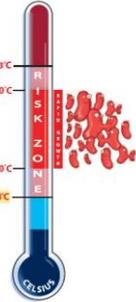


The following updates have been made to the 38<sup>th</sup> edition of this publication.

Page No	Update comments
<p>Back cover</p>	<p>The Highfield germometer image has been updated: 5°C has been updated to 8°C.</p> 
<p>7</p>	<p>The Highfield germometer image and associated text has been updated: 5°C has been updated to 8°C.</p> <p><b>Requirements for bacterial multiplication</b> Bacteria responsible for causing food poisoning need the following conditions to enable them to multiply and produce <b>toxins</b> (poisons). Toxins may be released in our body or in food. Some toxins cannot be destroyed by normal cooking and are very dangerous.</p> <p><b>WARMTH:</b> The best temperature for the multiplication of most food poisoning bacteria is around 37°C (body temperature). They can multiply quickly between <b>20°C and 50°C</b>. To reduce the risk of the multiplication of food poisoning bacteria and the risk of prosecution, the temperature of food should be kept below <b>8°C</b> or above <b>63°C</b> (the risk zone). Some food poisoning bacteria will multiply rapidly in food rooms above 20°C, but most will not multiply in a refrigerator (1°C to 4°C). The few that can multiply below 8°C do so very slowly. No food poisoning bacteria can multiply in frozen food (-18°C), but many will survive and start multiplying when the food thaws.</p>  <p><b>FOOD AND MOISTURE:</b> Bacteria prefer foods which contain nutrients and moisture especially raw or cooked meat, poultry and dairy produce. Foods such as dried egg or milk powder do not provide the moisture necessary for the growth of bacteria. To help identify hazards effectively food is often categorised into the following groups:</p> <ul style="list-style-type: none"> <li>• High-risk foods</li> <li>• Low-risk foods</li> <li>• Raw foods to be cooked</li> <li>• Ready-to-eat raw foods</li> </ul>

30	<p>The following content has been updated to:</p> <p>Cross-contamination should be eliminated; clean and dirty processes, and raw and high-risk food preparation areas must be separated. Work areas and equipment are often colour-coded. A separate area for de-boxing should be provided.</p>
43	<p>HACCP principles - the following content has been updated:</p> <div style="text-align: center;">  </div> <p><b>HACCP from purchase to service</b></p> <p>HACCP is a <b>food safety management system</b> which identifies and controls hazards at <b>critical control points</b> so minimising the <b>risk of food poisoning</b> or food complaints and ensuring safer food.</p> <p>Food safety management systems should be documented and records maintained proportional to the size of the business. Records are important to demonstrate the system is being implemented and managed effectively. Records could include HACCP documentation, specifications, deliveries, staff training, temperature <b>monitoring</b>, pest control, sampling, customer complaints and <b>cleaning</b> schedules. The system should be reviewed annually, if there are any changes or if something goes wrong.</p> <div style="background-color: #f9e79f; padding: 10px; border-radius: 10px;">  <p><b>what the LAW says</b>  All food business operators must implement a food safety management system based on the following principles of HACCP (hazard analysis critical control point).</p> </div> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; font-size: 2em; margin-right: 10px;">7 HACCP Principles</div> <ol style="list-style-type: none"> <li> 1 Identify the <b>hazards</b> (what could go wrong) and the <b>control measures</b> to prevent things going wrong.</li> <li> 2 Identify the <b>critical control points</b> (CCPs) - those steps in the preparation or production of food which must be controlled as they are critical to <b>food safety</b>.</li> <li> 3 Establish validated <b>critical limits</b> at each CCP, for example <b>cooking food to a proven safe core temperature</b>.</li> <li> 4 <b>Monitor</b> (check) the control measures at each CCP to ensure the process is under control i.e. prevent problems occurring.</li> <li> 5 Establish <b>corrective actions</b> that need to be taken if critical limits are breached i.e. when something goes wrong.</li> <li> 6 <b>Validate the plan and then establish procedures for verification to confirm the HACCP plan is working as intended.</b></li> <li> 7 Establish documentation and records for the HACCP system.</li> </ol> <p> <b>Review the system if there are any changes.</b></p> </div> <div style="background-color: #2e3192; color: white; padding: 5px; display: flex; justify-content: space-between; align-items: center;"> <span>Food Safety HANDBOOK</span> <span style="border: 2px solid white; border-radius: 50%; padding: 5px 10px;">43</span> </div>
49 and 50	<p>The following content has been updated:</p> <p>High-risk and perishable foods have a short shelf life and must be stored under refrigeration.</p> <p>They should be clearly labelled with a 'use by' date, which must never be altered. Food should not be sold or consumed after this date. Daily checks of 'use by' dates are essential for high-risk foods, while weekly checks may suffice for lower-risk products.</p> <p>The shelf life of food depends on maintaining correct storage conditions, such as specific temperatures and humidity levels. These conditions should be clearly stated on the product label, for example, 'keep below 3°C'. Food that has passed its 'use by' date must be disposed of safely.</p>

**Appendix 1: Glossary**

The following definitions have been updated to align with other Highfield food safety products:

**Critical control point** - A step at which a control measure or control measures, essential to control a significant hazard, is/are applied in a HACCP system.

**Cross-contamination** - The transfer of hazards from contaminated surfaces, including raw food, equipment and hands to other surfaces and ready to eat food/raw food.

**Risk (danger) zone** - The temperature range within which there is a risk of pathogenic bacteria multiplying and a risk of fines if high-risk food is kept inside this range for longer than is legally allowed. This range varies in different countries. Usually, 5°C to 60°C but in the UK is 8°C to 63°C.

---End---