



**DRAFT v.4**

**PORK QUALITY MODULE**

This section is applicable to the production of Red Tractor assured pork, and the receipt and use of Red Tractor assured pork

**ASSURED PORK (PQ)**

| PORK QUALITY ATTRIBUTES (PORK AND TRIM)  |  |  |                            |
|--|--|--|----------------------------|
| <b>AIM: Assured pork meets the scheme's quality attributes, ensuring consistency and helping to deliver end-user satisfaction</b>  |  |  |                            |
| <b>PQ.a (REVISED)</b><br>Red Tractor Assured pork must only derive from eligible pigs  | <ul style="list-style-type: none"> <li>Assured pork derives from Red Tractor assured pigs (or assured to a Red Tractor recognised scheme i.e. QMS)</li> <li>Meat from Red Tractor Assured (or QMS assured) sows is not used for Red Tractor Assured pork, but may be used for sausages and other comminuted products</li> </ul>  |  |                            |
| <b>PQ.b</b><br>Red Tractor Assured pork derives from carcasses meeting the required quality attributes   | <ul style="list-style-type: none"> <li>The carcase is clean and free from extraneous matter</li> <li>The carcase is free from blemish, bruising, hair, cuts and loose skin</li> <li>Rind-on cuts derived from carcasses:               <ul style="list-style-type: none"> <li>free from hair, cuts and loose skin</li> <li>with a maximum rind side blemish score of 2 on the AHDBs 5 point scale</li> </ul> </li> <li>The P2 measurement does not exceed 16mm or the combined P1+P2 does not exceed 32mm; or scanned carcasses have a measured lean of 52% or more</li> <li>The carcase cold weight does not exceed 105kg, except in the case of gilt carcasses used for sausage and other comminuted products</li> </ul> |  |                            |
| <b>PQ.b.1</b><br>Red Tractor Assured offal derives from carcasses meeting the required quality attributes, with the exception of weight  | <ul style="list-style-type: none"> <li>The specification in PQ.2 is met, with the exception of carcase weight</li> </ul>   |  |                            |
| <b>PQ.b.2</b><br>Red Tractor Assured pork derives from pork meeting the required quality attributes  | <ul style="list-style-type: none"> <li>The fat is firm and white</li> <li>The muscle is firm and of good colour</li> <li>The muscle and fat show no sign of bruising and blood splash</li> <li>Pork is clean, free of stickiness and any off-odour or other indication of poor quality (including PSE and DFD)</li> <li>Primals and cuts are separated by clean cuts and are free from unnecessary cuts</li> <li>Primals and cuts are free from loose glands such as lymphatic nodes, loose skin and other extraneous matter</li> </ul>  |  |                            |
| <b>PQ.c</b><br>Quality specifications must be agreed with the site's customers, documented and followed  | <ul style="list-style-type: none"> <li>Specifications in place for pork primals, foodservice and retail packs of pork</li> <li>Specifications outline the parameters to be achieved including, as a minimum, the scheme criteria</li> <li>Specification formally agreed between the supplier and customer</li> </ul>   | <ul style="list-style-type: none"> <li>Specifications</li> </ul> |                            |
| <b>PQ.d (REVISED)</b><br>Red Tractor Assured pork must meet the required microbial specification   |  | Target   | Upper Action Limit         |
|  | Aerobic colony count (ACC)   | <1 x 10 <sup>4</sup> cfu/ g                                      | 1 x 10 <sup>6</sup> cfu/ g |
| <ul style="list-style-type: none"> <li>Where microbiological results are above the upper action limit, there is evidence that these are subject to trend analysis and where ongoing issues are found, the root cause is investigated, and corrective action taken</li> </ul> |  |  |                            |

| STANDARDS   | HOW YOU WILL BE MEASURED  |   |
|---|---|---|
| <b>MONITORING OF PORK AGAINST THE QUALITY ATTRIBUTES (PORK AND TRIM)</b>  |   |   |
| <b>AIM: Systems to verify the quality attributes are in place and procedures are working</b>  |   |   |
| <p><b>PQ.e</b><br/>The site must have systems in place to monitor carcasses and pork products against specifications and the scheme's quality requirements</p>                                    | <ul style="list-style-type: none"> <li>■ System includes a visual inspection: <ul style="list-style-type: none"> <li>– of a sample of bought-in product at intake (including inter-company transfers)</li> <li>– of all bought in product before cutting and further processing</li> <li>– of all products at specified points on the production line</li> <li>– of finished products</li> </ul> </li> <li>■ System includes microbiological testing to a risk assessed schedule: <ul style="list-style-type: none"> <li>– frequency is dependent on risks (e.g. frequency of deliveries, microbial results and previous performance)</li> </ul> </li> <li>■ System includes organoleptic sampling of finished products of pork against customers specifications, for tenderness, succulence, flavour and visual appearance</li> <li>■ The system is documented and trained staff deliver its requirements</li> </ul> | <ul style="list-style-type: none"> <li>■ Schedules and results</li> </ul> |
| <p><b>PQ.e.1</b><br/>Carcasses and pork products not meeting the quality attributes must not be used in the production of Red Tractor Assured pork products, unless specific exemptions apply</p> | <ul style="list-style-type: none"> <li>■ Exemptions include: <ul style="list-style-type: none"> <li>– overweight gilt carcasses being suitable for the production of Red Tractor Assured sausages and other comminuted products</li> <li>– the offal of overweight carcasses being suitable for being described as Red Tractor Assured offal</li> </ul> </li> <li>■ Other, non-conforming products are handled in accordance with documented procedures and where applicable a root cause analysis undertaken and corrective action implemented</li> </ul>  |   |
| <b>PROCESS CONTROLS (PORK AND TRIM)</b>   |   |   |
| <b>AIM: Systems are in place to produce pork to the required quality attributes</b>   |   |   |
| <p><b>PQ.f</b><br/>Carcasses must be scalded, de-haired (singed and/ or scraped as required), to produce a firm, clean and undamaged rind</p>   |   |   |
| <p><b>PQ.g</b><br/>Pork and trim products must be labelled with kill date</p>   | <ul style="list-style-type: none"> <li>■ Primals packed in modified atmosphere packaging or vacuum packed are labelled as such, with a durability date or code</li> <li>■ Pork mince may carry multiple kill dates</li> </ul>   |   |
| <p><b>PQ.g.1</b><br/>Chilled fresh pork must be processed within kill +7 days unless specific exemptions apply</p>  | <ul style="list-style-type: none"> <li>■ Vacuum packed, gas flushed or deep chilled products may be processed after 7 days, provided the temperature does not exceed 3°C and given satisfactory documentary support that quality is not compromised</li> <li>■ If the product temperature has been disturbed and exceeded 5°C, the pork is processed within 4 days</li> <li>■ Kill dates (as labelled on the product) is used to establish durability dates</li> </ul>  |   |
| <p><b>PQ.h</b><br/>Any meat to be frozen before processing must be in good condition, effectively packaged and placed into a freezer within 4 days of slaughter</p>                               | <ul style="list-style-type: none"> <li>■ Date of entry into the freezer applied</li> <li>■ Where frozen, the meat is in good condition and effectively packaged at the time of freezing</li> <li>■ Vacuum packed or gas flushed or deep chilled products may be processed after 4 days, provided the temperature does not exceed 3°C and there is satisfactory documentary support that quality is not compromised</li> </ul>   |   |
| <p><b>PQ.h.1</b><br/>Systems must be in place to ensure that frozen pork and trim is used within 12 months of freezing</p>  | <ul style="list-style-type: none"> <li>■ System includes applying a date of freezing to each unit and a durability date, and having an effective stock control system</li> </ul>  |   |

| STANDARDS   | HOW YOU WILL BE MEASURED   |  |
|---|--|--|
| <b>TEMPERATURE MANAGEMENT (PORK AND TRIM)</b>   |  |  |
| <b>AIM: Pork is chilled in a manner that does not adversely impact on quality and maintained at required temperatures</b>   |  |  |
| <b>PQ.i</b><br><b>Carcases must be transferred to temperature controlled environments without delay</b>   |  |  |
| <b>PQ.j</b><br><b>Carcases in chillers must be managed in such a way to encourage cooling and reduce condensation</b>   | <ul style="list-style-type: none"> <li>■ Carcase sides are spaced to allow airflow around the carcasses</li> <li>■ Carcase bunching is avoided</li> <li>■ Hot and completely chilled carcasses are not stored in the same chiller, unless hot carcasses have passed through an in-line blast chill or there is evidence that the process is not compromising the safety and quality of meat already chilled</li> </ul>   |  |
| <b>PQ.j.1</b><br><b>Carcases and products are chilled to required temperatures, in accordance with planned chilling regimes</b>   | <ul style="list-style-type: none"> <li>■ The chilling regime is designed to ensure that the deep muscle temperature (when measured within the leg), does not fall below 10°C during the first 3 hours from the commencement of the cooling cycle</li> <li>■ Within 24 hours of cooling to 10°C, or before the pork is cut or processed, the deep musculature is reduced to between -2°C and +5°C. All pork products (including finished product) are held between -2°C and +5°C</li> </ul>   |  |
| <b>PQ.k</b><br><b>Pork products (including finished product) and trim must be stored at between -2°C and +5°C for fresh product and at -12°C or below for frozen products</b> | <ul style="list-style-type: none"> <li>■ The operational capability of the temperature control system is such that the required temperatures are achieved under maximum load</li> <li>■ Systems are in place to minimise the ingress of warm air e.g. strip curtains</li> </ul>  |  |
| <b>PQ.l</b><br><b>The defrosting of frozen pork and trim must be managed to ensure the outer surface does not exceed +7°C during the defrosting period</b>                    | <ul style="list-style-type: none"> <li>■ Defrosting undertaken in a controlled manner</li> <li>■ Records of the defrosting dates, times and product temperatures are kept</li> </ul>   | <ul style="list-style-type: none"> <li>■ Defrosting records</li> </ul>           |
| <b>PQ.m (REVISED)</b><br><b>Temperatures must be regularly monitored in accordance with documented procedures</b>   | <ul style="list-style-type: none"> <li>■ Temperatures of both chill stores and products monitored in accordance with a risk assessed schedule</li> <li>■ Incoming product temperatures are checked before accepting the delivery (i.e. on the delivery vehicle).</li> <li>■ Chilled pork does not fall outside of the range of -2°C to +5°C and is brought into the preparation room progressively as needed.</li> <li>■ Checks are undertaken at different points within the storage unit, both between packs for packed product and product core temperatures on other products</li> <li>■ Carcase temperatures measured using a probe into the deep musculature of the hindquarter and/ or forequarter</li> <li>■ Records of temperature monitoring kept</li> </ul> | <ul style="list-style-type: none"> <li>■ Schedule, monitoring records</li> </ul> |
| <b>PQ.m.1</b><br><b>Where temperature monitoring identifies non-conforming products, the root cause is identified and the product dealt with appropriately</b>                | <ul style="list-style-type: none"> <li>■ Corrective actions are implemented where appropriate</li> <li>■ A record of the root cause and corrective actions is kept</li> </ul>  | <ul style="list-style-type: none"> <li>■ Corrective actions</li> </ul>           |

# ASSURED PORK SAUSAGES (PS)

This section is applicable to the production of assured pork sausages and sausage-type products (e.g. meatballs, sausage meat, stuffing, burgers)

## ASSURED PORK SAUSAGES (PS)

| STANDARDS  | HOW YOU WILL BE MEASURED   |  |
|--|--|--|
| <b>PORK SAUSAGE QUALITY ATTRIBUTES</b>   |  |  |
| <b>AIM: Red Tractor Assured pork sausages meet the scheme's quality attributes, ensuring consistency and helping to deliver end-user satisfaction</b>                                      |  |  |
| <p><b>PS.a (REVISED)</b><br/> <b>The meat and ingredients used in Red Tractor Assured pork sausages meet the scheme's requirements including maximum permitted limits</b></p>              | <ul style="list-style-type: none"> <li>■ All pork and pork ingredients (including fat and rinds) used are Red Tractor Assured (or QMS assured), are sourced from Red Tractor licenced sites and meet the pork quality attributes</li> <li>■ Pork is either fresh or frozen</li> <li>■ The meat content of a pork sausage is at least 52%, with the definition of meat being as defined in legislation. The meat content may include:               <ul style="list-style-type: none"> <li>– fat up to 30%</li> <li>– connective tissue up to 25% collagen/ protein ratio</li> <li>– neck end/ jowl meat up to 10% (unless trimmed of all glands) e.g. maximum of 5.2% in a 52% pork content sausage</li> <li>– rinds, or dehydrated rinds that have been rehydrated in line with manufacturer's instructions up to 10% e.g. maximum of 5.2% in a 52% pork content sausage</li> </ul> </li> <li>■ Other ingredients used in pork sausages are used in accordance with legal requirements. Ingredients may include:               <ul style="list-style-type: none"> <li>– a maximum of 1.38g salt or 550mg sodium per 100g of raw sausage meat; with the product range average not exceeding 1.13g salt or 450mg sodium per 100g sausages</li> <li>– added Phosphate (E450, E451, E452) up to 0.5% of the total recipe</li> <li>– natural and artificial colours up to legislative limits</li> <li>– the use of preservatives permitted by legislation</li> <li>– the use of preservative sulphur dioxide up to 450ppm of the final product at point of sale</li> </ul> </li> <li>■ Natural or artificial casings are used. Natural casings do not need to derive from an assured source</li> </ul> |  |
| <p><b>PS.a.1</b><br/> <b>Non-permitted ingredients are not used in the production of Red Tractor Assured pork sausages</b></p>   | <ul style="list-style-type: none"> <li>■ Non-permitted ingredients include:               <ul style="list-style-type: none"> <li>– head meat (with the exception of masseters)</li> <li>– liver skirts</li> <li>– blood products</li> <li>– offal</li> <li>– mechanically separated meat</li> <li>– monosodium glutamate</li> <li>– functional proteins and fat emulsions</li> <li>– non assured meat, trim, rinds or fat</li> <li>– meat, trim or fat from species other than pigs</li> </ul> </li> </ul>   |  |
| <p><b>PS.a.2 (REVISED)</b><br/> <b>Bacon raw material brought in from a different site must be sourced from a Red Tractor licensed supplier and be labelled as Red Tractor Assured</b></p> | <ul style="list-style-type: none"> <li>■ Where the site is assembling component packs e.g. pigs in blankets, only the clauses contained within the Red Tractor Pork Quality Module (Assured Pork Sausages) (or equivalent) appropriate to the process being undertaken shall apply</li> </ul> <p>RECORD: Bacon supplier's Red Tractor Licence certificate</p>  |  |
| <p><b>PS.a.3 (NEW)</b><br/> <b>Each batch of pork raw material must be labelled with required information</b></p>  | <ul style="list-style-type: none"> <li>■ As a minimum, labelled with:               <ul style="list-style-type: none"> <li>- Site identification code (health mark)</li> <li>- Product description</li> <li>- Weight</li> <li>- Traceability batch code</li> <li>- Confirmation of Red Tractor Assured status (by use of the descriptor RT/RTA/Red Tractor/RT Assured or Red Tractor Assured or by labelling with the Red Tractor logo)</li> <li>- Country of birth, rearing and slaughter or statement of pigs' origin</li> </ul> </li> </ul>   |  |

|   |  |                      |
|---|--|----------------------|
|   | <ul style="list-style-type: none"> <li>- Date of freezing on all frozen raw material</li> <li>- Process-by or 'best before' on frozen material or a use by date</li> <li>- Kill date (where applicable)</li> </ul>   |                      |
| <b>PS.b</b><br><b>Pork sausages must be produced to a documented recipe</b>                                 | <ul style="list-style-type: none"> <li>■ Recipe details all ingredients used, including casings</li> <li>■ Ingredients used are permitted by the scheme standards</li> </ul>   | ■ Recipes            |
| <b>PS.b.1</b><br><b>For each sausage type produced, a recipe and methodology is documented and followed</b> | <ul style="list-style-type: none"> <li>■ Sausage meat is ground by mincing or bowl chopping and mixed together with other ingredients to a documented recipe with a documented methodology</li> <li>■ Methods used ensure the quality requirements are achieved</li> <li>■ The methodology is appropriate to the recipe and specifies equipment to be used, the frequency of mincing, and quantities of ingredients, etc. to be added</li> <li>■ Recipes and methodologies may be customer led or be specific to the company</li> <li>■ Methodologies may apply to multiple recipes</li> </ul> | ■ Recipe methodology |

| STANDARDS  | HOW YOU WILL BE MEASURED  |                              |                             |
|--|---|------------------------------|-----------------------------|
| <b>PS.c</b><br><b>Pork sausages must meet the required visual, colour, texture and flavour characteristics</b>   | <ul style="list-style-type: none"> <li>■ Raw sausages will: <ul style="list-style-type: none"> <li>– have visible particles of raw meat</li> <li>– be well formed, cylinder in shape</li> <li>– not have excessive drip</li> <li>– be free from off-odours</li> </ul> </li> <li>■ Cooked sausages will: <ul style="list-style-type: none"> <li>– have an even, light brown colour</li> <li>– retain their original shape, with no splitting or significant shrinkage</li> <li>– have a firm texture, with absence of hard particles (bone, gristle) and excessive fat</li> <li>– have a well-balanced flavour and no metallic taste, off-flavours and taints</li> </ul> </li> </ul> |                              |                             |
| <b>PS.c.1</b><br><b>For each sausage type produced, a quality specification is documented and followed</b>   | <ul style="list-style-type: none"> <li>■ Specification details quality parameters to be checked on the production line, including appearance, packing requirements and temperature</li> <li>■ Specifications agreed formally with customers</li> <li>■ Specifications are easily available to staff</li> </ul>  | ■ Specifications             |                             |
| <b>PS.d</b><br><b>Anticipated cooking losses must be established and documented for each recipe</b>  | <ul style="list-style-type: none"> <li>■ The product is cooked as per the recipe instructions, to achieve an internal core temperature of 72°C</li> <li>■ The cooking loss is established using the following calculation: <ul style="list-style-type: none"> <li>– Finished cooked (+72°C) weight ÷ Raw weight x 100 = total cooked weight % (difference up to 100 = % cook loss)</li> </ul> </li> </ul>   | ■ Anticipated cooking losses |                             |
| <b>PS.e</b><br><b>Finished, raw assured pork sausages meet legal and scheme requirements for microbiological limits, enabling the labelled shelf life to be achieved</b> | <ul style="list-style-type: none"> <li>■ The following specification is met. The specification may not be appropriate to sausages containing raw vegetables, herbs, etc. Where that is the case the site has set its own targets and limits</li> </ul>  |                              |                             |
|  |   | Target                       | Limit                       |
|  | ACC   | <5 x 10 <sup>4</sup> cfu/ g  | <5 x 10 <sup>6</sup> cfu/ g |
|  | Yeast/ moulds   | <5 x 10 <sup>3</sup> cfu/ g  | <5 x 10 <sup>4</sup> cfu/ g |
|  | E. coli   | <50 cfu/ g                   | 5 x 10 <sup>2</sup> cfu/ g  |
| Salmonella   | Absent in 5, 10g samples  | Absent in 5, 10g samples     |                             |

#### MONITORING OF PORK SAUSAGES AGAINST THE QUALITY ATTRIBUTES

**AIM: Systems to verify the quality attributes are in place and procedures are working**

|   |   |   |
|---|---|---|
| <p><b>PS.f</b><br/> <b>Monitoring must be undertaken to ensure assured pork sausages are produced in accordance with the recipe, specifications and scheme's quality requirements</b></p> | <ul style="list-style-type: none"> <li>■ All recipes are verified prior to use and at a risk assessed frequency going forward</li> <li>■ Samples of finished products are tested: <ul style="list-style-type: none"> <li>– at a risk assessed frequency for microbiological criteria and chemical analysis for meat, fat and salt and sulphur dioxide content</li> <li>– against organoleptic criteria at least monthly</li> </ul> </li> <li>■ Systems of verification include: <ul style="list-style-type: none"> <li>– NPD trials</li> <li>– traceability of raw materials</li> <li>– organoleptic testing, including taste panels</li> <li>– microbiological and chemical analysis testing</li> <li>– review of completed process records</li> </ul> </li> <li>■ Records of monitoring are kept</li> </ul> | <ul style="list-style-type: none"> <li>■ Recipe verification, monitoring results</li> </ul> |
| <p><b>PS.f.1</b><br/> <b>Pork sausages not meeting the quality attributes must not be marketed as Red Tractor Assured and must be handled appropriately</b></p>                           | <ul style="list-style-type: none"> <li>■ Non-conforming products are handled in accordance with documented procedures</li> <li>■ Non-conformities are trended and where they are repeated a root cause analysis is undertaken and corrective action implemented</li> <li>■ Records are kept</li> </ul>  |   |

| STANDARDS  | HOW YOU WILL BE MEASURED  |  |
|--|---|--|
| <b>PROCESS CONTROLS (PORK SAUSAGES)</b>  |   |  |
| <b>AIM: Systems are in place to produce pork sausages in accordance with the quality attributes</b>  |   |  |
| <b>PS.g</b><br><b>Pork and trim for sausages must be used within kill +4 days unless specific exemptions apply</b>   | <ul style="list-style-type: none"> <li>■ Vacuum packed, gas flushed or deep chilled products may be processed after the 4 days, provided the temperature does not exceed 3°C and shelf life verification demonstrates quality is not compromised</li> <li>■ Sensory evaluation is used to determine shelf life</li> </ul> |  |
| <b>TEMPERATURE MANAGEMENT (PORK SAUSAGES)</b>  |   |  |
| <b>AIM: Pork sausages are produced and chilled to temperatures that do not adversely impact on quality</b>   |   |  |
| <b>PS.h.0 (NEW)</b><br><b>The temperature of frozen bacon raw material must not exceed -12°C at intake</b>   | <ul style="list-style-type: none"> <li>■ Applies unless bacon is received in a tempered form ready for slicing (typically -8°C)</li> <li>■ Bacon raw material is -18°C or less during transport</li> </ul>  |  |
| <b>PS.h</b><br><b>During the preparation of sausages, the mix temperature must be managed to ensure a temperature of 7°C is not exceeded</b>                   | <ul style="list-style-type: none"> <li>■ Temperatures may rise due to mincing, mixing and chopping</li> <li>■ Controls are in place to limit the rise in temperature</li> </ul>   |  |
| <b>PS.h.1</b><br><b>After filling, finished packed sausages must be transferred to temperature controlled environments without delay</b>                       |   |  |
| <b>PS.h.2</b><br><b>Finished packed sausages must be chilled to less than 4°C within 4 hours of final pack and stored between -2°C and +4°C whilst on site</b> |   |  |
| <b>PS.i</b><br><b>Temperatures must be regularly monitored in accordance with documented schedules</b>   | <ul style="list-style-type: none"> <li>■ Temperatures of both chill stores and products monitored in accordance with a risk assessed schedule</li> <li>■ Checks are made during sausage preparation, filling and during storage</li> <li>■ Records of temperature monitoring kept</li> </ul>                              | <ul style="list-style-type: none"> <li>■ Monitoring schedule, results</li> </ul> |
| <b>PS.i.1</b><br><b>Where temperature monitoring identifies non-conforming products, the root cause is identified and the product dealt with appropriately</b> | <ul style="list-style-type: none"> <li>■ Corrective actions are implemented where appropriate</li> <li>■ A record of the root cause and corrective actions is kept</li> </ul>   | <ul style="list-style-type: none"> <li>■ Corrective action</li> </ul>            |