APPLICATION FOR REGISTRATION OF A TSG COUNCIL REGULATION (EC) No 509/2006

'TRADITIONALLY FARMED GLOUCESTERSHIRE OLD SPOTS PORK'

EC No UK/007-0024/TSG

1. Name and address of the applicant group

Name: The Gloucestershire Old Spots Pig Breeders' Club

Address: Freepost (GL442)

Cirencester Gloucestershire

GL7 5BR

Tel/Fax: 01285 860229

E-mail: mail@oldspots.org.uk

2. Member State or Third Country

United Kingdom

3. Product Specification

3.1. Name to be registered

'Traditionally Farmed Gloucestershire Old Spots Pork'

3.2

The name expresses the specific character of the agricultural product or foodstuff

The specific character of Traditionally Farmed Gloucestershire Old Spots Pork results from the traditional unimproved breed and traditional farming method production method which in turn gives the pork its distinctive physico-chemical and organoleptic properties.

3.3. Whether reservation of the name is sought under Article 13(2) of Regulation (EC) No 509/2006

Registration with reservation of the name.

While the title uses the word 'pork' this registration applies to all products derived from the pig including bacon, sausages, gammons, hams etc.

3.4. Type of product

Class 1.1 — Fresh Meat

3.5. Description of the agricultural product or foodstuff to which the name under point 3.1 applies

Traditionally Farmed Gloucestershire Old Spots Pork is characterised by the following qualities:

- greater fat thickness,
- smaller muscle dimensions,
- less pale (darker) muscle colour,
- greater retention of moisture in the muscle structure during freezing and cooking,
- higher tenderness and juiciness
- and a different flavour profile.

when compared to conventionally produced pork.

This is supported by research which has been done to compare the main physical, chemical, microbiological and organoleptic characteristics of Traditionally Farmed Gloucestershire Old Spots Pork with pork derived from 'modern' pig breeds and processed in industrial scale abattoirs. Thus allowing an objective comparison to be made between the traditionally produced pork from a traditional "old fashioned" breed and conventionally produced "modern" pork as they would normally be obtained by consumers.

Carcass and meat quality aspects of GOS and modern breeds were assessed in terms of muscle colour, pH, muscle width and depth, fat thickness, cooking time, freezing and cooking losses and sensory (eating) quality. The nutritional quality of muscle was also assessed in terms of its fatty acid composition. Meat from GOS had smaller longissimus muscle dimensions and greater fat thickness than that from the conventionally produced pigs. They had similar muscle pH but darker muscle colour and lower freezing and cooking losses. The time to reach 72°C internal temperature during griddling was greater in GOS compared with the "modern" pork. Chops from GOS had higher taste panel scores for texture (tenderness) and juiciness and higher pork flavour compared with the "modern" pork. Abnormal flavour tended to be higher in GOS, these results suggesting a different 'flavour profile' in GOS.

The relevant values for Traditionally Farmed Gloucestershire Old Spots Pork are as follows:

Physical Characteristics

Colour

Mean values when air-packed as follows:

Lightness 53.9 Redness 7.33 Yellowness 6.67 Chroma 9.94 Hue 42.31

Tissue Thickness

Mean Values as follows:

Muscle width 86.6mm Muscle Depth 46.3mm

Fat Thickness

(excluding skin) 11.5mm

Chemical Characteristics

Muscle Fat Content and Fatty Acid Composition

Ratio of polyunsaturated fats to saturated fats (P:S ratio)

Median value of 0.60

Cuts of pork will normally be; Loins and small cuts thereof e.g. Chops, Legs, Shoulders, Spare Ribs and Belly, but does not preclude a number of local variations such as Bath Chaps etc. A Bath Chap is the cheek of a pig, boned, brined and cooked. Other products derived from Traditionally Farmed Gloucestershire Old Spots Pork include bacon, sausages, gammons, hams etc.

3.6. Description of the production method of the agricultural product or foodstuff to which the name under point 3.1 applies

Traditionally Farmed Gloucestershire Old Spots Pork must come from pedigree Gloucestershire Old Spots pigs. These pigs must be registered as purebred by the British Pig Association or any other pig breeders' organisation keeping a Gloucestershire Old Spots herd book and licensed by the Government of a member state in accordance with the relevant EC legislation.

In order to meet the specification "Traditionally Farmed" producers and processors must adhere to the following requirements

Feed

The definition of Traditionally Farmed is that the pigs have been reared from birth to slaughter in an environment that enables them to grow at a natural rate. As a result, Daily Live Weight Gain (DLWG) is reduced and the number of days to slaughter is increased. To achieve this, a lower protein feed (15-18% protein with essential Fatty Acids including Lysine) supplemented as necessary with fruit and vegetables, sugarbeet pulp etc. is fed from weaning to finishing in such a managed way so as to avoid excessive backfat levels. GOS pigs managed in such a way should produce backfat levels of 12-16mm measured at P2. Commercially raised pigs would normally be fed on a mix of between 18 and 22% protein and be expected to have lower backfat levels of 5-8mm.

Following this regime, the average age to pork weight (55-61kg dead weight) is 180 days, (minimum 160) as opposed to commercial 140-165 days. The longer period to finished weight is part of the reason for the increased flavour and succulence found in the pork.

Environment

The environment in which pigs are kept also influences the eating quality. Pigs may be reared outdoors or indoors provided the following requirements are complied with.

Outdoor Rearing

Traditionally Farmed Gloucestershire Old Spots Pork should be kept at a stocking rate of 15-20 sows per hectare. All litters to be kept separate with their dam until they have been marked for identification purposes in accordance with the rules laid down by the British Pig Association or their equivalent. Such rules state that both parents must be registered pedigree Gloucestershire Old Spots and that by eight weeks of age or before the pigs are mixed with others, they must be 'Birth Notified' (first stage of the registration process) and permanently marked in the ears with their registered numbers.

Store pigs between weaning and finishing to be kept at a stocking rate of a maximum 100 pigs to the hectare.

All pigs kept outdoors must have access to adequate shelter/shade as well as wallows, dips or showers. In winter, pigs must have access to dry ground within their enclosure.

Indoor Rearing

Buildings must be well ventilated and can have sides open to the elements providing that pigs kept in them can enjoy shelter from adverse weather conditions. Ample daylight must be available so that all pigs can be observed without difficulty. Slatted floors are not permitted for animal comfort and welfare. Ample clean bedding must always be available.

The minimum floor space per pig is as follows:

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For each pig 20-30kg I/w - 0.35m^2 (
For each pig 30-50kg I/w - 0.50m^2 (
For each pig 50-85kg I/w - 0.65m^2
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Clean and dry bedding and access to clean water at all times.

Husbandry

Application of medication should be kept to a minimum and avoided unless absolutely necessary. The only exception is the use of medication for parasitic pest control.

Routine tail docking and teeth clipping are not permitted.

Weaning – in normal circumstances, a minimum of 42 days, recommended 56 days.

Transport

Traditionally Farmed Gloucestershire Old Spots Pork to be transported to slaughter direct from the farm and not transported with pigs from other holdings.

Finished pigs being transported to the abattoir must be transported at 200kg/m².

From Slaughter to Retail

Slaughter takes place in small-scale abattoirs to minimise stress.

Traditionally Farmed Gloucestershire Old Spots pig carcases must be "hung" on the bone for a period of three to four days from slaughter.

Breaking down the carcase before this period tends to cause distortion of the muscles. This may result in poor butchery technique and possibly a false sensation of toughness in the final product.

Traditionally Farmed Gloucestershire Old Spots Pork is from pigs produced as described and as such is suitable for traditional handling methods and butchery. There may be considerable variation in carcase conformation and fat levels mainly due to the individual breeding lines and the way in which different producers finish their stock.

This variation means that the butcher needs to make judgements when determining cutting lines in order to get the best presentation and value from the meat. As an example the size of the belly pork in relation to the loin can vary considerably, as can the proportions of meat from the shoulder.

The final cuts from Traditionally Farmed Gloucestershire Old Spots are the same as commercial pigs, (Loins and small cuts thereof e.g. Chops, Legs, Shoulders, Spare Ribs and Belly) but the judgement by the butcher will make a lot of difference in terms of the presentation quality. As such Traditionally Farmed Gloucestershire Old Spots are not to be processed on industrial-type production lines.

The sale of the pork is best achieved within a period from four days to nine days post slaughter.

3.7. Specific character of the agricultural product or foodstuff

The specific character of Traditionally Farmed Gloucestershire Old Spots Pork results from:

- the traditional unimproved breed and traditional farming method production method which in turn gives the pork its distinctive physicochemical and organoleptic properties.

Traditional Production method

The non-intensive rearing regime practiced reduces the stress levels of the pigs. The feed regime and rearing environment allows the animals to grow more slowly. Slaughter takes place in small-scale abattoirs and the carcases are allowed to mature on the bone for 3-4 days. The final stage of preparing the meat for sale to the customer depends on the butchery skills and good judgement of the processor.

Physico-chemical and organoleptic properties

<u>Appearance of the meat</u> – darker than conventional produced pork with less muscle PH variation. This is due to the absence of pre-slaughter stress in the pigs.

<u>Muscle and fat measurements, cooking time, freezing and cooking losses</u> – findings of the recent research showed that Traditionally Farmed Gloucestershire

Old Spots Pork had smaller muscle width and depth measurements and greater backfat thickness than from conventional pork. This is consistent with earlier studies showing that such characteristics are that a consequence of using an unimproved pig breed in which there has less selection for carcass lean content than in modern breeds.

<u>Sensory analysis</u> – In the research Traditionally Farmed Gloucestershire Old Spots Pork scored higher for texture (tenderness) and juiciness than conventional produced pork. This is due to the greater retention of moisture within the Gloucestershire Old Spots muscle. The tenderness of the meat is also affected by the ageing/conditioning time. The tasting panel work which formed part of the research also suggested a different flavour profile for Traditionally Farmed Gloucestershire Old Spots Pork pork.

3.8. Traditional character of the agricultural product or foodstuff

The breed was developed in Gloucestershire in the Berkeley Vale. It was found around the valley of the River Severn, where for many years it was kept traditionally as cottager's pig.

The breed is believed to have evolved from the unimproved Berkshire and the original Gloucester pig. Writing in the 1780's, William Marshall in "The Rural Economy of Gloucestershire" describes pigs he found in the Vale of Gloucester as "the tall, long, white breed, which was formerly, perhaps, the prevailing breed of this island, is here still considered as the 'true Gloucestershire breed'. They grow to a great size. At present, the Berkshire and a cross between these two breeds, are the prevailing species." There is evidence that some additional breeding was done with the Old English Bacon Pig (now the British Saddleback). H D Richardson writing in "The Pig, Its Origins and Varieties" describes the Gloucester pig as being "hardy in constitution, and very prolific, and are profitable pigs for pork – more so than for bacon. They make good store pigs, and their pork is also said to be of prime quality".

Gloucestershire was famous for cheese making and apple orchards. The Gloucestershire Old Spot pig thrived on the by-products of these and converted this into valuable protein. Local folklore says that the black spots are the bruises from the windfall apples hitting the pigs. In celebration of the success of this breed, and its endearing qualities, there are public houses, inns and even a beer named after it.

3.9. Minimum requirements and procedures to check the specific character

Certification of Traditionally Farmed Gloucestershire Old Spots Pork would involve the following:

Inspections to sample the entire production chain from breeder/ finisher farms
 checks to include butchers accounts of carcass meat received from

breeders to confirm/verify source of meat and ensure that correct procedures are being adhered to. All birth notified pedigree Gloucestershire Old Spots pigs must be ear-marked in accordance with the rules set out by the British Pig Association (BPA) or equivalent rules. The first check must therefore be that the carcase received from the abattoir has the same ear number(s) as the pig(s) supplied by the producer and that these match the relevant on-line records. Butchers must then keep separate and identify such meat in the storage chillers and display counters. Should the head be removed for any reason at the abattoir, the carcase should be traceable back to the breeder via the slap mark on the pig's shoulder.

- Inspection of relevant Breed Society Records
- On-farm checks to ensure adherence to the required method of production: feed, stocking rate, husbandry and transport.
- Checks to verify conformity of established quality standards regarding weight, carcass, characteristics etc. These checks to cover the main physical, chemical and microbiological characteristics of the meat as set in the product description.
- Checks to ensure traceability from abattoir through to retail outlets.

4. Authorities or bodies verifying compliance with the product specification

4.1. Name and address

Name: Product Authentication Inspectorate Limited

Address: Rowland House,

65 High Street, Worthing, W. Sussex, BN11 1DN

Tel: +44 (0) 1903 237799 Fax: +44 (0) 1903 204445

E-mail: enquiries@thepaigroup.com

This private inspection body conforms to the principles of the EN 45011 standard.

4.2. Specific tasks of the authority or body

The inspection authority above is responsible for the verification of the entirety of the specification.