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No. 92

MINISTRY OF AGRICULTURE, FOOD AND FORESTRY POLICIES

PROVISION of 21 March 2007.

Production specification for the protected designation of origin “Prosciutto di San Daniele” [*San Daniele ham*]

SUMMARY

MINISTRY OF AGRICULTURE, FOOD AND FORESTRY POLICIES

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MINISTERIAL DECREES, RESOLUTIONS AND ORDINANCES

MINISTRY OF AGRICULTURE, FOOD AND FORESTRY POLICIES

PROVISION of 21 March 2007.

Production specification for the protected designation of origin "Prosciutto di San Daniele"

THE GENERAL DIRECTOR
FOR THE QUALITY OF AGRICULTURAL AND FOOD PRODUCTS

Considering that with (EC) Regulation no. 1107/1996 of the Commission of 12 June 1996, the designation "Prosciutto di San Daniele" with reference to the meat preparation category was registered as Protected Designation of Origin in the register of protected designations of origin (P.D.O.) and protected geographical indications (P.G.I.) specified by art. 6, paragraph 3 of (EC) Regulation no. 2081/92 (currently Reg. 510/06);

Considering that all references to rules and procedures in force before EEC Regulation no. 2081/92 entered into force have been removed from the production specification which were incoherent with the new Community regulation, since they attributed the activity of control of the designation to the producers themselves, organised in the consortium;

Considering that the departments of the European Union have agreed that the amendment request should be considered exclusively as a legal alignment of the production specification with the Community and national regulations in force;

Considering that there is a need to publish the production specification and the three regulations cited in the production specification in the Official Gazette of the Italian Republic and that these constitute an integral part of the production specification, in order that the provisions contained in the aforesaid documents are accessible for information erga omnes in the Italian territory;

shall ensure that

the attached production specification and the regulations for the Protected Designation of Origin "Prosciutto di San Daniele" are published.

Rome, 21 March 2007

The Director General: LA TORRE

PROSCIUTTO DI SAN DANIELE
(Protected Designation of Origin)

GENERAL SPECIFICATION

and dossier referred to in Article 4
of the EEC Council Regulation
no. 2081/92 dated 14 July 1992

PROSCIUTTO DI SAN DANIELE
(Protected designation of origin)

GENERAL SPECIFICATION

and dossier referred to in Article 4 of the EEC Council Regulation no. 2081/92 dated 14 July 1992

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- P.L.Rebellato, E.Santese “San Daniele, dal persutto al prosciutto” – Biblioteca Cominiana 1993

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Full text of the following provisions:

- Ministerial Decree no. 2555 dated 4 August 1984
- Law no. 30 dated 14 February 1990 and Ministerial Decree no. 298 dated 16 February 1993
- Art. 14 of Law no. 526 dated 21 December 1999
- Full text of Directive DAR 03/04 of 9 November 2004
- Legislative Decree no. 102 dated 27 May 2005

INTRODUCTORY FOREWORD AND METHODOLOGY

The purpose of this work is to condense the legislative and regulatory framework on which the designation of origin "Prosciutto di San Daniele" is based, in order to allow access by all those who require detailed and specific knowledge of this subject.

The methodology deemed most useful for the above-mentioned purpose consists in the subdivision by subject of certain basic topics or general principles, accompanied by the transposition, for each individual topic, of all laws and regulations which apply to them, even if provided for by different and separate legal instruments, regulations or implementing directives.

Therefore, the reader will be able to very simply find, following each topic raised, a complete and exhaustive set of regulations including all matters regulated over time on this topic.

The text provided in the following as a rule takes account of the legislation in force, both at the time of the application for registration of the PDO "prosciutto di San Daniele" (1994) and at the present time; this text will be subject to the necessary alterations whenever the whole legislation considered undergoes significant amendments.

Hereinafter, "Certified Body" refers to the control body certified for the purposes indicated in Article 10 of EEC Reg. no. 2081/92 pursuant to Article 14 of Law no. 526 dated 21/12/1999.

SECTION A

NAME OF THE PRODUCT WHICH COMPRISES THE DESIGNATION OF ORIGIN

The name of the product is:

"PROSCIUTTO DI SAN DANIELE"

or

"PROSCIUTTO DI SAN DANIELE DEL FRIULI"

Since 1970 the designation of origin "Prosciutto di San Daniele" has been legally protected at national level by the law of 4/7/70 no. 507, replaced by Law no. 30 dated 14/2/1990 and was finally recognised as a PDO pursuant to EEC Reg. no. 2081/92 with EC Regulation no. 1107 dated 12/06/96.

REFERENCE DOCUMENTS FOR SECTION A

- Law no. 507 dated 4/07/70
- Law no. 30 dated 14/02/90
- Presidential Decree no. 307 dated 23/02/82
- Ministerial Decree no. 298 dated 16/02/93

SECTION B

DESCRIPTION OF THE PRODUCT THROUGH INDICATION OF THE RAW MATERIALS AND THE MAIN ORGANOLEPTIC AND CHEMICAL AND PHYSICAL CHARACTERISTICS

The designation of origin "Prosciutto di San Daniele" or "Prosciutto di San Daniele del Friuli" is exclusively reserved for ham provided with the certification brand prescribed by Law no. 30 dated 14 February 1990, allowing its identification and guaranteeing its origin and the compliance with the production regulations contained in this specification (hereinafter simply indicated as "certification brand").

San Daniele ham is obtained exclusively from pigs born, reared and slaughtered in the territory of the regions of Friuli Venezia Giulia, Veneto, Lombardy, Piedmont, Emilia-Romagna, Umbria, Tuscany, Marche, Abruzzo and Lazio, according to the production regulations contained in this specification. The use of boars and sows is excluded.

The pigs must be slaughtered in very good health conditions and perfectly drained of blood, and must be at least nine months old.

San Daniele ham is characterised, until application of the certification brand, by its guitar shape, including the distal part (trotter).

This shape derives from the preparation system which, for both the right and left rear leg of the slaughtered pigs, requires sectioning to be carried out as follows: from front to rear in the upper part, for one third of the fascia lata; in the lower third of the gluteus medius, in the upper third of the gluteus superficialis, at around half of the vastus long and in the upper part of the semimembranous, with a curved cut. In the medial part the coxofemoral joint is disjointed and the muscles are cut horizontally along the line described with the external cut.

The legs of the pigs used for the preparation of San Daniele ham must be no less than 11 kilograms in weight.

The depth of the fat covering the external part of the fresh trimmed leg, measured vertically from the top of the femur ("sottonoce"), with the leg and relevant external fascia positioned horizontally, must be no less than 15 millimetres, including the rind, depending on size.

The correct consistency of the fat is estimated by determining the iodine level and/or the linoleic acid content taken both in the internal and external fat layers of subcutaneous panniculus adiposus in the leg. The iodine content in each individual sample must not exceed 70 and the lineoleic acid content must not exceed 15%.

Legs of pigs affected by full-blown myopathies (PSE, DFD, evidence of the consequences of phlogistic or traumatic processes etc.), that have been objectively certified by a vet at the abattoir, shall be excluded.

After slaughter, with the exception of refrigeration, the pig legs shall not undergo any preservation treatment, including freezing. Refrigeration means that the pig legs must be kept at an internal temperature between -1°C and +4°C during storage and transportation.

Legs from pigs slaughtered less than 24 hours and more than 120 hours before shall not be used.

Once maturation is complete, San Daniele ham presents the following characteristics:

a) Guitar shape, including the distal part (trotter), depending on the prescribed methods of preparation of the fresh pig leg.

b) The meat has the correct degree of tenderness, verifiable when tested with a needle and cut.

c) The fat part is perfectly white and presents the correct proportion in relation to the lean part.

d) The lean part is pink to red in colour, with some marbling.

e) The flavour is delicate and sweet, with a more marked aftertaste.

f) The aroma is fragrant and characteristic, depending on the prescribed maturation period.

San Daniele ham is also characterised by observance of the following parameters, verified by chemical analysis and relating to the requirements of the centesimal composition of a fraction of the biceps femoral muscle, taken before application of the certification brand.

g) The percentage humidity shall be no less than 57% and no more than 63%.

h) The coefficient of the ratio between the percentage composition of sodium chloride and the percentage humidity (expressed in numerical values multiplied by 100), shall be no less than 7.8 and no more than 11.2.

i) The coefficient of the ratio between percentage humidity and percentage composition in total proteins shall be no less than 1.9 and no more than 2.5.

l) The proteoloysis index (percentage composition of nitrogenous fractions soluble in trichloroacetic acid – TCA – in relation to total nitrogen content) shall be no more than 31.

The weight of whole San Daniele ham is normally between eight and ten kilograms and, at any rate, never less than 7.5 kilograms.

San Daniele ham is sold whole, deboned and, as such, also packaged in pieces of variable weight and shape, all of which bear the certification brand.

San Daniele ham can also be sold sliced and appropriately packaged. In this case, the certification brand shall be affixed to the package in an indelible and permanent way, under the supervision of the Certified Body according to the special regulations referred to in the Implementing Directive "Provisions relating to sliced and packaged San Daniele ham" and subsequent application measures. The operations of packaging the sliced product shall be carried out solely and exclusively within a typical processing area as delimited and indicated in the subsequent Section C.

REFERENCE DOCUMENTS FOR SECTION B

- Full text of Directives no. 14(10)92 dated 16 May 1992 and no. 17/93 dated 19 February 1993 concerning provisions relating to sliced and packaged San Daniele ham
- Law no. 30 dated 14/02/90 and Ministerial Decree no. 298 dated 16/02/93
- Article 14 of Law no. 526 dated 21/12/1999

SECTION C

DEFINITION OF GEOGRAPHICAL AREA AND COMPLIANCE WITH THE CONDITIONS REFERRED TO IN ARTICLE 2, PARAGRAPH 4

The typical production area of San Daniele ham, as identified by Law of the Italian Republic no. 30 dated 14 February 1990, is geographically limited within the census district and administrative territory of the municipality of San Daniele del Friuli, in Udine Province, Friuli-VG Region (Italy), on Map 1.

The production plants (ham curing plants) and slicing and packaging plants shall be located in the area specified in Map 1, where all the processing phases shall take place in compliance with this Specification.

The pigs and raw material obtained in the forms indicated in Section B come from a geographical area that is larger than the production area, which includes the administrative territory of the regions of Friuli Venezia Giulia, Veneto, Lombardy, Piedmont, Emilia-Romagna, Umbria, Tuscany, Marche, Abruzzo and Lazio (cf. Section C), as indicated in Map 2.

The above area of origin of the pigs and raw material is strictly defined by Law of the Italian Republic no. 30 dated 14 February 1990, as amended by Article 60 of Law no. 142 dated 19 February 1992, and Ministerial Decree no. 298 dated 16 February 1993.

All the pig breeding farms that supply the legs for the production of San Daniele ham and all the abattoirs authorised to carry out their preparation shall be located within the above area of origin.

To meet the requirements set forth in subsequent Section F regarding the production of the raw materials as defined in Article 2, Paragraph 5, of EEC Regulation no. 2081/92, the following special conditions and requirements shall be complied with.

The breeds, rearing and feeding of the pigs must be suitable for guaranteeing the traditional qualities of the resulting product in compliance with precise production requirements.

Animals, either pure-bred or derived, from the traditional Large White and Landrace breeds, as improved by the Italian Herd Book, are accepted. Animals derived from the Duroc breed, as improved by the Italian Herd Book, are also accepted.

Animals belonging to other breeds, either cross-breeds or hybrids, are also accepted, provided they derive from breeding or cross-breeding programmes carried out with aims consistent with those pursued in the Italian Herd Book for the production of heavy pigs.

In accordance with tradition, animals that carry antithetical traits, with particular reference to stress sensitivity (PSS), nowadays also objectively identifiable “post mortem” and on matured products, are not allowed.

All animals whose legs do not conform to these production specifications are in any case excluded, also with reference to the requirements and characterisation factors referred to in Section B.

Pure-bred animals belong to the Belgian Landrace, Hampshire, Pietrain, Duroc and Spot Poland breeds are excluded.

The genetic types used shall ensure the achievement of heavy weights with high degrees of efficiency and, in any case, an average weight per lot (live weight) of 160 kilograms (plus or minus 10%).

Table A and Table B below contain the different types of feed allowed and the relevant quantities and methods to be used.

The feed shall preferably be prepared in liquid form (swill or mash) and, according to tradition, with the addition of whey.

Maximum tolerances of 10% are allowed with regard to the quantities indicated in this specification.

In order to obtain a high quality subcutaneous fat layer, the maximum linoleic acid content allowed is 2% of the dry matter in the diet.

Whey and buttermilk ("buttermilk" refers to the by-product of butter processing, while "whey" is the by-product of curdling) collectively shall not exceed 15 litres/head/day.

If combined with slops, the total nitrogen content shall be less than 2%.

Dehydrated potato and cassava, collectively, shall not exceed 15% of the dry matter in the ration.

The breeding phases are defined as follows:

- Suckling: from 0 to 30 days with the sow
- Weaning: from 30 to 80 days
- Growing: from 30 to 80 kilograms of weight
- Fattening: from 80 to 160 kilograms of weight and above

The breeding techniques are aimed at obtaining heavy pigs, which shall be achieved through reasonable daily weight increases, as well as at producing carcasses that fall within the central classes of EEC Classification.

Breeding facilities and equipment shall ensure animal welfare.

Shelters shall be well insulated and ventilated to guarantee the right temperature, optimum air circulation and removal of noxious gases.

Floors shall be characterised by a low incidence of cracks and shall be constructed with water-resistant, thermal and anti-skid materials.

Depending on the type of diet, all facilities and equipment shall be adequately resistant to corrosion.

To guarantee compliance with the conditions set forth in this production specification, the farms shall be subject to the following supervision regime.

To be part of the "protected production chain" as defined by Decree no. 298 dated 16 February 1993, breeders shall be accredited in advance and coded by the Certified Body.

For this purpose, the breeders shall file an application with the Certified Body; after carrying out the relevant checks, the Certified Body shall assign an alphanumeric identification code to each individual breeder, defined using the methods established by the control plan; it shall also provide the breeder with the relevant documentation, pre-numbered and pre-coded, which is necessary for the issue of the certification set out below.

Each accredited breeder shall apply an indelible stamp bearing the identification code of the place of origin and the alphabetic code used depending on the month in which the animal was born, to the hind leg of each pig, within the thirtieth day from the pig's birth.

This stamp is affixed through the application of an indelible and permanent tattoo, even "post mortem", on the side of both the piglet's legs using a suitable compression tool, on an area located just below a horizontal line starting from the knee-cap and corresponding to the lower part of the biceps femoris.

In the event that a stamped pig is transferred to another breeding farm, the latter shall have been previously accredited by the Certified Body and shall affix a new stamp bearing its own identification code on both of the pig's legs, so that it is indelible and permanent even "post mortem". In the above case, in order to satisfy the requirements associated with animal welfare, the second stamp can be replaced by indicating the code of origin applied according to the prescribed procedures on the documents accompanying the pig batches in each transaction or transfer and in the records and cross-checks carried out by the control organisation. Product traceability is also ensured by the recording procedures adopted by the abattoir, subject to systematic inspection and validation by the Certified Body.

The second stamp (if any) shall be applied on the side of the pig's leg, covering a maximum surface area of 45 millimetres by 85 millimetres, making sure that it does not overlap with the existing stamp and, preferably, no later than the eighth month of age, but at any rate before sending the pig for slaughter.

The breeder is required to issue a certificate for the pigs sent for slaughter, stating the animal's conformity with the requirements and specific conditions stated in this production specification.

To this end, at the time of shipping the pigs to a accredited abattoir, the breeder shall draw up, in triplicate, the certificate for which the Certified Body has provided the documentation in advance.

The pre-numbered and pre-coded certificate identifies the breeder and shall be dated and signed by the latter. It states conformity with the production requirements in this specification and also contains the abbreviation of the genotypes used, the number of pigs and the relevant destination.

The criteria and procedures for filling in, handling, use and circulation of certificates are governed by the approved control plan.

Breeders are required to allow any form of control for the purpose of ascertaining proper fulfilment of their obligations deriving from this specification, including the inspections necessary to verify suitability of the premises and equipment and observance of the production requirements.

As provided by Decree no. 298 dated 16 February 1993, the official vet responsible for the territory shall provide the Certified Body, at its request, with all official records deemed necessary to check the regular performance of the operations specified in this specification, as well as for all measures deemed necessary by breeders and slaughterers.

In order to guarantee observance of the conditions set out in this specification, abattoirs shall subject themselves to the following control system.

Abattoirs that intend to supply fresh pig legs for the production of San Daniele ham shall file an application with the Certified Body to obtain the necessary accreditation.

This application shall be accompanied by documents certifying the possession of health authorisation and compliance with the hygiene and safety requirements required by the current legislation.

After carrying out the necessary checks, the Certified Body shall assign an identification code to the abattoir and supply one or more stamps intended for affixing to the fresh pig legs intended for the production of San Daniele ham.

The slaughterer shall apply an indelible firebrand on fresh pig legs provided with a stamp or stamps affixed by the breeder and delivered with a copy of the required certificate, after having ensured compliance with the requirements specified in Section B above.

The above specified firebrand bears the identification code of the abattoir and is defined by special directives given by the Certified Body; it bears the identification code of the abattoir where slaughtering has taken place and is imprinted on the rind.

The slaughterer shall attach to each individual batch of fresh legs, to which it has affixed its own stamp, an original or a copy of the certificate obtained from the breeder of the relevant pigs.

If the certificate originally issued by the breeder refers to pigs whose legs are intended for different curing plants or separate supplies, the slaughterer shall attach to each single consignment of fresh legs a copy of the same certificate, together with a summarising document or any other documents requested by the Certified Body, drawn up and circulated according to its instructions.

Accredited cutting plants shall be subject to the same obligations as the abattoir, as set out in this specification, and shall attach the specified documentation together with a photocopy of documents which, in accordance with the administrative and health provisions in force, have accompanied the transfer of pork halves or other cuts from one of the accredited abattoirs.

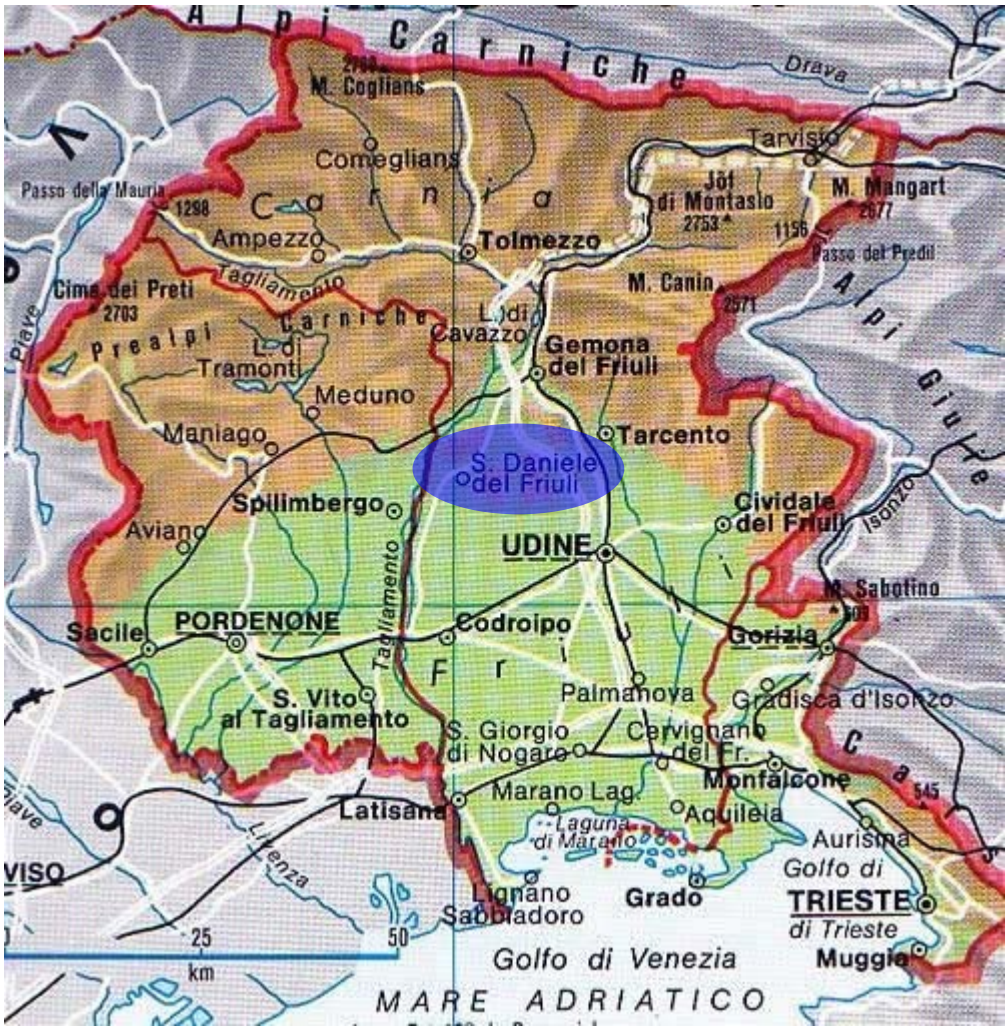
Slaughterers are required to allow any form of control for the purpose of ascertaining proper fulfilment of the obligations imposed on them by this specification, including the inspections necessary to verify suitability of the premises and equipment and observance of the production requirements.

Breeders and slaughterers who are found to present serious non-conformities and illegalities, including false declarations or falsifications, shall be punished in accordance with the legislation in force and, in particular, in accordance with Legislative Decree no. 297 dated 19 November 2004.

Such circumstances shall be determined and reported by the Certified Body and other supervisory bodies appointed for this purpose, within the bounds of their specific competence and in accordance with the laws in force.

The Certified Body shall also directly undertake the control and systematic checking of the obligations pertaining to stamping and certification by breeders and slaughterers in accordance with the procedures specified in the approved control plans.

MAP 1: Friuli Venezia Giulia region with San Daniele



MAP 2:
The ten regions of origin of the raw material

Feeding of pigs intended for the production of San Daniele ham:

TABLE A – Feed admitted up to 80 kilograms of live weight (All types of feed that can be used in the fattening period, in suitable concentration, as well as those listed below) The presence of dry matter from grains shall not be lower than 45% of the total		
Corn gluten flour and/or corn gluten feed	d.m.:	Up to 5% of the d.m. in the ration
De-stoned carob beans	d.m.:	Up to 3% of the d.m. in the ration
Meat meal (only good quality and where allowed by EC regulations)	d.m.:	Up to 2% of the d.m. in the ration
Fish meal	d.m.:	Up to 1% of the d.m. in the ration
Soybean extraction meal	d.m.:	Up to a maximum of 20%
Distillers	d.m.:	Up to 3% of the d.m. in the ration
Buttermilk	d.m.:	Up to a maximum of 6 litres/head per day
Lipids with a melting point higher than 36°C	d.m.:	Up to 2% of the d.m. in the ration
Protein lysates	d.m.:	Up to 1% of the d.m. in the ration
Corn silage	d.m.:	Up to 10% of the d.m. in the ration

d.m. = dry matter

TABLE B – Feed admitted during the fattening phase **(The presence of dry matter from grains during the fattening phase shall not be lower than 55% of the total)**		
Corn	d.m.:	Up to 55% of the d.m. in the ration
Kernel and/or corn cob mash	d.m.:	Up to 55% of the d.m. in the ration
Sorghum	d.m.:	Up to 40% of the d.m. in the ration
Barley	d.m.:	Up to 40% of the d.m. in the ration
Wheat	d.m.:	Up to 25% of the d.m. in the ration
Triticale	d.m.:	Up to 25% of the d.m. in the ration
Oats	d.m.:	Up to 25% of the d.m. in the ration
Minor grains	d.m.:	Up to 25% of the d.m. in the ration
Bran and other by-products of wheat processing	d.m.:	Up to 20% of the d.m. in the ration
Dehydrated potato	d.m.:	Up to 15% of the d.m. in the ration
Cassava	d.m.:	Up to 5% of the d.m. in the ration
Surpressed beet pulp silage	d.m.:	Up to 15% of the d.m. in the ration
Expeller pressed flax	d.m.:	Up to 2% of the d.m. in the ration
Dried exhausted beet pulp	d.m.:	Up to 4% of the d.m. in the ration
Apple and pear residue; grape and tomato skins as supplement carriers	d.m.:	Up to 2% of the d.m. in the ration
Whey	d.m.:	Up to a maximum of 15 litres head/day
Buttermilk	d.m.:	Up to a maximum intake of d.m. of 250 grams head/day
Dehydrated alfalfa meal	d.m.:	Up to 2% of the d.m. in the ration
Molasses	d.m.:	Up to 5% of the d.m. in the ration
Soybean extraction meal	d.m.:	Up to 15% of the d.m. in the ration
Sunflower extraction meal	d.m.:	Up to 8% of the d.m. in the ration
Sesame extraction meal	d.m.:	Up to 3% of the d.m. in the ration

Coconut extraction meal	d.m.:	Up to 5% of the d.m. in the ration
Corn germ meal	d.m.:	Up to 5% of the d.m. in the ration
Peas and/or other leguminous seeds	d.m.:	Up to 5% of the d.m. in the ration
Brewer's and/or torula yeast	d.m.:	Up to 2% of the d.m. in the ration
Lipids with a melting point higher than 40°C	d.m.:	Up to 2% of the d.m. in the ration

REFERENCE DOCUMENTS FOR SECTION C

- Full text of the Directive concerning branding regulations
- Full text of the Directives concerning coding and certification of breeders
- Full text of the Directives concerning recognition of slaughterers and use of the relevant stamp
- Additional accompanying and summarising documentation for certificates, sent by slaughterers
- Art. 60 of Law no. 142 dated 19 February 1992
- Legislative Decree no. 297 dated 19/11/2004

SECTION D

PRODUCT ORIGIN
IN RELATION TO THE GEOGRAPHICAL AREA

The indication of the elements proving that the product originates in the geographical area referred to in the designation of origin shall necessarily include the definition as established in Section C above.

Specifically:

San Daniele ham certainly originates in the geographical area of San Daniele del Friuli and its characteristics are essentially due to the geographical environment, including the relevant natural and human factors: furthermore, its processing takes place exclusively in the defined geographical area;

At the same time, the raw material used for the preparation of San Daniele ham originates in the geographical area defined in this specification, where its production exclusively takes place, and its characteristics are essentially due to the environment, including the relevant natural and human factors.

Before its recognition as a Protected Designation of Origin product, implemented with EC Regulation no. 1107/96 dated 12 June 2006 in accordance with EEC Reg. no. 2081/92, the designation "prosciutto di San Daniele" had already been recognised by the Italian State as a designation of origin at national level (and it had also been recognised as a designation of origin in countries with which specific bilateral agreements had been drawn up with Italy for this purpose).

The preliminary prerequisites indicated in the above-mentioned paragraph 4 have been illustrated and are satisfied in Section C above of this specification.

The points set out in the present section are all demonstrated by legislative, historical and socio-economic evidence.

From a legislative perspective, reference is made to Law of the Italian Republic no. 30 dated 14 February 1990, with the explicit and exclusive object of the "Designation of Origin of Prosciutto di San Daniele", abrogating and replacing previous Law no. 507 dated 4 July 1970, with the same objective.

From a historical perspective, the production of ham in San Daniele del Friuli has been documented since the time of the transition from oral tradition to the written transcription of facts and events. Specifically:

Given that the production of dry-cured ham is part of the historical culture of the whole of Northern Italy, in San Daniele ham production is notably attributed to the influence exerted by the Celtic and pre-Roman culture of preserving pig legs by salting them, considering the resulting product to be a "King's Dish" or, at any rate, intended for warriors who had distinguished themselves by particularly heroic and courageous deeds;

San Daniele del Friuli – a settlement which certainly preceded the era of Roman colonisation – is situated in an area populated by Celtic peoples and its territory is frequently characterised by the presence of the remains of "castellieri", the typical Celtic constructions used for military purposes;

In the Roman era, San Daniele was certainly the site of a "villa" (cf. the findings after the earthquake of 1976) and was completely subject to the products of this culture, particularly felt in Friuli ("Forum Julii") from the Republican period;

At the end of Longobard domination – which did not produce any significant changes to long-established traditions – San Daniele for a long time belonged to the feud of the Patriarch of Aquileia (Earl-Bishop and Imperial Elector), who promoted the current urban settlement and allowed the progressive emancipation of the "free San Daniele community" towards the structure of "free commune", governed by its own jurisdictional system and with autonomous, even if limited, judicial powers;

It is with the institutional structure of "free commune" that the "Annales" of the community are found and, with them, the first written documents which allow us to evaluate the importance and role of ham production in San Daniele del Friuli;

For the purposes of this specification and to avoid overloading it with excessive documentary and bibliographical citations, reference is made to P.L.Rebellato, E.Santese "San Daniele, dal persutto al prosciutto" Biblioteca Cominiana, 1993, which summarises the results of historical and archival research undertaken at the Guarneriana Civic Library in San Daniele del Friuli (national monument, built in the fifteenth century);

It is, however, evident that the documentation supporting the originality of the product with reference to the designation and the area of origin offers further ample proof; the detail of the relevant bibliography is now available for anyone who is interested in consulting it.

But the evidence of the historical and socio-economic factors and motivations can better be evaluated in the context of an overall discussion of the production phenomenon, which considers the parallel evolution of the historical-economical motivations for agricultural production and the transformation of the cured product, in the permanent modulation existing between the historical development of the area of origin of the raw material and the qualification of the area of origin of the transformed product.

The joint historical analysis of the relevant motivations is essential to "historicise" and explain the complex economical phenomenon which helps to define the originality of the designation.

Reference is also made to the treatments in the appendix and in A. Caleffi "Il suino pesante italiano: tipo genetico, qualità delle carni e tecniche di allevamento" [*The Italian heavy pigs: genetic type, meat quality and breeding techniques*], which refer to the bibliographical research obtained and made available, and in G. Ballarini "I fattori di produzione del prosciutto: origini preistoriche e storiche del prosciutto di maiale nell'area padana" [*The factors of ham production: prehistoric and historical origins of the pork ham in the Po Valley area*].

In any case it is certain that, having acquired the historical motivation for the differentiation existing between the different geographical areas – "micro", that of transformation, and "macro", that of production of the raw material – which at any rate coincide in a cultural, historical and socio-economical "continuum" modulated differently over time, the quality and characteristics of the designation of origin product depend exclusively on the geographical environment – including natural and human factors which have over time exerted their influence on the defined area in the manner considered in this specification – which defines an area whose product is certainly original.

A further confirmation can be found in the points considered in Section F below, which picks up and develops some of the previous considerations, with regard to the "link" with the geographical environment.

PIG BREEDING IN NORTHERN ITALY AND ITS DEVELOPMENT IN HISTORY

From the many bone fragments unearthed in numerous excavation sites, it may be assumed that pig, cattle and sheep breeding first developed in Northern Italy during the Neolithic period.

On the basis of bone fragments found in a homogeneous proportion, however, animals were initially bred to purely satisfy the needs of family or village.

Only in the Etruscan period was there any type of stable and specialised breeding activities for the production of pork and beef, wool, milk and its derivatives, intended to satisfy local requirements as well as for export.

The excavation sites at Forcello are of particular note. This Etruscan settlement (5^{th} century B.C.) situated south of Mantua, on the right bank of the Mincio river, is not far from Andes, the town where Virgil was born.

A large number of archaeological findings were unearthed here, including 50,000 animal bone fragments, of which 60% belonged to pigs. This clearly indicates the Etruscans' preference for pig breeding, closely followed by sheep and cattle.

A study of the bones has shown that the pigs were slaughtered when they were between 2 and 3 years old, and that the number of bones from hind legs were proportionally fewer.

The archaeology experts who studied this phenomenon put it like this: "Since the studied sample is broad and representative, this fact cannot be casual and leads us to believe that pig legs were salted and/or smoked for export" (P. Olivieri del Castillo – "Il suino nel Mantovano, cenni storici" – 1990).
These experts formulated the theory that salted pork went via the Mediterranean together with grain to the markets of Athens. Indeed – they affirm – ancient Greek sources extol the variety of foreign goods coming from the Mediterranean, including meat from Italy.

The pig population of Central Northern Italy

Pig breeding has always been one of the most important sectors of the Italian livestock industry.

According to the livestock census of 1908, there were 2,507,798 pigs in Italy, of which 322,099 were sows.

In 1926, according to Fotticchia, a total of 2,750,000 pigs were bred in Italy: 1,400,000 in Northern Italy and 570,000 in Central Italy (Tuscany, Umbria, Lazio and Marche).

From the turn of the century up until the First World War, there were three traditional types of breeding farms in Italy:
- family-run-farms, once the most prevalent type in the Po Valley, which raised a small number of animals that were generally well-tended and fed with kitchen scraps and vegetables. These animals were mainly slaughtered to feed the family, but some were sold to local butcher's shops. This type of farm gradually disappeared as specialised animal breeding farms became more prevalent;

- wild or semi-wild pig breeding was prevalent along the Apennine Mountains and foothills, in the Lombard, Venitian and Friulian Prealps, where there were many oak forests and thickets;

- industrial farming was already prevalent in Lombardy and Emilia in the last century because it was connected to dairies for the production of dairy by-products (whey and buttermilk), flour mills (flour and various types of bran) and rice factories (rice husks).

Modern pig farms as we know them today first appeared in Italy in 1872. In fact, in this year the Ministry of Agriculture, through the Experimental Zootechnical Institute of Reggio Emilia, imported the first Yorkshire breeding pigs from the UK to several Po Valley provinces.

Indigenous breeds

There were many indigenous breeds in Italy. However, with the introduction of the Yorkshire pig and repeated cross-breeding to obtain more easily fattened, faster-growing pigs with less bone mass, these local breeds became less important and lost their identity.

The most widespread breeds bred in Central and Northern Italy, still present at the beginning of the First World War, were the following:

- Piedmont: There were two autochthonous breeds in Piedmont. One was the Cavour pig with a black coat, drooping ears and white face mask, which was bred on the right bank of the Po River. The other was the Garlasco pig, which was bred on the left bank. It was a smaller breed with a reddish-gold hide and coat. Both breeds were sturdy, fast-growing and suited to grazing.

- Lombardy: The large Lombard breed with reddish-black coat and white spots was easy to fatten up, and could weigh as much as 200-220 kilos at the end of fattening.

- Emilia: The Parmigiana breed was found throughout the areas of Parma and Piacenza and in part of the Reggio Emilia area. It was characterised by a very dark grey coat with sparse black bristles. A very prolific, tall, sturdy breed, it grazed for most of the year.

Another Emilia breed was the Bolognese pig, which was found in a larger area than the Parmigiana breed (Bologna, Modena and part of the Reggio Emilia area, Mantua and Veneto). It was bigger than the Parmigiana breed, had short, sparse bristles and a purplish-red skin. Its meat, as Marchi mentioned in his book written in 1914, "made the zamponi of Modena [*stuffed pig trotters*], the mortadella, shoulders and bondiole [*cured neck of pork*] of Bologna famous".

- Romagna: The dark brown Mora Romagnola breed was found throughout the region. Stanga (Suinicultura pratica, 1992) referred to it as a sub-breed of the Bolognese pig. The distinguishing characteristics of the Romagnola pig were its height (80-90 cm at the withers), its cylindrical trunk with convex dorsolumbar line and especially the so-called 'Sparta line', a sort of crest, "formed by strong thick bristles running down the spine" (Ballardini).

- Veneto: Besides the Lombard and Romagnola breeds, Veneto was also home to the Friulana breed. This rustic pig could easily be raised as a grazing animal or in a pen. Although its meat was very tasty, the animal was not a good breeder, very similar to Styrian and Croatian pigs.

- Tuscany: Three breeds were raised in this region, which was rich in holm oak, oak, chestnut and Turkey oak forests and ideal for pig grazing: the Siena Belted, the Cappuccia and the Maremmana pigs. The most important of these was the Siena Belted, a long, tall pig with a cylindrical trunk, convex back and frequently retracted ventral line.

Other characteristics of this breed are a very long head, small ears facing forward and a slate grey coat with fine, bushy bristles. It has a white stripe that starts from the withers, travels down the shoulders, circles the trunk and even extends to the front legs. The Siena Belted pig was prolific and fast-growing. Dondi accurately describes it, saying "The meat is excellent and very tasty. Cold cuts from Siena are famous, especially the sausages, mortadella and hams that are produced in great quantities by local factories that primarily use animals raised in the mountain of Siena". Mascheroni (Zootecnica speciale, 1927) affirms that "This breed is raised and fattened in the forests during both summer and winter. It only returns to the pigsty at night. Its diet is primarily based on acorns from oaks and holm oaks, whose production varies a lot, with the integration of mash, chestnut flour, corn and bran".

- Umbria: The Umbrian pig population, generically called Perugina, varied greatly between mountainous areas and the plain.

The "scrub" pigs that lived in the mountains had a dark coat covered with thick bristles, a long head and droopy ears. These strong, rustic pigs lived in herds in the forests. There were also Perugina pigs belonging to the hills and plains that were very similar to the Cappuccia breed from Tuscany. They were characterised by their tall stature, medium-sized head and drooping ears, convex back, slanting rump and rather slim haunches and buttocks. They had a slate grey coat with sparse bristles and almost always white markings on their limbs.

They were reared as semi-wild grazing animals in the hills and plains, which had wooded areas. If there were no grazing areas, they were generally bred for producing suckling pigs, and only a few animals were fattened for meat.

From autochthonous breeds to modern pig farming

The replacement of local pigs with selected, more productive species – a process that had already begun at the end of the last century – took place very slowly and gradually, especially in the first few decades. This was not due to difficulties in acquiring and introducing new breeds in the primary sector, but because breeding techniques also developed very slowly and gradually.

As long as wild and semi-wild grazing systems were the most common and most economical way to fatten pigs in many regions, the animal's sturdiness, resistance, suitability for grazing and, more generally, its ability to scavenge for food, were indispensable conditions and priorities; these characteristics are typical of autochthonous breeds, which became established in the region through natural selection.

During the period between the two World Wars and also after the large increase in dairy farms in the Po Valley, farms connected with dairies gradually increased their demand for suckling and young pigs.

Farms that bred pigs for fattening preferred large and sufficiently rustic animals that would eat whey, bran and flour, characteristics that were found in the offspring of local species crossbred with Yorkshire Large Whites.

At the same time, since the wild and semi-wild pig grazing system used in Emilia Romagna, Tuscany and Umbria was in decline due to deforestation, there was an increase in sow breeding to produce piglets, which were sought after by pig-fattening farmers in the Po Valley.

This subdivision of roles in pig farming by different regions favoured and accelerated the existing cross-breeding process of pig populations – especially the rustic, good-sized Romagnola, Siena belted, Perugina and the Cappuccia – with faster-growing and more select Large White boars.

It should be noted that, despite the growth in the number of industrial pig farms, the practice of fattening pigs up to a weight of 160-180 kg and more was prevalent and increased during this particular period.

The reason for this lies in the fact that both pig breeding farmers and industrial pig farms decided to breed heavy pigs.

Then as now, the industry needed heavy carcasses to provide mature meat, suitable for providing processed and cured products, ham being at the foremost, with those superlative oganoleptic qualities that have brought Italian cold meat products worldwide fame.

Dairies in the Emilia and lower Lombardy regions, which mainly produced “Grana” cheese, started production in the spring after cows had given birth and calves were weaned. Production terminated at the end of November, when the cow’s milk had dried up.

Pigs, bred for the consumption of whey and buttermilk, were therefore bought in March and weighed about 35-45 kilos (young pigs). They were sold after the dairies closed during the winter, which was the best time for meat processing, since refrigerators still did not exist. During the 9 to 10 months in the pigsty, the pig reached 160-180 kilograms in weight. Heavy pigs therefore satisfied the needs of the market and those of the dairies.
On the other hand, a one-year cycle was a better way to absorb reproduction costs and to contain losses due to illness and death, which were much more frequent during periods of acclimatisation. One criticism of this system was the large amount of food needed during the last fattening stage to produce 1 kilo of extra weight. However, it should be borne in mind that during this stage, more than one third of the diet’s nutritional value was provided by fresh whey, which was readily available.

The crossbreeding of Large White boars and local sows continued for some years, also after the Second World War. However, due to repeated cross-breeding to obtain animals that were more suitable for the dairies, the autochthonous breeds decreased in number and importance, finally disappearing altogether, and were eventually replaced by a population with the same characteristics as the Large White breed.

“Smoky” pigs (Large White x Romagnola) from the Cesena market and “grey” or “banded” pigs from Tuscany (Large White x Siena Belted) were still present in a few Lombard dairy pigsties at the beginning of the fifties, but already there was a preference for pigs with a completely white coat, because they were considered to contain less fat.

Dietary habits were changing; fat consumption was decreasing and meat consumption increasing; the market was increasingly oriented towards pigs that predominantly had lean cuts.

In order to adapt production to these changes, Landrace breeding pigs were initially imported from Sweden. These were especially lean with well-developed legs, and were used to cover Large White sows. But the offspring of this cross, fattened in the pigsties of the North, did not give the desired results. The Swedish Landrace was too small in bulk and skeleton to produce the heavy pig required by the market.

Far better results were achieved by subsequently importing large Dutch Landrace pigs.

During this same period, due to better information about diet and the development of the animal feed industry, specialised pig breeding farms that were not connected to dairies began to make their appearance, as whey was no longer an essential element of the pig's diet.

Owing to these new developments, the pig population in Italy, especially in the North, grew considerably.

From an average population of 3,320,000 pigs in the five-year period from 1951 to 1955, the population grew to 4,800,000 in 1962.

In Mantua Province alone during this same period, the pig population increased from 160,000 to 400,000.

As dairy production increased, so did the number of dairies and pig fattening farms. However, also contributing to the increase in the number of pigs were specialised pig breeding farms, for the most part without grazing land, which were not connected with dairies. These farms were run by entrepreneurs who also came from other non-agricultural businesses and focused more on pig reproduction rather than pig fattening.
There was an increase in farms registered with herd books. A serious selection program of Large White and Landrace breeds was launched with the help of Genetic Control Centres set up by the Ministry of Agriculture (1960).

The foundations were therefore laid for modern pig farming, always aimed at the production of heavy pigs that met the requirements made by a processing industry in continuous and rapid expansion.

Many important new technologies were introduced in pig breeding farms between 1960 and 1970, especially concerning reproduction, resulting in a complete revolutionisation of pig farming.

In just a few years, breeding farms went from having a small number of pens containing just a few pigs, a necessary measure to prevent dangerous diseases from spreading among the piglets, to rearing hundreds of sows in industrial breeding units, which were often completely automated.

These innovations, which also permitted the production of piglets in the intensive pig breeding farms of the Po Valley, changed the balance that had lasted for many decades between the northern regions (farms mainly for fattening pigs) and central regions (farms specialising in reproduction).

While pig farming in the north was strengthened and developed, Romagna, Tuscany and Umbria in particular were forced by the new directions to completely reorganise the entire pig farming sector.

The pig population in Italy grew from 4,800,000 in 1962 to 9,014,000 in 1981, with an average annual growth rate of 4.4%.

In the following years, up to 1987, the number of pigs continued to grow, but at a slower rate compared to the previous decade. However, due to the above-mentioned problems, this development was less evident in Central Italy.

According to the Italian National Statistics Institute data, in 1970 the Italian pig population comprised 56% in the north, 26.3% in the centre and 17.7% in the south.

In 1985 the percentage of pigs counted rose to 72.2% in the northern regions, while it decreased to 16.9% and 10.9% in central and southern regions respectively.

REFERENCE DOCUMENTS FOR SECTION D

Bibliographical notes relating to sections D and F

SECTION E

METHOD BY WHICH THE PRODUCT IS OBTAINED

San Daniele ham production methods are provided for under Law of the Italian Republic No. 30, dated 14 February 1990 and under Decree No. 298, dated 16 February 1993 and, lastly, have been recognised by EC Regulation No. 1107 dated 12/06/1996. The procedures and requirements relating to the raw material, as set out in Sections B and C above of this specification, are also hereby confirmed.

The procedure for processing fresh pig legs meeting the requirements set out in this specification is explained below, by listing the different stages of the production process.

SEPARATION AND COOLING

The fresh pig legs are unloaded from the vehicle used to transport them from the abattoir and are immediately subjected to the necessary controls;

The fresh legs considered suitable are then transferred to a special cold room, where they remain in order to standardise the temperature conditions of the meat to around 0 °C;

This procedure ideally prepares the meat for the subsequent operations.

TRIMMING

After cooling, the legs are trimmed, which consists in removing the fat and muscle tissue on the inner side of the leg;

The aim of this procedure is to:

a) Correct any cutting imperfections, as regards the procedures described above in this specification;

b) Facilitate the development of optimal conditions for the subsequent action of salt penetration;

c) Identify any detrimental technical conditions for the purposes of subsequent processing, including those indicated in the technical directive referred to in the DDA Marking Regulation No. 15/92 and the approved control plans.

SALTING

The trimmed legs are then salted. This procedure is carried out as follows.

The legs are sprinkled with salt at will, so that the exposed surface of the inner side is covered. The leg is kept horizontal for this operation.
The legs are massaged beforehand by manual or mechanical means, in order to prepare the meat to absorb the salt and to check that the blood has been fully drained from the meat, using appropriate pressure points.

Sea salt is exclusively used for salting. The use of other chemical substances, preservatives and additives is completely prohibited throughout the preparation process.

The dosage period of the salting process is based on the average weight of the batch being processed, and is defined as one day for each kilogram of weight for the relevant size.

The salted legs, constantly kept horizontal, are placed in a special cold room, where they remain at high humidity conditions and at a temperature varying between +3 °C and 0 °C for the period indicated above, which is suspended halfway through for the following purposes.

Halfway through the set salting period the legs are removed from the cold room and the residual salt is removed from the surface. The massage is repeated, and finally, further salt is sprinkled on, following the method described above.

The salted leg is replaced in the cold room and remains there until the process is complete, under the same ambient conditions.

PRESSING

The leg is removed from the cold room and brushed to remove the residual salt.

In this state the leg is subjected to pressing. During this procedure a uniform pressure is applied to the muscular mass, which is reduced in thickness and finally assumes a squashed guitar shape.

The force necessary for pressing is applied using mechanical or pneumatic devices, with a perpendicular action in relation to the leg.

The length of the procedure varies depending on the pressure applied, and is carried out in special rooms kept at a constant temperature and humidity.

The purposes of pressing are:

a) the application of a further stimulus to the draining of the femoral vein and its branches;
b) settling of the fat part in relation to the lean part which, among other things, facilitates the penetration of the salt;
c) the thickness of the muscular mass is reduced, subject to osmotic phenomena which are produced in the course of the subsequent phases.

RESTING

After pressing, the salted legs are placed in special rooms for a period ranging between 60 and 90 days, depending on unit weight and technological requirements, under humidity conditions varying between 70 and 80% and at a temperature between 4 and 6 °C.

During the resting phase the absorbed salt gradually penetrates inside the meat, becoming evenly distributed. The function necessary to continue the dehydration process, initiated with the salt treatment and the low temperatures, takes effect.

WASHING

Once the "resting" phase is complete, the leg is subjected to final "washing" by means of brushing or the application of jets of water (mixed with air) to the outer surface.

As well as having a generally revitalising effect, the washing process removes all surface formations produced during salting and resting as a result of dehydration, and tones the outer tissues. Before washing, the legs are "groomed" and tidied to compensate for the effects of the weight loss.

DRYING

After washing, the legs are transferred to an environment where a further "recovery" of the meat takes place in higher humidity conditions (around 90°) and at temperatures varying between 15° and 24 °C, for a period of 7-8 days.

The variability of the values is related to the subsequent treatment techniques, namely maturation.

This can be preceded by a PRE-MATURATION phase lasting 35 to 40 days, in which the process of recovery-acclimatisation of the meat continues at initial temperatures varying between 12 to 14 °C and final temperatures between 14 to 19 °C, in gradually decreasing humidity conditions.

MATURATION

After drying and pre-maturation, if applicable, the hams or "prosciutti" – as they are correctly called at this point, rather than pig legs – are transferred to special maturation halls. These halls have natural humidity and temperature conditions, as they are equipped with numerous windows, which are frequently opened. The windows are positioned so that they have a transverse effect in relation to the placement of the hams, which are thus continuously supplied with natural aeration.

Only when the external climatic and environmental conditions present irregularities or anomalies in comparison with normal seasonal trends is it permitted to use "domestic" air conditioning equipment – devices that use external air, at any rate.

The maturing process normally lasts eight months; the duration depends on the size of the batch and varies accordingly, subject to the minimum limits for the complete processing cycle described below. During the course of maturation biochemical and enzymatic processes take place in the meat, which complete the process of preservation induced by the preceding processes. These processes determine the characteristic organoleptic properties, thanks to the effect of the natural external environment (reduced humidity and natural ventilation, which determine the aroma and flavour of the product).

No specific processing procedure therefore takes place during maturation, except for the so-called "sugnatura" (or "stuccatura"). This refers to the process of smearing, performed once or twice by covering the surface of the exposed portion of ham with a paste comprising lard, salt, pepper and cereal derivatives, applied finely and uniformly by means of manual massage.

This preparation and its application have exclusively technical functions of softening the exposed external surface of the rind and, at the same time, protecting it from external agents, without compromising the continuation of the osmotic action. For this reason, Italian legislation does not consider the "sugna" or lard an ingredient (Article 18, Para. 3, of Decree No. 298 dated 16 February 1993).

During and after completion of maturation it is forbidden to add any substance or to repeat any preceding treatment, except for smearing and final washing if required. Smoking of the product is not permitted, and any forced maturation procedure is forbidden.

The minimum period for the duration of the total production process, from salting to completion of maturation, is defined below.

As the process duration is traditionally adapted to the unit average weight of the batch, for the purposes of this specification the minimum processing period ends in the twelfth month after salting; this period can be brought forward to the eleventh month, provided that it relates to uniform batches with an average initial unit weight (of the fresh pig legs) of less than 12.5 kilograms.

As an example, it can be confirmed that the statistical average unit weight during the last decade varies between 12 and 13 kilograms.

Calculation of completion of the process is therefore linked to the objective processing requirements, as well as to the product characteristics and conditions. The points set out in this Section E are therefore relevant for standardisation of the execution of controls and quality inspections relating to observance of the requirements laid down by this specification and, therefore, for application of the certification brand.

Indeed, for the purposes of this specification, completion of the production process is confirmed by application of the certification brand, which is a constituent of and characteristic of the designation of origin affixed according to the procedures described in this specification, in DDA Marking Regulation No. 15/92 and by the approved control plan.

To enable standardisation of the production method set out in this specification, the producers concerned must observe the requirements contained therein and, in addition, ensure compliance of their processing plants with the requirements specified below.

Processing plants (ham curing plants) wishing to produce San Daniele ham must be accredited in advance by the Certified Body. To obtain such accreditation, an application has to be filed, containing:

a) company name and registered office;

b) registered office of the plant in San Daniele del Friuli;

c) details of registration at the Chamber of Commerce, Industry, Agriculture and Craft Trades of Udine;

d) production capacity of the processing plant, expressed as the maximum total number of pig legs that can be processed during one calendar year;

e) details of the health approval conforming with current rules and regulations.

After carrying out the conformity checks, the Certified Body accredits the processing plant by allocating an identification number to it.

To be declared suitable for San Daniele ham production, processing plants must have obtained all hygiene and safety approvals provided for by current legislation and have to at least be equipped with:

– a room for receiving and initial treatment of pig legs;
rooms equipped with all the necessary machinery and installations in order to maintain humidity and temperature at the levels required by applicable rules and this specification, regarding the salting and resting periods;
other independent rooms that are suitable for ham maturation.

Maturation rooms have to be equipped with windows that are large enough to ensure optimum natural ventilation and adequate exchange of air. These rooms can be provided with equipment needed to maintain the right equilibrium and the thermal-hygrometric characteristics typical of the environment of the geographical area indicated in Map 1.

Any transfer of hams during processing from one accredited processing plant to another accredited processing plant, for whatever reason, shall only be permitted after six months of salting.

The transfer must always be authorised by the Certified Body, which shall specify the necessary procedures and carry out the necessary controls. The Certified Body can also oppose the transfer by means of written notice, giving reasons.

The transfer shall be allowed, contrary to the above requirements, only where reasons of force majeure exist which would be detrimental to the processing of the hams or cause their loss or deterioration.

All procedures specified in this Section E shall be subject to the controls carried out by the Certified Body.

Each single accredited processing plant must keep a special register, organised into monthly sheets; the records shall be entered in the monthly sheets corresponding to the month and year indicated on the seal applied to each individual fresh leg processed for the purposes of the PDO in the manner prescribed by this specification. This seal bears the traditional D.O.T. mark [*origin protected under Italian law*] followed by the date on which processing commenced, comprising the day (Arabic numerals), month (Roman numerals) and year (Arabic numerals), in accordance with the instructions given by the Certified Body according to the approved plans (hereinafter: “seal”).

The records relating to the product processed using the procedures provided for by this specification shall be noted in this register, in the form prescribed by Article 13, Para. 2, of Decree No. 298 dated 16 February 1993. Any decisions made by the Certified Body shall also be entered in the appropriate section of the register.

The producer shall be bound to observe the requirements contained in this specification and in the relevant control plans.

The producer shall also be bound to observe special requirements, relating to the control procedures and the relevant outcomes.

A summary is provided below of the control procedures implemented by the Certified Body, as mentioned in the Branding Regulation adopted with DDA No. 15/92 and in the approved control plans (the words Certified Body refer to the officials appointed by the Certified Body in the following).

For each batch of fresh pig legs received for the purpose of processing the designation of origin product, the producer must ask the Certified Body to carry out the controls necessary for affixing the seal.

The Certified Body shall carry out the inspections necessary to determine compliance with the requirements of this specification and authorise affixing of the seal, which is carried out by the producer;

The Certified Body shall record the outcome of the controls, using the procedures and formalities specified in the control plan approved by the Italian Ministry of Agriculture, Food and Forestry Policies. The Certified Body may prohibit affixing of the certification brand if the necessary requirements are not met, or if:

a) the legs are not accompanied by the documentation indicated in Section C;

b) the legs do not bear the stamps specified in Section C;

c) the legs are from pigs slaughtered less than 24 hours and more than 120 hours before;

d) the legs are not processed in compliance with the plan approved under the rules and regulations in force, this specification and the control plan.

For the purposes of letter c) above and, in any case, for control purposes, the Certified Body shall examine the accompanying health documents.

In cases where non-conformity with the provisions of this specification are ascertained after affixing the seal, the seal is removed by the Certified Body, who will then draw up a special report.

The producer may put forward his own reasons for disagreeing with the Certified Body and request that these are included in the report. The producer may also demand a new technical inspection of the disputed product.

The Certified Body can carry out controls and inspections during the actual processing stages, for the purpose of inspecting and examining the meat, making sure that registers and any other documentation are properly kept, as well as ensuring that the processing methods conform to the requirements of this specification.

For the purpose of authorising affixing of the certification brand to the matured ham, the Certified Body shall ensure the following:

a) Completion of the minimum processing period, as laid down by this specification;

b) Conformity with the processing procedures;

c) Absence of technological and quality impairments, as indicated in the approved control plan;

d) Conformity to the analytical parameters listed in Section B above, based on the results of the inspections carried out to implement the approved control plans;

e) Conformity to the organoleptic and quality requirements laid down by this specification.

For the above purposes, the Certified Body shall carry out the procedure of "spillatura" (this means testing the meat at several points using a fine needle made of horse bone, whose characteristics allow it to rapidly absorb the product's aroma and subsequently lose it again). This test is carried out on a number of hams in order to effectively judge their quality; if necessary, the Certified Body may examine the product by cutting up a maximum of five hams per thousand or a fraction of a thousand. In this case, the hams will then remain with the producer.

Organoleptic characteristics are judged as a whole and only very small deficiencies can be compensated for, if observance of the analytical parameters has been verified.

The certification brand is applied, in the presence and under the responsibility of the Certified Body, by the producer and can also be applied at several points on the ham's rind, in such a way as to remain visible up to the complete consumption of the product.

The Certified Body keeps the branding tools and gives them to its appointed officials, based on the operational programs arranged at the producers' request.

The branding tools bear the producer's identification number, which is therefore reproduced in one single tool comprising the certification brand.

For all control and branding operations, the Certified Body will draw up a special report.

(18) Hams that are not fit for the purposes of this specification will be deprived of the seal applied at the start of processing. The relevant procedure shall be defined by the Certified Body and carried out by the producer in the presence of the Certified Body, which shall record the relevant operations.

If the Certified Body establishes unfitness or non-conformity with the requirements in this specification, for whatever reason, of hams on which the certification brand has already been applied, it shall provide for its immediate removal. This shall be done by removing the relevant portion of rind or by superimposing another brand, so that the certification brand is completely hidden.

The Certified Body shall also record these operations. The producer shall have the right to request a new technical examination, as provided for above in this specification and by the approved control plan.

(19) Any requirements of the producer relating to the portioning of hams fit for affixing of the certification brand shall be notified to the Certified Body in advance, for the purposes of compliance with Article 25 of Decree No. 298 dated 16 February 1993.

(20) All aspects relating to the requirements necessary for packaging sliced San Daniele ham and the attendant controls by the Certified Body, are regulated by Articles 26/29 of Decree No. 298 dated 16 February 1993, and by the technical directives in force.

REFERENCE DOCUMENTS FOR SECTION E

- Full text of Directive 15/92, concerning control procedures
- Law No. 30 dated 14/02/90 and Ministerial Decree No. 298 dated 16/02/93 (already in Section A)

SECTION F

LINKS WITH GEOGRAPHICAL ENVIRONMENT

All explanations developed in Section D above and the conditions described in Section C above of this specification are hereby confirmed.

The general framework of the matters dealt with in this Section thus also utilises the general points made in Section D above, referred to in full here for the purposes of this specification.

INTRODUCTION

Po Valley hams and San Daniele ham in particular have their origins in two specific elements: the domestic pig and the production technologies, which also comprise the specific social conditions and the environmental types of breeding and production.

Indeed, there are "prosciutti", that is "prosciugatissime" or "perxuctus" legs from wild and domestic pigs, but produced with different technologies to those of the Po Valley, and in particular San Daniele ham, Parma ham, Modena ham and Veneto ham.

Today it has been recognised that, from a social and cultural perspective, but particularly in relation to the production technologies developed and preserved by tradition, the Po Valley constitutes a distinct unit. This also refers to breeding of the pig and in particular to the processing of certain premium parts, like the leg from which the ham (or prosciutto) originates. This unit has become differentiated over time, giving rise to *Prosciutto di San Daniele, Prosciutto di Parma, Prosciutto di Modena and Prosciutto Veneto.*

Today therefore, although they have common roots, the four Po Valley hams mentioned above have their own specific individuality.

In order to understand the "uniqueness" and also the "multiplicity" of the Po Valley hams, it is necessary to look back, at least briefly, to the origins of the domestic Po Valley pig. It is necessary to consider its development over time and the local differences, together with the emergence and development of ham processing and production technologies. The following account is dedicated to this huge field of research, much of which has been explored today, but where important progress has also been made recently.

THE PO VALLEY PIG

Origins of the domestic Po Valley pig

The pig is an intelligent animal, which is relatively easy to domesticate. It is an omnivore and easy to feed even with "scraps". Hence its transformation from a wild pig to a domesticated one has taken place many times, in different places, starting with different pig breeds, varieties and sub-varieties. This is why each "cultural region" has its "own pig", and the Po Valley is no exception.

For a very long time, and in every cultural area or region, the pig was only partially domesticated. Only in relatively recent times has the pig become a true "domestic pig", meaning completely dependent on humans. Lately, this dependency has been further emphasised through the 'technicalisation' of breeding farms, producing an animal called the "technological pig" or the "industrial pig".

All of this further complicates the answer to the questions: when, where and how did the pig become domesticated (Bokonyi et al., 1973).

According to Pound (1983) the origins of pig domestication are lost in history. It is believed that the first attempt was made in around 6740 B.C. in the area now known as Iraq. On the other hand, a Chinese study has asserted that domestic animals were found in his country up to 2900 B.C.. Clutton-Brock (1981) identifies a much larger area extending from Japan to Portugal and North Africa. Probably domestication was originally favoured by the fact that the pig was considered an efficient scavenger, consuming any type of edible waste. This is its role in many developing countries.

The problem of the "origin" of the domestic pig is further complicated by the fact that there are many different pigs, or rather wild pigs, and their "classification" is still controversial and evolving, due to constantly new taxonomic criteria (Hoyny, 1973-1974). Marcuzzi and Vannozzi (1981), in addition to *Sus scrofa* with its different varieties (*S.s. attila, ferus, nigripes, palustris, ussuricus*), record *Sus cristatus, Sus indicus, Sus mediterraneus, Sus meridionalis, Sus palustris* (and its variety *S.p. rutimeyeri*), *Sus vittatus.* These classifications are also made on a morphological basis, and taking account of the huge plasticity of the species, it is extremely doubtful that these are true "species"; it is much more likely that they are local "breeds" or "varieties".

The wild *Sus scrofa* or boar, as it is known, was widespread throughout the ancient world (Europe, Western Asia, North Africa, some areas of Eastern Asia); the *Sus cristanus* was widespread in Nepal and North India; the *Sus vittatus* was present in Eastern Asia and particularly China (Marcuzzi and Vannozzi, 1981, Forni, 1976; Keller, 1909-1913; Bokonyi et al., 1973).

The domestication of the pig, or at least its initial domestication, almost certainly took place in many places and at different times. The first of these appears to be in the Chinese area, where *Sus cristalus* and *Sus vittalus* were domesticated during the Neolithic Age (Marcuzzi and Vannozzi, 1981). The earliest evidence of pigs with "domestic" characteristics is in Burma. Darwin (1868) had already pointed out that domesticated pigs or pigs kept in captivity lose up to 20% of their encephalic weight, and this also applies for humans imprisoned for long periods of time. This criterion indicates whether a skull belongs to a wild or domestic pig. Another proof of domestication based on fossilised remains is the length of the crown of the third molar; it has been statistically proved that domestication has a negative influence on its length (Marcuzzi and Vannozzi, 1981).

According to Forni (1976), the pig as a "rooting", anthropophilic or at least sinanthropic animal accepted or tolerated and with the beginnings of domestication, was present in Eurasia from the 8th to the 9th millennium B.C.. However, the first "true" rearing of pigs took place in Mesopotamia, Iran and Iraq in around 3500 B.C., or at least pigs already presented significant morphological changes at this time. A Sumerian statue dated 2500 B.C. represents a fat pig, without bristles, with long drooping ears, completely different to contemporary wild pigs.

Pigs had not been domesticated in Europe, but came to Europe from Eastern regions in several stages and from various breeds and types. However, it is not easy to establish a chronology, partly because the wild pig or boar existed in Europe, and this was crossbred with semi-domestic or domestic pigs. Generally pig rearing was wild or semi-wild, and pigs were present relatively rarely in villages or cities. According to Keller (1909-1913) the

domestic *S. indicus* – the same as the one found at Ninive – was present in Swiss pile dwellings. At the end of the Neolithic Age (Maruzzi and Vannozzi, 1981) three types of domestic pig were present in these human settlements: one derived from the local *Sus scrofa*, large and suitable for grazing, and evidently kept in wild or semi-wild conditions; a second, smaller animal related to the above-mentioned *indicus*, kept in the pile-dwelling area; and a third very small pig which, like the little Chinese pig, probably lived in huts.

Domestic pigs were certainly present in Europe in the Neolithic Age, specifically on the Iberian Peninsula, in Southern and Western France, Arene Candide, Rhineland, Sardinia and in the aforementioned Switzerland. In Central Europe pigs were bred since the time of the first "linear pottery culture" (Muller-Karope, 1968) and appeared in Hungary with the Tisza culture.

In Italy, in addition to the previously mentioned findings from the Neolithic Age at Arene Candide, the domestic pig could be found in the Bronze Age in the pile-dwellings of Ledro (South-West Trentino) (Riedel, 1976). The turbary pigs found in the peat-bogs of Garda or *Sus palustris* could perhaps derive from *Sus meridionalis*, present in Sardinia and Maremma, unless it is a product of domestication (Riedel, 1955-1956). At Barche di Solferino, Isolone (Bronze Age) and Colombare (Encolithic) in the Veneto, Riedel (1976; 1948; 1948/50; 1957; 1950) also finds pigs, boars and intermediate forms thought to be the result of crossbreeding. At S. Bricco di Lavagno near Verona (Riedel, 1940/50), in the Iron Age, domestic animals clearly prevail over wild ones; the pig is of a substantial size and can perhaps be traced back to *Sus palustris* (Riedel, 1940-1950). Remains of domestic pigs are also found in Venezia Giulia in the context of the 'castellieri' culture, in the late Iron Age – Roman Era (Riedel, 1951; 1950; 1957). The research of Moroni and Annermann (1970) on Venetian pigs should also be remembered.

The pig may have been domesticated in Europe, but it is much more likely that it was already domesticated when first imported from the East, with European autochthonous pigs being domesticated afterwards (the existing wild boar – known as *Sus scrofa ferus* – is supposedly the descendent of these pigs). Nevertheless, through crossbreeding of the imported *Sus vittatus* and the autochthonous *Sus scrofa*, the domestication process of the pig predominantly took place in Mediterranean Europe. Indeed, it is apparent that during the prehistoric age, pig domestication mainly took place in Northern Italy (Alps, Pre-Alps, Po Valley) and this depended on the type of vegetation that was predominant at the time. In effect the pig is a "wild" animal which mainly eats berries and fruit found in woods and forests, such as acorns.

We can therefore assume that semi-domestication of the pig occurred in Northern Italy, primarily in the Po Valley area and especially within the Celtic civilization.

In the Mediterranean area, however, small ruminants (sheep and goats) and shepherding prevailed. Pigs were still present but in limited numbers, also in the most typically Mediterranean area. Purely as an example, the pig was a "work animal" in Egypt, breaking up the earth by rooting in it and walking on it: after the floods of the Nile, pigs rooted out worms with their snouts and hooves, thus making furrows in the mud which were a perfect depth for sowing wheat.

Linguistic research (Devoto, 1962; Benveniste, 1969, 1976) recently analysed by Marcuzzi and Vannozzi (1981) in relation to the area of Indo-European languages, shows that the Indo-European derivation "*us*" and "*sus*" is used without distinction for boar (wild pig) and domestic pig. The derivation "porko", on the other hand, denotes young and suckling animals in particular (Marcuzzi and Vannozzi, 1981; Benveniste, 1969), and is most frequently used for animals for slaughter, hence the term "porchetta" [*spitroasted suckling pork*].

The Po Valley pig in history

We can therefore assume that during the slow passage between the prehistoric age and the historic age, the Po Valley was inhabited by several "types" of pig, which differed more in size and habits than in any other way. All belonged to a single biological "species", which meant reciprocal fecund crossbreeding was possible.

The wild boar (*Sus scrofa ferus*) roamed freely in the vast woodlands and/or marshes of the plains and in the undergrowth of the hills and mountains. It ate woodland fruit, especially acorns, and was a hunting prey. Herds of relatively large semi-domesticated pigs with continuous possibility of interbreeding with wild boars, lived in the woods surrounding human settlements. Humans would capture piglets from these herds for food. Smaller, tamer pigs also lived in close contact with humans, in their villages and homes, and were fed with leftovers.

Right from the beginning of human civilisation, the pig has thus assumed two aspects: that of a "wild" animal, in contrast to "grazing" animals such as sheep, and that of an "urban" animal as well.

Information on pig breeding during the Etruscan period and in the Po Valley, also mentioned by Dancer (1984), may be found in the writings of Polybius (Storie, XII, 4) and those of M.T. Varrone (De Re Rustica, II, 4, 9).

Very interesting recent studies have been made of an Etruscan settlement found at Forcello (Bagnolo S. Vito, near Mantua) by Olivieri del Castillo (1990) and regarding an Etruscan city from the 5th century B.C.. Of all the bones unearthed, 60% came from pigs, followed by sheep, goats and cattle. Pigs were slaughtered at two or three years of age, which means that the Etruscans of the Po Valley bred swine on a permanent basis, specifically for meat. Studies show that they raised small-sized pigs (wither height 65-75 centimetres at the time of slaughter). Both males and females were raised, in a ratio of 1:1.5. These pigs were similar to the ones raised in another Etruscan city in the Po Valley, Spina, and comparable to the pre-Roman swine breeds, with a height and strength that was much smaller than more ancient breeds.

This was basically the situation in the Po Valley at the onset of Roman domination, when Polybius mentioned the magnitude of the oak forests and the abundance of pigs. Further confirmation comes from Strabone, who said that the Emilia region supplied the entire country of Italy with pork and live pigs: "So many acorns are gathered in the oak forests of the Po Valley that most pigs slaughtered in Italy, used for domestic consumption and for feeding the Roman legions, come from that area" (Polybius, 2nd century B.C.).

From the writings of Columella, we know that there were "rational" permanent pig breeding farms during the Roman era. Sows and their piglets were raised in individual pens, in front of which Columella recommended installing a raised step to prevent the sow from escaping. Proof that this measure was "real" has been found in the archaeological digs at the Settefinestre farm recently excavated in Tuscany and described by Carancini and Settis (1979). It must therefore be assumed that, at least in the most "modern" farms the Romans carried out a rational and intensive pig-breeding program, in which individual breeding animals were selected. Pigs were fed a controlled diet that was integrated with grazing, as indicated by the "step" that was installed to keep the sow in her pen or removed to allow her to exit.

During the great farming and demographic crisis of the 3rd and 4th centuries A.D., uncultivated areas and woodlands expanded considerably and consequently the wild and semi-wild raising of pigs was reintroduced, taking priority over the raising of grazing animals (sheep, and cattle). An additional push in this direction came from the subsequent invasions by peoples from Eastern and Northern Europe. The Longobard invasion (569) was especially decisive, bringing with it the gradual introduction of economic and dietary customs that differed from those of the Romans.

The typical habits of a semi-nomadic civilisation, which mainly took advantage of what nature offered spontaneously, spread through the Po Valley. It therefore used the forest and its various fruit and "sub-products", of which the pig was one of the most important (Baruzzi and Montanari, 1981).

With the invasion of Italy by the Longobards, from the Veneto to the Po Valley, a political and economic "divide" in habits and customs developed. In the eastern and coastal areas, which the Byzantines succeeded in preserving from the Longobard invasions, "Mediterranean" habits remained connected to pastoral farming and more specifically "Roman" (Romania, which became Romagna), where the use of sheep meat and of "mutton" in particular persisted (Caroselli, 1970).

In other parts of the Po Valley that were invaded by the Longobards (Longobardia which became Lombardy), pig breeding was further increased and was also extended to woods, especially oak forests.

The Parma and Modena area and the entire Veneto region were also part of the vast area of the Longobard pig breeding culture.

During the Middle Ages, pig breeding was so important among forestry and pastoral activities that forests were "measured" not in terms of area, but according to the pig population. For example, it was said "the Alfiano Forest can fatten 700 pigs", and this single estimate provided data that was considered very useful (Baruzzi and Montanari, 1981). According to Longobard laws, herds of at least thirty pigs were "headed" by a boar, called the *sonorpair*, or by a sow called the *ducaria* (Baruzzi and Montanari, 1981; Grand-Delatouche, 1968). Pig herds were tended by a swineherd, who was often "bound" to the land (serf), and also took care of the pigs during "difficult" periods.

Temporary shelters, called *porcaritie* in mediaeval documents, were set up in the forests when the weather worsened. During the winter the pigs were brought back home for brief periods of temporary stabling, during which time previously fattened animals were slaughtered. A prime indication of the importance of the chief swineherd (*magister porcarius*) is given by the Rotari Edict of 653, which stated that if the chief swineherd was killed or injured, the highest possible sum would be paid to the owner in compensation, equal only to the amount paid for a master craftsman.

The mediaeval pigs recently studied by Oger (1982) in France were similar in many aspects to the wild pigs with which they continue to be crossbred.

According to the abundant iconography recently collected and discussed by Baruzzi and Montanari (1981), mediaeval pigs in the Po Valley were lean and thin, with long, slender legs and dark red or blackish in colour. There were also animals with a lighter skin or animals with "bands", for example the "cinta senese" (Siena Belted) breed. They had a large, long head, a pointed snout ideal for rooting and short, erect ears. They had thick, strong bristles, which were upright on their backs. The canine teeth were easily visible.

Finally, it should not be forgotten that the mediaeval pig also had a "city" life, which took place in the courtyards of the houses, in the streets and squares. This custom of "recycling" urban waste gave rise to problems of hygiene and "public order" (Baruzzi and Montanari, 1981). In 1288 the Statutes of Bologna state (Fasoli and Sella, 1939): "We hereby prohibit the keeping of sows with piglets in the city of Bologna, as well as the keeping of sows without piglets within one mile of the city. It is also prohibited to let go sows and pigs around the cities and villages, unless these are castrated and have a ring through the muzzle; from the first of May to the Feast of Saint Michael (29 September) even pigs with rings are not allowed in the city. We prohibit all pigs or sows from entering the Piazza del Comune or the Piazza di Porta Ravegnana. Excepted from this prohibition are herds of pigs brought by merchants, or other persons, for the purpose of being sold; however, the animals must be tied".

The specification for the public swineherd of the Municipality of San Daniele (1574) "assigns to Zuan Rondela of Ragogna the task of grazing pigs (excluding suckling pigs) of all those who own them and establishes the fee for the swineherd's upkeep – one day per pig – at a total of 24 lire per month". Only citizens of San Daniele were permitted to graze pigs on public land and to slaughter them in the municipal abattoir; 20 years of residence was necessary to acquire rights on public goods, and derogations from this rule were exceptional (Rebellano and Santese, 1993).

The transition from forest to pigsty occurred once farming returned and demographic development was ensured. This began in the 10th and 11th centuries and continued in varying degrees in connection with the expansion of farmland and the prohibition of the collective use of forests and woods, which were acquired by the ruling classes for "*Res Regalis*" wild game. Piero De Crescenzi, a Bolognese agronomist from the 13th century, wrote: "They must be fed acorns, chestnuts and similar items or broad beans, barley or wheat, because these products not only fatten them but give the meat a delicious flavour".
When share-cropping was introduced (Roda, 1979-80), pig breeding began to decline, but, more importantly, it changed.

The farmer continued to keep a few pigs on the farm to which he dedicated all of his time because he no longer worked in the forests (Montanari, 1979 - Baruzzi and Montanari, 1981).

Nevertheless, according to a report on the Parma region written at the end of the eighteenth century by Du Tillot and recently brought to light and discussed by Dall'Olio (1983), at that time pig production was still closely tied to grazing and acorns, and consequently there were good years and bad years according to the amount of acorns produced. Pork consumption in Parma was still relatively high at the end of the 18th century (around 4,500 pigs were slaughtered each year, predominantly for consumption in monasteries and convents) and the

setting up of two slaughter-houses for pigs similar to the Bologna slaughter-house was recommended.

Throughout the Middle Ages and up to the early twentieth century, as Mondini recently noted (1978), the designation most commonly used was "Porco" [*pork*], regardless of whether the animals were wild, semi-domesticated or domesticated. The derivation *sus* (Longobard *sonopair, scroa* for sow) was used for live animals, and gave rise to the term "suino" [*swine*], now in widespread use, along with "maiale" [*pig*]. *Porci silvestres* (Salimbene di Adam) was the term used for boar.

Notes on pork consumption in the Po Valley

The pig, whether wild (boar), semi-wild or domesticated, was almost exclusively a "meat" animal and has always been used for food in Europe and in the Po Valley, where there were no "prohibitions" or "taboos" as in other cultural areas, such as the Egyptian for certain periods of history, Jewish and Muslim (Ballarini, 1981).

Precise information on pork consumption can be obtained through the study of prehistoric bone samples dug up in front of caves or early human settlements (terramare). Etruscans, Gauls (documentation from Athenaeum exists on the latter) and especially the Romans from the Po Valley used pork extensively. According to Susini (1960), few Roman communities like the one in Bologna have left such a considerable number of references to craftsmen and professionals, among these that of "suarius".

Since Bologna was at the crossroads between the Emilia Way and the roads leading to the Apennines and the Po Delta, a large merchant and craftsman class had already formed during the flourishing Bolognese Etruscan period.

The same thing occurred in other towns along the Emilia Way – Parma, for example, where the road intersected with the Parma River and the Apennine road that led to the Tyrrhenian Sea. The latter would grow with the development of Luni Port, from where food produced in the Parma area could easily reach Rome by sea.

The references to craftsmen in the Po Valley (in this case Felsina-Bononia-Bologna) also derive from funeral stones. A very important stone is that of *Q. Valerius Restitutus* from the first half of the first century A.D., which represents a butcher's shop (*lanius).*

Another tomb that refers to pork commerce and processing comprises two stones, one of which shows the figure of a *suarius* (pig breeder or merchant) herding seven piglets. The other stone presents a mortar and pestle, the instruments used to adjust the meat, salt and spices to give the mixture necessary for the preparation of stuffed pork products, well known and valued in Roman times (Susini, 1958). It should also be noted that the modern name of mortadella seems to derive from that of "*mortarium*".

The animals slaughtered were of limited weight (from 30-40 kilograms up to a maximum of 70-80 kilograms) (Silcher Van Bath, 1972; Pesez, 1973; Stouff, 1969, Anselmi, 1975; Rouche, 1973; Montanari, 1979). Often the males were castrated in order to remove the unpleasant "urinous" odour and taste of the boar.

Animals that were less than a year were rarely slaughtered. The bones unearthed in archaeological digs show that the slaughtered animals were generally between one and two years old, and some were three or even four (Marcuzzi and Vannozzi, 1981; Barker, 1973; Tozzi, 1980). The extended rearing period was due to the genetic traits of the breeds farmed. They were mostly wild and grew slowly, and their diet was certainly inadequate and lacking nutrients.

The slaughtering period was generally in November and December, and always in the winter (Marcuzzi and Vannozzi, 1981). According to the extensive iconography available, the slaughter technique consisted of stunning the animal with a blow to the head, cutting its jugular vein or stabbing it in the heart. The blood was collected, then the bristles were removed with fire and boiling water. The animal was then divided into halves and then into sections. The "cuts" were either eaten immediately or preserved.

HAMS FROM THE PO VALLEY

Historical notes on hams from the Po Valley

A fundamental way to preserve meat was salting. Its origins go back to the dawn of mankind; it was certainly "discovered" several times over and in different parts of the world. Salting was used for several types of meat, but especially for meat produced seasonally, pork and fish in particular. "Nothing is more useful than salt and sun", wrote Pliny the Elder in the 1st century B.C. and Isidoro Di Siviglia repeated these same words in the 7th century.

The first important, although "indirect" evidence of salted pork legs (prosciutto or proto-prosciutto) in the Po Valley comes from the previously mentioned archaeological studies by Olivieri del Castillo (1990) at Forcello (Bagnolo S. Vito near Mantua), concerning an Etruscan settlement from the 5th century B.C. Among the many pig bones found (nearly 30,000 were unearthed!), there were surprisingly few from the haunches. This fact cannot be accidental and leads us to believe that pork haunches were used elsewhere, exported after being salted and then transformed into prosciutto or "proto- prosciutto". They may even have been exported to Greece, where they were quite famous. Indications that the Ancient Greeks were familiar with prosciutto are also given by their use of words such as *kolia* and *perna* (Aristophanes, Plutus, Luciano: Lessifane XXXIV, 6).

The Romans were well acquainted with ham, which they called "perna" (Varrone, De Lingua Latina). This word is also found on a tavern sign (Tacca, 1990). Q. Orazio Flaccio (Satira II, verses 116-117) wrote about prosciutto and the use of the ham bone for medicinal purposes (Marcello Empirico – *De medicamentibus fisycis razionalibus*).

In his *De Re Rustica*, Columella (1st century A.D.) says, "all animals, especially the pig, must not drink anything on the day before slaughter so that the meat will be drier..... When you have slaughtered the pig....carefully de-bone it; this will make the salted meat less prone to decompose and it will last longer....Use toasted salt....and in particular fill all parts in which the bones have been left, with lots of salt. After placing the slabs or pieces on planks, place heavy weights on top to help the liquids to drain. On the third day remove the weights and diligently rub the salted meat with your hands. When you have finished, sprinkle it with finely ground salt and stow it away; don't forget to rub it with salt every day until it has matured.

If the weather is good while you are rubbing the meat, leave it under salt for nine days. But if the weather is cloudy, the salted meat must be brought to the vat after eleven or twelve days. At this point shake off the salt and rinse thoroughly with fresh water so that no salt remains on any part of the meat. After letting it dry for a while, hang it in the meat larder where, if it still contains some water, it can be smoked for a while until it dries completely. This type of salting can be done well during the winter solstice, but also during the month of February, as long as it is before the Ides." Evidently, some of this advice is still valid: pay attention to the parts nearest to the bone, use very dry salt, squeeze the meat to extract the liquid, slaughter the pig during the winter (from 21 December to the first half of February), and so on.

However, this refers to salted meats that have been de-boned, partially dried by heat from the fire and not smoked, not to the "prosciutto crudo" or "dry-cured ham" as we know it today, even though it is prepared with a similar technique to the latter.

To find information on the preservation of whole pork haunches through "prosciugamento" [*drying*] (coming from the term "*perxuctus*" or "prosciugatissimo" [*very dry*]), we must go back to the days of Cato the Censor who in his *De Agricoltura* (2nd century B.C.) wrote that the haunches had to be placed in layers inside a dolium [*earthenware jar*]. Each layer had to be covered with plenty of salt and the layers must never be allowed to touch. After twelve days, the salt had to be removed from the pieces of meat, which were washed thoroughly, set out to dry in dry air for two days, then covered with oil and vinegar and hung on a stick near the fireplace.

"They won't be touched by worms or maggots," wrote Cato, due to the combined salting-smoking treatment.

Again, in this case the meat was not smoked, but only dried by the warm air.

During the Middle Ages, which provide further, more precise information, it was customary to cut the pig in half longitudinally, creating two "*mezene*" [*halves*] – whence the still common term "mezzena", which weighed relatively little (Messedaglia, 1943-44) and were preserved under salt. In France these halves, called baccones, giving us the English word *bacon*, provided to the monks of Corbie in the 9th century, weighed around thirty kilograms (Rouche, 1973).

When the pig was not preserved whole, its prime cuts – the haunch or ham and "gambuccio", "scamarita" (part of the back near the haunch; Sella, 1937) and shoulder – were salted. Less valuable parts were not salted, because of the high price of salt.

The important role of salt in the preservation of meat and other foods such as fish and cheese, and as an essential element in a primarily vegetarian human diet, due to its high potassium content, always resulted in intense trading of this staple. As recent authors have also described and discussed in great detail (Meyer, 1981), salt from the coastal saline zones (Venice, Comacchio, Cervia) was transported to the Eastern Po Valley primarily by means of the waterways, along the Po River and its tributaries. Due to the costs, not so much for transportation but for the duties levied, because it was considered an "indispensable" staple, people tried to produce it themselves, using rock-salt mines and particularly the saline sources inland.

The Po Valley, which was gradually formed by sedimentation, contains great amounts of fossil sea salt, deep within its layers of impermeable clay. For this reason, numerous salt-water ponds and springs can be found on the lower plain, in the hills and in the mountains (Marenghi, 1963).

Evidently a certain type of technology was needed to process meat and preserve it with salt. From the start of the 9th century, Charlemagne's capitulary on the management of Royal Enterprises prescribed that "*Omino praevidendum est cum omni diligentia it quicquid manibus laboraverint aut facerint, id est lardum, siccamen, sulcia, niusaltus... omnia cum summo nitore sint facta vel parata*".

The pig produced provisions that had to last an entire year. Besides the entrails, blood and some parts to be used immediately, there were others that were preserved at length: the aforementioned salty preparations. The "mid-term" bits consisted of sausages, which were preserved by means of fermentation processes controlled by a number of different factors and conditions: some of these (salt, humidity, temperature) were very effective, others less so.

The latter included spices, which partly had the function of "masking" any unpleasant odours or flavours, as well as serving as "control" and "repression" elements for using the sausage in cooking. This was the case with the piquant spices, which encouraged people to eat "a lot" of bread with "a little" something.

Typical Po Valley stuffed pork products included salami, cotechino [*kind of large spiced pork sausage for boiling*], stuffed pig's trotter, cappello da prete [*braised shoulder of beef*] and bondiola [*cured neck of pork*] and so on. There are many iconographic references to the Po Valley custom of preserving pork in the form of cold cuts. Spices whose use is documented in the past centuries and since the Middle Ages (Baruzzi and Montanari, 1981), include pepper and other Eastern spices (cinnamon, cloves, nutmeg, ginger, cumin, saffron), or the aromatic herbs produced in family gardens: thyme, marjoram, sage, aniseed, rosemary, parsley, coriander, and especially garlic (Baruzzi and Montanari, 1981).

The pig was also a precious source of fat. A "geographical map of culinary fats" actually exists: in Northern Italy (Central Europe) animal fats dominate, while in Central and Southern Italy (Mediterranean) vegetable fats, particularly olive oil, are the undisputed king. From the Middle Ages, pork fats (lard and suet) were predominantly used in Northern Italy, and butter to a limited extent. However, oil was not unknown, with olive oil being the domain of the rich and nut oil that of the poor. From the Longobard period lard was preserved by means of salting; the Longobard stonemasons received a fixed ration of lard of around five kilograms to sustain them, before starting their seasonal work (Baruzzi e Montanari, 1981). From the 8th century lard was known in the Po Valley as *uncto, grassa, sunzia, assungia* (Tanara, 1965; Rosselli, 1518).

There was clearly an ancient pig-rearing "vocation" or tradition in the Po Valley that intensified with the Longobard domination. A number of meat preservation techniques, such as salting, for example, developed in this vast "area" since very ancient times. However, at the same time there was an almost endless series of "variations", making it impossible to determine a separate origin and historical motivation for each. One of these, for example, is

typical of the Bologna area and dates back to the Roman era at least. Meats and fats were finely chopped to obtain a mixture to which salt and spices were added to preserve it. The mixture could then be cooked (mortadella), or eaten raw (sausages and salami) or after cooking (cotechino and stuffed pig's trotter).

Further west, in an area where iodised salt with bromide and small amounts of saltpeter rose to the surface (Marenghi, 1963), a preservation technology was developed in which a large number of medium-sized pig legs were salted and "dried" in an dry environment, as indicated by Cato the Censor.

Po Valley hams in the 2nd millennium

With the advent of the agrarian revolution at the beginning of this millennium, the Po Valley was deforested and water was controlled; cultivated areas increased while uncultivated areas declined. Consequently, pig grazing became increasingly less important, but a new opportunity arose: whey, a by-product of cheese production, especially in the Grana cheese areas (Parmigiano, Parmigiano-Reggiano, Grana Padano) and other cheeses in the Veneto region (Montasio). Although the agrarian revolution led to the reduction and disappearance of most of the animals living in the wild, it did not affect the pig, which found itself advantaged as evidenced by the works of Tanara (1965) and Landi (1969).

The evolution of the Po Valley pig's diet at the end of the 19th century was associated with a change in swine populations due to the introduction of English "white breeds", which were of a good size and especially suited to the production of fat. These characteristics had a positive influence on the size of the matured hams.

Despite the changes in the diet and populations of the reared pigs, certain indispensable characteristics for the production of dry-cured (matured) Po Valley ham remained the same:

- *"Slow" weight gain resulting in the slaughtering of "mature" pigs and not those with "young" meat;*
- *"Heavy" animals, with especially meaty legs and good subcutaneous fat coverage, including on the leg.*

Salting of pork, particularly the prime cuts such as the legs and therefore the ham, has always been and still is used in the Po Valley.

While the preservation technology was fundamentally the same, it could vary considerably depending on the area and a number of fundamental weather conditions, leading to a distinction between pig rearing and ham maturing processes.

PIG REARING

Pigs have always been reared predominantly in the plain and hills of the Po Valley. Initially this was because these areas were covered with oak forests, which provided the acorns mainly used to fatten the omnivorous pig. Subsequently, rearing and fattening were based on products deriving from dairy farms (whey) and other vegetables such as corn (maize).

Pig rearing has therefore always predominantly been in the plain or hills.

HAM CURING PROCESS

Meat salting is possible in any environment with the correct temperature and humidity characteristics. It is no coincidence that pigs were traditionally slaughtered and their meat processed between December and February. The ancient authors cited above recommended different salting periods depending on the weather conditions. The "curing" process, on the other hand, requires an environment that is not too humid (near the hearth, for example). This is why ham curing in the Po Valley developed in the hills that surrounded the plain: to the south in the Parma hills (which were also chosen because salt was available locally) and Modena hills, and to the north in the part of Po Valley of the San Daniele hills. The curing process is therefore an activity belonging to hillside areas and the areas immediately below, where the climate is not too humid especially during the summer months after the pigs have been slaughtered. In effect, curing needs to preserve hams for at least a year following slaughtering. There was a saying that "to make a Po Valley ham, the pig must pass two winters and the ham two summers": a "mature" pig and a "matured ham".

A direct line thus links Po Valley ham from its origins (probably in the 5th century B.C., and certainly in the 2nd century B.C.) to the present day. This is distinguished by the following characteristics:

- *pig breeding territories: low plain*
- *curing areas: foothills and hills*
- *type of pig: "mature" with sufficient subcutaneous fat*
- *treatment with a limited amount of salt ("sweet" hams) depending on the "maturity of the pig"*
- *absence of other "preservative" treatments, especially smoke*
- *the possibility of a long curing process (leading to a natural, intense flavour) due to the "maturity of the pig", a limited amount of salt and environmental characteristics of the curing process.*

Modern Po Valley hams – unique model and its "variations" in the Po Valley area

The very long history of Po Valley hams proves their common origins, strictly tied to the environmental and cultural unity of the Po Valley. Common aspects are the particular characteristics of pig breeding in the plains and curing in the foothills and hills, together with the distinct quality of the pig, which has maintained its "maturity" despite changes to population and diet, and the pig's relatively "heavy" weight together with a certain layer of subcutaneous fat. All of these are indispensable elements for a "prolonged curing process", and even more so because less salt is used to give the ham its naturally intense flavour.

However, the indubitable "uniqueness" of Po Valley ham has not prevented the emergence of "variations", some of which are well-defined and with a certain history (Prosciutto di Parma, Prosciutto di San Daniele, Prosciutto di Modena and Prosciutto Veneto).

This "variation" concerns a number of aspects, for example the shape of the ham, but especially the extent and quality of its "natural flavour" derived from endogenous ageing processes, determined by:

- quality (maturity) of the pigs
- curing environment
- production technology.

Prosciutto di San Daniele [*San Daniele ham*]

San Daniele ham comes under the Po Valley "model" of pig breeding and ham curing, the latter with a "variation" that comprised the entire haunch including the trotter.

In the late Middle Ages the public authority of San Daniele bore the cost of a custodian for care of pigs on market days, and this indicates the importance of the area for this type of farming, and particularly for marketing of the animals.

Records from the sixteenth century relating to the frequent decrees by the Municipal Council of the San Daniele Communal Assembly indicate the importance and special attention given to swine breeding. In fact a number of provisions governing conditions for the public swineherd were updated and renewed (Rebellato and Santese, 1993).

Recent research carried out at the Guarneriana Civic Library (national monument) documents that ham cured in the San Daniele area was the object of feudal "corvées", a seal of diplomatic and commercial agreements, a valued gift to the powerful and worthies – Venetian Doges in particular, and a vehicle of unanimous consent that was delivered by mule to the Council of Trent. Last but not least, because of the product's great importance, it was seized by General Massena in 1797 just before the Treaty of Campo Formio. The ham of the region was also invariably included in the cap on selling prices by the Community Chancellor for each of the two big annual fairs at San Daniele.

San Daniele's function as a pig market was connected not only to the extensive Litana forest, which reached from Lugo in Romagna to Venice, but also to other Veneto-Friulian forests, which were home to herds of pigs before the advent of deforestation (caused primarily by the Venetians for ship building).

Like Po Valley pigs, Veneto pigs were already domesticated in more recent times. This can be seen by the loss of their dense fur and their pink hides. Indeed, in 1772 Antonio Frizzi mentioned three varieties of pig in the poem La salameide: one with white bristles, a black pig and another the colour that you like – the colour of women's faces – i.e. pink.

Likewise in the Veneto and the San Daniele area, as recently noted by Alberini (1992), pig breeding was formerly domestic before becoming connected to the dairy industry for the use

of whey, as well as by-products from the milling industry, especially "corn" or maize and with bran.

Pork consumption in the Veneto and Friuli is well established and goes back to ancient times, as noted by Gerolamo Savonarola, *medicinae professori celeberrime* in his *Libreto di tute le cose che se manzano* (around 1450), which also mentions "*persuti*". Ham is also mentioned in a seventeenth century Venetian cookery book (Alberini, 1992). The 8th canto of the Secchia Rapita by Alessandro Tassoni mentions that one of the commanders of "those from Montagnana" "sold the rights for a ham".

The production of San Daniele ham followed the production of other types of ham in the Po Valley. Pigs were bred in the plains, and the curing process took place in the foothills and hills.

The following points are also established:

- *Pig breeding was an ancient tradition linked to the Celt-Longobard civilisations in the Po Valley;*

- *Since the Middle Ages, both public institutions and private individuals have been involved in pig breeding;*

- *Pigs were bred throughout the Friulian plains, and were fed on acorns from the oak forests (semi-wild raising). Afterwards whey was used as feed, indicating a close link between pig farming and cheese factories that produced a variety of Friulian cheeses. A further important factor is the development of maize as a crop (or "polenta");*

- *The salting of pork was an ancient tradition in the region, also because of the local salt works;*

- *San Daniele ham production strictly excluded the use of smoke and other preservatives, except for salt and controlled humidity and ambient temperature;*

- *Industrialisation of the San Daniele ham production process has passed through a craftsman phase which has maintained the product's traditional characteristics.*

CONCLUSIONS

On the basis of archaeological, historical and linguistic information, traditions and existing iconography, as well as scientific data on biology, pig breeding and food processing technologies, especially meat preservation through the process of salting, the following can be acknowledged.

On a social and cultural level, but especially on the basis of production technologies developed and preserved by tradition, the Po Valley constitutes a "unit" also with regard to pig breeding and especially the processing of certain prime cuts such as the leg that is used to make ham.

The Po Valley "unit" has originated a "unique" model for the domestication and breeding of pigs and the production of cured ham. Over the years this "model" has changed to create the "variations", which today correspond to Prosciutto di San Daniele, Prosciutto di Parma, Prosciutto di Modena and Prosciutto Veneto.

Although they have common roots, the above Po Valley hams have their own individuality, as they are "variations" of a unique "model".

In the Po Valley and in prehistoric times there has been a semi-domestication of the pig, especially in the Celtic and then the Longobard culture. The regions of Parma, Modena and the Venetian lands are included in the vast area of Longobard pig culture.

Despite the changes in the diet and populations of the reared pigs over millennia, certain indispensable characteristics remained absolutely constant for the production of dry-cured (matured) ham according to the "Po Valley model":

- "Slow" weight gain resulting in the slaughtering of "mature" pigs and not those with "young" meat;
- "Heavy" animals, with especially meaty legs and good subcutaneous fat coverage, including on the leg.

A direct line links Po Valley ham from its origins (probably the 5th century B.C., and certainly in the 2nd century B.C.) to the present day. This is distinguished by the following characteristics:

- pig breeding territories: low plain and hills
- curing areas: foothills and hills
- type of pig: "mature" with sufficient subcutaneous fat
- treatment with a limited amount of salt ("sweet" hams) depending on the "maturity of the pig"
- absence of other "preservative" treatments especially smoke
- the possibility of a long curing process (leading to a natural, intense flavour) due to the "maturity of the pig", a limited amount of salt and environmental characteristics of the curing process.

In respect of the different "variations" of the "Po Valley model" of cured ham, the following points are established:

San Daniele ham

- Pig breeding is an ancient Venetian and Friulian tradition linked to the Celt-Longobard civilisations in the Po Valley;
- Since the Middle Ages both public institutions and private individuals have been involved in pig breeding;
- Pigs were bred throughout the Friulian plains, and were fed on acorns from the oak forests (semi-wild raising). Afterwards whey was used as feed, indicating a close link between pig farming and dairies that produced a variety of cheeses. A further important factor is the development of maize as a crop (or "polenta");
- The salting of pork was an ancient tradition in the region, also because of the local saltworks;
- San Daniele ham production strictly excludes the use of smoke and other preservative treatments, except for salt and controlled humidity and ambient temperature;
- Concerning "variations", San Daniele ham has preserved the traditional technique of salting at will, without predetermined amounts, which represents a unique feature;
- San Daniele ham is original and unique, as shown by the substantially exclusive considerations of this specification;
- Industrialisation of the San Daniele ham production process has passed through a craftsman phase which has maintained the product's traditional characteristics.

We will now look in depth at the links with the geographical environment which more specifically relate to the area defined in map C.1, in relation to the area of production of San Daniele ham as identified by Article 1, Para. 1, Letter *b)* of Law of the Italian Republic No. 30 dated 14 February 1990 and by Section C of this specification**.**

This area, defined within the census district and administrative territory of the municipality of San Daniele del Friuli, has specific and unique environmental conditions which require an in-depth analysis, with integration of the points already considered on a general level by the above-mentioned attached treatise.

Geographically located in Central Friuli, the defined area covers 3,467 hectares and is situated along the course of the Tagliamento River, representing the first hilly spur in the piedmont morainic area in which the Po Valley plain finishes in Friuli.

The inhabited settlement is actually built on the sides and at the base of a morainic hill, 276 metres above sea level at the summit, and incorporates the left bank of the Tagliamento River.

Beyond the Tagliamento River, at less than 2,000 metres as the crow flies, the first mountain ranges of the Carnic Prealps rise up.

The orography of the area and its morainic origin result in a particular soil structure. Extensively and typically gravelly, the soil has a strong hygroscopic function and consequently allows constant moisture drainage.

This direct effect then interacts with the warm breezes which rise from the Adriatic Sea (35 kilometres away as the crow flies) along the bed of the Tagliamento River, gradually cooling and directly encountering the colder breezes descending from the Alps upstream of the Tagliamento River, directly connecting with the Canal del Ferro in the Tarvisio area, a few tens of kilometres away.

This produces a constant and original microclimate, actually limited to this geographical environment, which results in a continuous light ventilation of the area. Combined with the drainage function enabled by the geomorphological context, this ensures the low-humidity environment which is known to be ideal for curing ham. On the other hand, it also produces further distinctive characteristics by carrying microflora which originate from species typical of the area, thereby determining the product's typical aromatic characteristics.

The extent to which the environmental requirements considered have historically influenced the characterisation of the product and the consequent development of the designation is largely based on the lines of phenomenological evaluation considered in Section D.

On a practical level it is worth noting, however, that San Daniele ham production has developed only in San Daniele, established centuries ago (as has been demonstrated) and not in the San Daniele area, which can refer to a much larger territory and include a number of municipalities for administrative and socio-economic purposes.

In fact there is no significant trace, in either the past or present, of production activities established outside the municipal territory, not even in the remaining part of the morainic district which connects San Daniele to the city of Udine, still in the centre of Friuli.

The fact that in both the past and present (but especially in the past), the production activities have been concentrated solely and exclusively in San Daniele, confirms beyond any doubt that the environmental conditions of this restricted area are the foundation of this type of production and the rationale for the economic history and the product designation.

This awareness is widely found in both public opinion and in literature as well as in the legislation of the Italian Republic, the latter sealing the close link existing between designation and geographical environment.

Law of the Italian Republic No. 30 dated 14 February 1990, mentioned a number of times, sanctions authentic and specific standards for protection of the environment in question, recognising these as a sort of "essential instrument" for the purposes of the designation of origin of San Daniele ham.

We take the liberty of citing verbatim the text of this legislation and particularly the text of Article 24:

"1. To protect the typical conditions of the production environment on which the organoleptic characteristics of San Daniele ham depend, with effect from the entry into force of this law, the introduction of first-level noxious industries – identified in Article 216 of the consolidation act of sanitary laws approved by Royal Decree No. 2165 dated 27 July 1934 – and any other business that might jeopardise the environmental balance of the area must be approved beforehand by the regional committee for air pollution responsible for that territory.

2. In any case, the protection of the environmental conditions of the typical production area, with particular reference to air quality, is assigned to the competent regions as provided by Article 4, Para. 1, Letter c), of Presidential Decree No. 203 dated 24 May 1998."

The adoption of such strict protection measures (for "first-level noxious industries", the cited national law considers almost all manufacturing activities, even cattle yards) can only be justified by a shared, deep-rooted awareness of the objective needs to protect and safeguard the environment.

The "environmental" question also has another important precedent, which is instead based in case law.

During the eighties, against the background of a construction/urban planning system with very uncertain implementation principles, regular permission was granted to build and operate a workshop with an oven for "hot" painting of industrial vehicles. The plant was built very close to the homogeneous zone in which a significant number of ham curing factories were concentrated at that time.

An appeal was lodged against the building permission with the Regional Administrative Court of Trieste, requesting suspension of the decision, in the face of the enormous risk of damage resulting from the inevitable environmental pollution produced by the fumes from the painting oven, even if scrubbed in accordance with the law. The applicants were obviously the proprietors of the ham-curing factories, worried by having to work "with the windows open".

The suspension request had originally been rejected by the Regional Administrative Court (the risk had not been considered assessable, as it was deemed solely "theoretical"), and a further official appeal was then lodged with the Council of State which, through a specific order, accepted the applicants' arguments and ordered annulment of the decision to grant permission (and of the previous judgement by the Regional Administrative Court).

Even if anecdotal – although amply verifiable at any time – this case reinforces the legal framework and in fact attaches an essential and determining importance to the typical characteristics of the environmental conditions of the production area of San Daniele ham.

On the other hand, the "link" existing between the production area of the raw material and the environmental conditions that characterise it, is considered in the light of the demonstrated connection between environmental, historical, cultural, social and economic factors, already widely considered in the preceding sections.

This profound awareness has resulted in the current national laws, which constitute an integral part of this specification in form and substance, where there is a clear definition of the area that produces the raw material that supplies factories involved in the production and processing of San Daniele ham.

There is an additional element – last, but certainly not least – that proves the link between raw material and geographical area according to a series of specific and occupational requirements.

While it is true that zootechnic productive characterisations strictly depend on PDO product requirements to the point that they assume special, exclusive and distinct qualities with regard to the geographical area, it must likewise be true that recognition of this distinction – which defines the link discussed in this specification – confirms this assumption.

The distinctive characteristic that links the territory, farming and the processing of the PDO product “Prosciutto di San Daniele” can indubitably be summed up in the word “heavy pig”, which is frequently mentioned in the same national law protecting the product and, in form and substance, is always referred to in this specification.

It is therefore absolutely pertinent to underline that this particular specialisation of pig farming in defined areas, together with the definition of heavy pig, has been formally recognised by the European Community through legislation on the commercial classification of pig carcasses.

EEC Regulation No. 3220 dated 13 November 1984 is the latest update that has been introduced by the Commission on this subject.

Coming into force on 1 January 1989, this regulation introduced objective measuring methods for evaluating the percentage of lean meat on the carcasses, dividing them into five commercial classes with the letters of the acronym EUROP. Each country is also allowed to introduce a special class called “S”.

In relation to the application of this regulation, Italy was the only country where two pig populations were recognised:

a) one is the "light pig", slaughtered at weights that conform to European averages

b) the other is the "heavy pig", slaughtered at a weight of 150-160 kilos and whose meat is used for processing.

Consequently, a Decision by the Commission on 21 December 1989 authorised the distinction between “light” carcasses (dead weight <120 kilograms) and “heavy” carcasses (dead weight >120 kilograms), with subsequent application of two clearly different formulas used for commercial evaluation.

With regard to national implementation, it is known that the competent ministry has drawn up a plan to implement Article 3, Paragraph 4, of the above-mentioned EEC Regulation No. 3222/84, to determine evaluation criteria for meat quantity that can be associated with those for the quality of lean meat.

If the division of the Italian pig population, regulated at EU level, is seen as an acknowledgement of the existence of different requirements which are exactly identical to the requisites in this specification, the type of pig found within the defined area and linked to the area through precise historic, economic and social motivations obviously belongs to the "heavy pig" category.

Therefore, recognition of the presence of two so profoundly different populations within the same country constitutes a formal anticipation of the acknowledgement of the link that connects both to their respective geographical and economic contexts.

REFERENCE DOCUMENTS FOR SECTION F

- Full text of EEC Regulation No. 3220/84
- Full text of EEC Commission Decision of 21 December 1988 ff.
- P.L.Rebellato, E. Santese: "San Daniele, dal persutto al prosciutto" – Biblioteca Cominiana 1993

SECTION G

INSPECTION STRUCTURE

INSPECTION STRUCTURE PROVIDED FOR BY ARTICLE 10 OF EEC REGULATION NO. 2081/92

Each stage of the production process is monitored, with all incoming and outgoing products recorded for each stage. This, along with special registers managed by the inspection body that record the pig breeding farmers, slaughterers, cutters, producers, maturers, portioners/slicers, and the timely declaration of the quantities produced to the inspection body, in compliance with the requirements laid down in the previous sections and in the inspection plan, ensures product traceability. All natural or legal persons recorded in the relevant registers are subject to inspection by the inspection body, in accordance with the production specification, the approved inspection plan and the relevant application measures.

SECTION H

SPECIFIC LABELLING REQUIREMENTS IN RELATION TO THE PDO WORDING AND EQUIVALENT NATIONAL WORDINGS

Italian laws, international instruments and agreements relating to the legal protection of the PDO "prosciutto di San Daniele" stipulate the incorporation into this specification of elements other than those of simple labelling. They identify and form a constituent part of the individual product that bears the PDO.

The original legislation and national regulations provided special rules for the identification of San Daniele ham throughout the production circuit (raw material) up to final preparation and commercial presentation.

Current legislation for PDO registration provides for the use of stamps, seals and brands to identify protected production throughout the various processing stages, in order to identify and certify all "phases" of the product: from raw material to cured ham and beyond.

The following sequence is required in the production circuit:

- Stamp(s) affixed by the breeding farmer (for the second stamp the substitute systems considered in Section C are allowed);
- Stamp affixed by the slaughterer;
- Seal affixed by the producer;
- Certification brand affixed under the responsibility and in the presence of the Certified Body.

Above all, the brand shall contain the words "Prosciutto di San Daniele". The first specimen of this brand dates back to 1961 and has since been modified by new provisions, the last of which – published in Official Gazette of the Italian Republic No. 211 on 9 September 1994 – was the Decree dated 25 August 1994. The certification brand is a firebrand which is affixed at the end of the curing period on hams which, after all necessary inspections have been carried out, meet all product and quality requirements provided for by the specification. The certification brand therefore provides identification and qualification of San Daniele ham, in that it performs a dual function of identifying the product from other dry-cured hams, assuring its authenticity, and guaranteeing that it has passed through all required production phases, and that all of these phases have been validated by persons or bodies to whom the specification assigns specific tasks. The certification brand is accompanied by the producer's identification code, assigned by the Consorzio del Prosciutto di San Daniele at the time of acknowledgment by the Certified body.

Only the presence of the certification brand accompanied by the producer's identification code and seal gives the product its legitimate qualification as San Daniele ham, regardless of in which form the product is presented (bone-in, de-boned, in portions – firebrand – or sliced and pre-packed – stamp).

The consortium has custody of the dies used for fabricating and reproducing the tools for affixing the certification brand. These tools, owned by the consortium for the protection of San Daniele ham, are then given to the Certification Body for use by its inspectors when affixing certification brands on the hams. During such operations the inspectors of the Certification Body are fully responsible for the custody, management and use of the tools and will be subject to disciplinary measures, including judicial, in cases of negligence, omission or improper use.

To sum up, the most important element that distinguishes San Daniele ham – in fact, the only formal discriminating factor – when presenting the product for sale is the certification brand. The presence of this brand is the only way of being able to legitimately and legally use the PDO. Without the brand a product cannot be designated for use of the PDO on its label or packaging, on any sales documentation nor when selling (whole, sliced, pre-packed or retail batch selling).

Moreover, the added value that the certification brand represents has been confirmed by the fact that there have been frequent cases in which fake brands have been affixed to ordinary hams, in violation of the criminal provisions provided for by both special and general regulations.

The graphic reproduction of the certification brand is also not freely available to anyone, even when dealing with authentic products. This graphic, however it is used, is reserved for the Consorzio del Prosciutto di San Daniele, which can, from time to time and for individual and specific initiatives, authorise the reproduction of the brand's symbol to third parties, imposing conditions and limitations as it sees fit and overseeing the operations.

Any unauthorised reproduction of the brand's symbol is liable to penal or civil prosecution.

It has already been mentioned that the affixing of the certification brand is the last item, in chronological order, in a series of elements that identify and qualify the protected product; indeed, this brand can only be affixed on hams that have the seal affixed at the beginning of processing. This seal, another firebrand, whose symbol was approved by Decree dated 5 August 1994 (published in the Official Gazette of the Italian Republic No. 211 on 9 September 1994), shows the day, month and year when processing started, and is applied by the producer on fresh legs that arrive at the processing plant and are intended for protected production. This seal is an essential element when calculating the minimum curing period and, in addition, is considered as the production date according to current national laws regarding the sanitary supervision of meat.

The seal is only affixed to the fresh legs that arrive from approved slaughterhouses that have been branded with the number assigned to each slaughterhouse for identification purposes, and are accompanied by all required sanitary and product documentation, as well as meeting all substantial and qualitative characteristics provided for by this specification. The seal itself cannot be affixed to fresh legs that do not comply with the above-mentioned requirements; any improper application constitutes non-conformity and is punished.

The indelible stamp that is affixed using heat by the slaughterhouse comprises a standard base, bearing "PP" plus an alphanumeric code (one letter and two digits) identifying the authorised slaughterhouse. The slaughterhouse affixes its stamp on the fresh legs of pigs arriving from accredited breeding farms and accompanied by the relevant certificates of origin and conformity, attesting compliance with the production provisions applicable to the breeding stages, as well as meeting the quality requirements that are applicable to fresh legs to be used for protected production. The numbered identification stamp of the slaughterhouse also has an important role to play with regard to the proof of origin of the pigs and the provenance of the raw material, as well as the associated control implications.

The rules governing the labelling of San Daniele ham – whether whole bone-in, whole packaged, portioned or sliced – obviously do not exclude the general provisions laid down, in particular by Legislative Decree No. 109 dated 27 June 1992, which in turn implements EEC Directives 89/395 and 89/396 concerning the labelling, presentation and advertising of food products. These rules have been implemented in the production specification registered with EC Regulation No. 1107 dated 12 June 1996.

For the purposes of this specification:

The labelling of whole San Daniele ham with bone shall bear the following mandatory indications:

- "prosciutto di San Daniele" (*San Daniele Ham*), followed by "Protected Designation of Origin";
- the address of the production plant in San Daniele del Friuli.

The labelling of de-boned whole San Daniele ham, or San Daniele ham presented in portions and sliced, shall bear the following mandatory indications:

- "prosciutto di San Daniele" (*San Daniele Ham*), followed by "Protected Designation of Origin";
- the address of the packing plant;
- the production date (start of processing), if the seal is no longer visible.

For sliced San Daniele ham, the special presentation regulations contained in the directive implementing the provision of Article 5, Paragraph 2, of Law of the Italian Republic No. 30 dated 14 February 1990 shall apply. The requirements of veterinary authorities of third countries, which require the wording "Confezionato sotto la sorveglianza dell'Istituto Nord Est Qualità" (*packaged under the supervision of the Istituto Nord Est Qualità*) on packs of sliced San Daniele ham, shall also apply.

For the purposes of this specification, the following rules governing the labelling of San Daniele ham shall also apply:

It is forbidden to use qualifying adjectives such as "classic", "genuine", "premium", "super" or any other qualification, designation or attribute in addition to the designation of origin, except for "de-boned" and "sliced", or any other indication not specified here, subject to the necessity to comply with other legal requirements.

The same prohibitions also apply to advertising and promotion of San Daniele ham, in any form or context.

Indication of the lot identification, where required for labelling purposes, is not necessary if the date of minimum durability is stated in the format day, month and year.

The certification brand can be reproduced on the labelling of San Daniele ham, provided that the relevant graphic and presentation context has been approved beforehand upon a formal application by the parties concerned.

Use of the certification brand is reserved for the acknowledged consortium for the protection of San Daniele ham, which can use it as its own distinctive sign and authorise its use for initiatives aimed at the promotion of San Daniele ham.

REFERENCE DOCUMENTS FOR SECTION H

- Full text of regulations by the Italian Authority for approval of the certification brand and other stamps and seals in force in the national legal framework for protection
- List of countries where registration of an international mark has been formalised and/or which recognise the designation of origin, in accordance with bilateral agreements with the Italian Republic.
- Directives No. 14(10)92 dated 16 May 1992 and No. 17/93 dated 19 February 1993 concerning provisions relating to sliced and packed San Daniele ham

SECTION I

MANDATORY CONDITIONS ARISING FROM NATIONAL PROVISIONS

The need to ensure continuity of the national legal system of protection, organically in force for the product and its designation since 1970, makes it necessary to conclude this specification with an indication of essential conditions for the effective integration of all coordinated measures for the protection of the designation "prosciutto di San Daniele".

For the purposes of protecting the designation of origin of San Daniele ham:

- Use of the designation "San Daniele" or "San Daniele del Friuli" and any other indication containing the above place name, within individual company names and trademarks, is forbidden, except for company names and trademarks whose use is proved to be dated before 20 February 1990;

- The sale of hams whose labelling refers to companies and their locations in San Daniele del Friuli, which are not owners of ham curing factories located in the area defined in the preceding point C.1, is forbidden;

These regulations are laid down by Article 7 of Law of the Italian Republic No. 30 dated 14 February 1990, as supplemented by Article 1, Paragraph 1, Letter g) of Decree No. 298 dated 16 February 1993;

- The prohibitions and requirements indicated in Article 6 of the same Law No. 30 dated 14 February 1990 are confirmed. These especially forbid the sale or marketing of non-protected product, which bears on the product itself or on the packs, packaging, wrappers, labels etc., as well as on documents referring to the product itself, indications that could cause confusion with San Daniele ham or claim its typical qualities; it is forbidden to use the designation referring to the name San Daniele, to use graphic signs, seals etc. which through their location, colour, size and style of lettering could mislead purchasers and consumers by referring to the protected product and its qualities;

- The sanctions provided by Chapter IV of Law of the Italian Republic No. 30 dated 14 February 1990 and the relevant modes of application as specified by Articles 37 and 38 of Decree No. 298 dated 16 February 1993 shall apply, to the extent applicable in the territory of the Italian Republic.

The Certified Body shall provide:

- the pig breeding farmers with support for the certificates for which they are responsible;
- the slaughterers with the indelible stamp;
- the producers with special registers for monitoring the various operations.

The Ministry of Agriculture, Food and Forestry Policies shall approve any rescheduling plans for the inspection of the PDO production proposed by the Certified Body, which shall ensure their implementation with all accredited producers pursuant to Article 11, Paragraph 1, of Law of the Italian Republic No. 30 dated 14 February 1990 and Article 15 of Legislative Decree No. 102/2005.

The costs of the inspections provided for in this specification shall be borne by the economic entities involved, in the manner prescribed by Article 11, Paragraphs 3, 4 and 5 of Law of the Italian Republic No. 30 dated 14 February 1990 and Article 10 of Decree No. 298 dated 16 February 1993 and by Article 11 of EC Regulation No. 510/2006.

The rules laid down by Article 24 of Law of the Italian Republic No. 30 dated 14 February 1990, relating to protection of the typical conditions of the production environment, shall apply, to the extent applicable.

In addition, the rules laid down by Article 25 of Law of the Italian Republic No. 30 dated 14 February 1990 and Article 17 of the Decree dated 16 February 1993 shall apply in relation to the special production conditions for limited San Daniele ham export objectives.

The technical and application criteria for the analytical parameters provided for in this specification are defined by technical directive of the Certified Body, notified to the national inspection authority, and by the approved inspection plans.

Bilateral agreements already reached by the Italian Republic for protection of the designation of origin "prosciutto di San Daniele" shall apply, in so far as compatible.

The PDO "Prosciutto di San Daniele" is protected against any type of misuse in accordance with the relevant European Community and national laws. The consortium appointed by the Ministry of Agriculture, Food and Forestry Policies carries out protection, promotion, safeguarding and surveillance activities on the market, in accordance with Article 14 of Law 526/99.

Consortium regulation implementing directive No. 03/04 dated 9 November 2004, approved by the Ministry of Agriculture, Food and Forestry Policies on 25 October 2004, shall apply for the protection of San Daniele Ham (PDO).

The Consorzio del Prosciutto di San Daniele has been authorised, by provision of the national inspection authority then competent and by Ministerial Decree No. 2555 of 4 August 1984, in consultation with the Ministry of Finance, to issue the certification necessary to obtain higher refunds for the export of San Daniele ham to third countries. In addition, it shall issue any type of corresponding declarations for customs and export purposes requested by the competent authorities of third countries. The Certified Inspection Body shall also work to this end, if requested.

REFERENCE DOCUMENTS FOR SECTION I

- Ministerial Decree No. 2555 dated 4 August 1984
- Law No. 30 dated 14 February 1990 and Ministerial Decree No. 298 dated 16 February 1993
- Art. 14 of Law No. 526 dated 21 December 1999
- Full text of Directive DAR 03/04 dated 9 November 2004
- Legislative Decree No. 102 dated 27 May 2005

Directive 14/1992
General provisions for implementation of Article 5, Paragraph 2, of Law No. 30 dated 14 February 1990

PROVISIONS RELATING TO SLICED AND PACKAGED SAN DANIELE HAM

1. Any company which intends to perform operations of slicing and packaging San Daniele ham, must:

   a) file a memorandum containing a description of the equipment and technologies used for slicing and preparation of the packs, the relevant operational and functional procedures, the type of packs and the storage characteristics of the product;
   b) have at its disposal suitable premises, which are independent and are not involved in any other processing or preparation cycle;
   c) file a copy of the health approval issued by the competent authority in accordance with the applicable regulations, containing an explicit reference to the activities of slicing and packaging of dry-cured ham; this authorisation must in any case be filed prior to the commencement of the work and the relevant inspections;
   d) file an application with the consortium, for the purpose of obtaining authorisation to execute the work covered by this directive, as well as admission to a special register of qualified entities, kept by the consortium itself;
   e) file, together with the document specified in letter a), a suitable map indicating the layout and function of the premises where the operations to be authorised will be carried out, and where the packaging material and the prepared packs will be stored;
   f) file a certificate of registration with Udine Chamber of Commerce;
   g) undertake, simultaneously with the application mentioned in point d), to observe all legal requirements and the relevant implementation directives provided by the consortium in this regard, and to inform the consortium of any variation occurring after the authorisation in relation to the name, registered office and operating premises, packaging types and technologies, methods of presentation of the approved packs.

2. Once the consortium has received the documentation specified in point 1 and ascertained its compatibility, with respect to the general rules, to Law No. 30 dated 14 February 1990 and its own directives, it will authorise the company making the application by means of a suitable provision.

2.1 The authorisation can also be issued pending filing of the health authorisation specified in point 1, letter c), only becoming fully effective once the relevant certification has been issued by the consortium.

2.2 In any case, the authorisation has a preliminary and administrative value, as the slicing and packaging procedures are subject to the observance of all provisions contained in this directive and to the execution of statutory inspections.

2.3 The authorisation can be revoked by the consortium at any time and without any special formalities or procedures, in the event of contravention of Law No. 30 dated 14 February 1990, the relevant implementing regulation and the implementing directives.

3. Following issue of the authorisation, the company can file the drafts relating to the methods of presentation of packs of sliced San Daniele ham with the consortium.

3.1 The drafts must reproduce the overall graphic style definitively proposed by the company, as well as the legally required inscriptions and indications, in addition to those specified in this directive.

3.2 After ascertaining the conformity of the presented drafts, the consortium shall authorise their reproduction by means of an appropriate written provision; alternatively, it shall notify the company concerned, stating reasons, of any suspension measure or rejection of the proposal.

3.3 Simultaneously with filing the drafts presenting the packs, the company concerned shall notify the consortium of the name and registered office of the company in charge of the mass production.

3.4 The consortium shall accredit the producer of the packs by means of a suitable formal measure, authorising it to reproduce the certification brand on the packs, after the producer has signed the production specification regulating the methods, limits and obligations deriving from the authorisation.

3.5 In particular, the producer undertakes and is required to send to the consortium a copy of the tax documents accompanying the packs supplied to each packer. From the documents sent it must be possible to determine the quantity of packs that can be obtained from each individual batch supplied.

4. The certification brand that identifies San Daniele ham shall be printed directly on the packaging by the accredited producer in the manner specified in the preceding point 3.

4.1 The brand shall be supplemented by a special numerical identification code, affixed in the position specified by the Ministerial Decree dated 16 April 1987.

4.2 This code identifies the authorised packer; it can be identical to the identification number already assigned to the producer, if the packaging is undertaken by the same producer. Alternatively, the new identification number shall be assigned simultaneously with the authorisation.

4.3 The reproduction of the statutory certification brand must always be accompanied by the indication, in full, of the PDO "Prosciutto di San Daniele" [*San Daniele ham*] and the following wordings:

- "Protected designation of origin in accordance with Law No. 30 dated 14 February 1990";
- "Packaged under the supervision of the Consorzio del Prosciutto di San Daniele".
-

4.4 The certification brand, the numerical identification code and the wordings specified in point 4.3. must be reproduced:

a) in the same visual field and in the same portion of label, so that when read the wording appears coordinated and consistent;

b) with overall dimensions that take up a uniform portion of label no less than cm 8 by cm 4;

c) positioning the reproduction of the brand immediately after the indication "Prosciutto di San Daniele" [*San Daniele ham*].

4.5 The characters and script used for the indications specified in point 4.4. shall be selected by the company in coordination with the graphic style of the label. Equally, these indications, in compliance with the regulations specified in point 4.4., can be affixed in any uniform portion of the packaging.

4.6 The accredited producer shall exclusively use the graphic layout sent to it by the consortium for the reproduction of the brand.

4.7 The standards relating to the general labelling of sliced and packaged San Daniele ham, without prejudice to the present point 4, follow the general standards for labelling foodstuffs and the special rules established by Law No. 30 dated 14 February 1990 and the relevant implementing regulation.

5 The authorised company shall inform the consortium 30 (thirty) days in advance of the date of the commencement of the slicing and packaging operations and shall agree the production plans for the relevant packs with the consortium's supervisory services, in order to ensure and plan an orderly performance of the inspections.

5.1 Any requirements for testing the slicing and packaging equipment, entailing the experimental use of packs bearing the certification brand, shall be agreed and authorised by the supervisory service manager in each case.

5.2 In the circumstances specified in the preceding point 5.1, the company and supervisory service personnel shall ensure that the packs produced remain within the experimental area of the authorised company. The quantity of packs produced for experimental purposes shall be noted by the control personnel in the registers kept in accordance with the law, after verification of the relevant number for each of the days on which inspections have been planned. This note shall bear the reference "testing" and shall be based on the minutes drawn up by the supervisory service personnel.

6 All operations pertaining to the slicing and packaging of San Daniele ham, as described below, must occur in the constant and continuous presence of the supervisory service personnel, who are specifically authorised by the consortium in this regard, on the basis of the schedules mentioned in the preceding point 5.

6.1 As part of the standard procedures the authorised company shall present the hams, already provided with the certification brand, which it intends to process for packaging, to the inspection personnel.

6.2 First of all, the inspection personnel shall:

6.2.1 note from the documentation presented by the company the references necessary to identify the presented hams (by inspecting the legally required registers or referring to the relevant records indicated in the accompanying documents, if the packer is not also the producer);

6.2.2 verify the existence of the suitability requirements stipulated by Law No. 30 dated 14 February 1990, by the relevant implementing regulation and by the consortium directives for San Daniele ham, as well as the existence of the specific requirements stipulated by this directive;

6.2.3 arrange for the immediate removal of the brand in the event that conditions of unsuitability are established;

6.2.4 arrange for the final weighing of hams considered suitable for subsequent processing, also recording their number;

6.2.5 arrange for the removal of the certification brand on suitable weighed hams, together with elimination of the upper distal part or "trotter";

6.2.6 undertake all measures necessary to ensure that the hams to be subsequently de-boned are not replaced with others; to this end, the personnel shall affix indelible initials or seals, and on a daily basis shall verify the amount and identification of the product stored for processing on the subsequent days.

6.3 For each session of slicing and packaging San Daniele ham, the inspection personnel shall:

6.3.1 verify that the product prepared for slicing and packaging is identical to that identified for this purpose in the previous inspection session;

6.3.2 arrange total weighing of the product intended for slicing and packaging in the same daily session;

6.3.3 attend the slicing and packaging operations, ensuring that the processed product presents suitable quality characteristics with reference to the standard;

6.3.4 to this end, the personnel may at any time arrange tests and inspections of the product being processed, if necessary requesting the removal of product considered unsuitable.

6.4 In the circumstances of unsuitability specified in the preceding point 6., the dispute and arbitration procedures stipulated in the implementing regulation for the protection law shall apply.

6.5 At the end of the operating session – which shall be no more than one working day of eight hours – the inspection personnel shall:

6.5.1 verify the quantity and total weight of the duly prepared packs;

6.5.2 verify the quantity and total weight of any ham considered unsuitable in accordance with the preceding point 6.3.4.;

6.5.3 verify the quantity of product and the number of packs relating to packaging operations not completed due to operational and technical malfunctions.

6.6 All operations specified in this point 6. shall be summarised in minutes drawn up by the inspection personnel, with reference to each operating session and the operations arranged and inspected in the course of the session.

6.7 The inspection personnel shall ensure that the legally required register is kept for each packaging facility. The following shall be noted in this register, with reference to each individual operating session:

6.7.1 the consecutive number and the date of registration;

6.7.2 references to the details of the register originally kept by the producer, for identification of the initial ham production batch;

6.7.3 the number and total weight of the hams presented for subsequent processing;

6.7.4 the number and total weight of any hams considered unsuitable;

6.7.5 the number and total weight of hams for which removal of the brand and “trotter” has been ordered;

6.7.6 the total weight of the product consequently prepared for slicing;

6.7.7 the total net weight of the sliced ham, noting any ham declared unsuitable during the slicing operations;

6.7.8 the total number of duly prepared packs provided with the certification brand and those eliminated due to technical problems.

6.8 The relevant section of the register shall show the stock accounting for the packs. In this section the initial quantity of packs potentially available is noted, deducted from the statement originally sent by the accredited producer, supplemented by subsequent deliveries; the quantitative values specified in point 6.7.8 are also noted in this section daily.

7 The inspection personnel shall affix or cause to be affixed, under their direct supervision, a special inspection sticker on each pack of San Daniele ham.

7.1 This sticker, in plain text or using a code system, shall bear the following information:

7.1.1 Identification number of the packaging facility;

7.1.2 Sequential number of the packaging carried out by the relevant packer;

7.1.3 Date of the packaging activities;

7.1.4 Personal code of the inspection officer who orders the sticker to be affixed.

8 This directive establishes the following additional standard requirements for San Daniele ham intended for slicing and packaging:
a) Maturing period of no less than 14 (fourteen) months;
b) Absolute colour uniformity of the lean ham.

8.1 Hams are also considered unsuitable if they present even slight non-homogeneities in comparison with the analytical parameters specified in article 2, paragraph 1, letter f) of the law no. 30 dated 14 February 1990, and which present relative humidity values greater than 60%.

8.2 For the purposes of the preceding point 8.1. the consortium shall arrange on-the-spot inspection and samplings with a frequency to be decided and without notice.

8.3 The date of minimum durability for packs of San Daniele ham is harmonised as follows:

8.3.1 from 30 (thirty) to 90 (ninety) days from the date of packaging for modified atmosphere packs;

8.3.2. 90 (ninety) days from the date of packaging for vacuum packs;

8.3.3. 360 (three hundred and sixty) days from the date of packaging for vacuum packs in the traditional tin-plate box.

8.4. The date of minimum durability is indicated with reference to the day, month and year. However, periods shorter than those indicated in point 8.3. are allowed. All dates specified in the preceding point 8.3. refer to the objective conditions of the product, in relation to which the producer chooses the most appropriate indication, for which he is solely responsible.

9. All requirements deriving from the general standards shall apply for packs of sliced San Daniele ham in any event. In particular, the materials used must ensure compliance with the national and EU rules and regulations regarding food packs.

9.1 The slicing and packaging facilities, as well as the general preparation process, must satisfy all hygiene and functional requirements defined by the applicable EC regulations.

9.2 In cases where the competent health authority, within the scope of its supervisory activity, notifies the company and the consortium of operating conditions which it considers prejudicial, the authorisation stipulated in this directive shall immediately be suspended until the ascertained problem has been eliminated; this also applies independently of any measures adopted by the health authority itself.

9.3. In order for the authorisation issued for slicing and packaging San Daniele ham to remain in place, the company concerned must file with the consortium, every six months, analysis certificates relating to:
- bacterial load detected on the product and on the equipment;
- relative humidity of the product, detected on a sample of no less than 0.5% of the total product used.

9.4. The analysis certificates shall be issued either by a company laboratory, a consortium laboratory or an external laboratory, and shall always be signed by a qualified analyst.

10. The authorised companies shall pay a fee to the consortium, based on a unit value for each pack of San Daniele ham produced and the cost of the inspection personnel – differentiated by quantity brackets, if appropriate – intended to cover the cost of the service.

10.l. However, a "one-off" fee shall be paid prior to commencement of the inspected packaging operations.

10.2. The tariffs are fixed by the consortium’s Board of Directors.

10.3. The requirements of Law No. 30 dated 14 February 1990, regarding fees, shall apply in any case.

DAR 03/04
9 November 2004

REGULATORY MEASURES RELATING TO THE PROCESSING OF NON-PDO HAMS
BY ACCREDITED PRODUCERS
IN ACCORDANCE WITH THE PRODUCTION SPECIFICATION FOR
PDO "PROSCIUTTO DI SAN DANIELE"

1. Producers accredited in accordance with the Production Specification regulating the production of PDO "prosciutto di San Daniele" and who operate for these purposes, are forbidden from using pig legs with the distal part ("trotter") for processing product not approved beforehand for the purposes of the PDO.

2. The above-mentioned measures are imposed by the inspection body, which shall ascertain any ineligible circumstances, also for all implementation purposes of Art. 11 of Leg. Decree No. 173/98, by the consortium and by all other bodies responsible for supervision.

3. Accredited producers who contravene this directive shall incur the consortium penalties stipulated in Art. 18 of the Articles of Association, with the procedures specified in the relevant implementing regulation.

4. This directive shall be submitted to the Ministry of Agriculture and Forestry Policies for approval.

MEMBERSHIP CONTRIBUTIONS, ORDINARY MEMBERSHIP CONTRIBUTIONS AND ORDINARY MEMBERSHIP CONTRIBUTIONS FOR DEVELOPMENT OF THE PDO

Article 1

- Scope of application -

1. This regulation is adopted, also for the purposes stipulated in Art. 14, Para. 15, of Law No. 526 dated 29 December 1999, as an implementing measure for Articles 10 and 13 of the consortium's current Articles of Association.

Article 2

- Admission of consortium members -

1. The provisions of Art. 10 of the Articles of Association apply as follows:
    a. For producer members: the provisions of the Articles of Association apply in their entirety;
    b. For ordinary members, with regard to the categories "breeders and slaughterers" only: the formalities for admission of the relevant individuals are discharged by paying the Annual Membership Fees;
    c. For ordinary members, with regard to the category "portioners-packers": the provisions of the Articles of Association apply in their entirety. The category "portioners-packers" refers exclusively to businesses which produce, in suitable premises to which they have tangible access, San Daniele ham "sliced and packaged" for the purposes of the PDO, certified with an individual identification code which is different from that of the producer.

Article 3

- Membership contributions -

1. Reference is made to the provisions of Art. 13, Paragraph 4 of the Articles of Association, with the following specific implementing provisions of points I, IV, V and VIII:
2. For producers:
    a. If a new member, the membership contribution specified in Art. 13, Paragraph 4, Point V (equal share for all) is fixed by the board of directors as a one-off payment;
    b. Only in the case where the producer at the time of the application for admission declares an Installed Production Capacity which qualifies him as a small producer, in accordance with the definition approved by corresponding resolution of the Board of Directors, the membership contribution due in accordance with Art. 13, Paragraph 4, Point VIII, Letter a), is calculated by applying to the original provisions contained in the Articles of Association for estimation of the contribution, a reduction in the value of the multipliers to 1.5; in all other cases the provisions of the Articles of Association apply.
3. For ordinary members in the categories "breeders and slaughterers": the obligation to pay membership contributions to the consortium, where the voluntary contribution is paid by means of payment of the Annual Membership Fees, is discharged directly with payment of the same.
4. For ordinary members in the category "portioners-packers": the obligation to pay membership contributions to the consortium is fixed by the Board of Directors as a one-off payment.

Article 4

- Ordinary contributions -

1. Reference is made to the provisions of Art. 13, Paragraph 4, Point II of the Articles of Association, with the following specific implementing provisions:
    a. For producer members: the provisions of the Articles of Association apply in their entirety;
    b. For ordinary members in the categories "breeders and slaughterers": the Annual Membership Fees also discharge the membership fee due for the relevant year, thereby also implementing the provisions of Decree No. 410 dated 12 September 2000 and Art. 13 of the Articles of Association;
    c. For ordinary members in the category "portioners-packers" as identified in accordance with Art. 1 Point 1.3 of these provisions: the ordinary annual contribution fixed by the Board of Directors.

Article 5

- Ordinary contributions for development of the PDO -

1. In cases where the producer informs the consortium of a change to his Installed Production Capacity (IPC) and the resulting new entity - as defined in Art. 9, Paragraph 1, Letter c of the Articles of Association – the producer shall be required to pay a contribution intended for development of the PDO, the amount of which is obtained by multiplying by a factor of four the product of the ordinary contribution and the difference between the new IPC and that previously certified.
2. If an individual producer increases his production for the purposes of the PDO, resulting in intensified inspection measures as defined in Manuals No. 1 and 4 of the PDO, the producer concerned shall be required to pay an ordinary contribution for development, which is set by the Board of Directors.

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