

Danish Agriculture & Food Council

BENCHMARK 2023



Quality and control

	Denmark	Denmark/UK production	UK	Holland	Germany
Quality system	DANISH Product Standard (since 2007) QSG (since 1995).	Contract for UK Production (since 1998).	The Red Tractor Pigs Scheme launched in 2011 to replace the Quality Standard Mark (launched in 1999). Separate QA schemes for Scotland and Northern Ireland.	IKB Varken (since 1995).	QS (since 2001).
Coverage	95% including 15% under Contract for UK Production.	15% of production.	Approx. 90% of production.	Approx. 99% of production.	Approx. 95% of production.
Identification and traceability	CHR number (herd number) Ear tags Movement record Supplier number. Only Danish pigs are slaughtered in Denmark.	CHR number (herd number) Ear tags Movement record Supplier number. Only Danish pigs are slaughtered in Denmark.	CPH number Slap-marking on shoulders or approved ear tags. On-farm movement record required. The UK primarily slaughters British pigs.	UBN number Ear tags Movement record with identification through registration system. Holland primarily slaughters Dutch pigs.	QS ID Ear tags Supplier number Germany primarily slaughters QS-pigs (inc. German, Danish and Dutch).
Audit	Independent third-party audit every year or every three years depending on the result of the audit. Scheme auditors must allow 48 hours' notice of a visit which must take then place at the agreed time and may not be changed.	Independent third-party-auditevery year. Scheme auditors must allow 48 hours' notice of a visit which must thentake place at the agreed time and may not be changed.	Independent third-party audit every year. Quarterly vet visits for recording and documenting 'Real Welfare Outcomes'. The results of which are recorded within the Red Tractor Pigs Scheme.	Independent third-party audit every year (risk based).	Independent third-party audit either annually or every second or third year. Producer may choose between an audit with 48 hours' notice or two standard announced audits, with an audit of 48 hours' notice in the intervening year.





Health and use of medicines

	Denmark	Denmark/UK production	ик	Holland	Germany
Health advice	Health Advisory Contracts are mandatory for herds of a certain size. Around 90% of pig producers have entered into a Health Advisory Contract with a veterinarian. There are between 9 and 12 annual advisory visits to sow herds and between 2 and 6 annual advisory visits to finisher herds. The number of visits is increased as deemed necessary in matters relating to animal welfare, use of medicines and animal health. Herds with no Health Advisory Contract must have at least one annual visit by a veterinarian. If the antibiotic consumption limit is exceeded in any herd, this triggers a "yellow card" from the authorities, which will result in increased monitoring and action plans will be required.	Health Advisory Contracts are mandatory for herds of a certain size. Around 90% of pig producers have entered into a Health Advisory Contract with a veterinarian. There are between 9 and 12 annual advisory visits to sow herds and between 2 and 6 annual advisory visits to finisher herds. The number of visits is increased as deemed necessary in matters relating to animal welfare, use of medicines and animal health. Herds with no Health Advisory Contract must have at least one annual visit by a veterinarian. If the antibiotic consumption limit is exceeded in any herd, this triggers a" yellow card" from the authorities, which will result in increased monitoring and action plans will be required.	Quarterly veter in ary visits required.	Health Advisory Contracts are mandatory. Each pig producer must have a contract with a veterinarian. The veterinarian is required to visit each farm every month and document his/her findings in a report. All farms are required to have a farm-specific health plan and a farm-specific treatment plan, which must be updated on no less than an annual basis.	Two annual veterinary visits are required. As regards finisher production, one annual visit per finisher batch is required.
Health status	All herds must have a declaration of their health status and Salmonella level. The herd's health status is recorded in a database, which is in the public domain at www.spf-sus.dk. Denmark has Trichina-free status.	All herds must have a declaration of their health status and Salmonella level. The herd's health status is recorded in a database, which is in the public domain at www.spf-sus.dk. Denmark has Trichina-free status.	Herd health plan required which must be drawn up by a vet and include asalmonella control plan, a biosecurity policy and reviews the need for teeth reduction and tail docking. Quarterly veterinary reports submitted to Certification Body.	Central monitoring through the Central Veterinary Institute (Wageningen University) and GD health.	No central health supervision.
Prescription of medicine or antibiotics	Prescriptions require a veterinary diagnosis. The veterinarian does not sell medicine but issues a prescription. The medicine is supplied by a pharmacy. Sales, therefore, remain separate from veterinary advice.	Prescriptions require a veterinary diagnosis. The veterinarian does not sell medicine but issues a prescription. The medicine is supplied by a pharmacy. Sales, therefore, remain separate from veterinary advice.	Prescriptions require a veterinary diagnosis.	Vets can sell medicine. Antibiotics may only be prescribed for 7 days. Prescriptions require a veterinary diagnosis.	Vets can sell medicine. Antibiotics may only be prescribed for 7 days. Prescriptions require a veterinary diagnosis.
Registration of medicine usage	Pig producers must register the herd's medicine-usage.	Pig producers must register the herd's medicine usage.	Pig producers must register the herd's medicine usage.	Pig producers must register the herd's medicine usage.	Pig producers must register the herd's medicine usage.
Monitoring medicine usage	Medicine consumption is registered in the VETSTAT database with information on the animal group, herd owner and veterinary level. The headline results are published each year in the DANMAP report.	Medicine consumption is registered in the VETSTAT database with information on the animal group, herd owner and veterinary level. The headline results are published each year in the DANMAP report.	Central monitoring but proposals under consideration for monitoring at individual herd/species level. Records for all medicine must be Kept for five years.	Consumption per herd and age group are registered in a central database at herd owner or veterinary level.	Central monitoring. Monitoring was introduced at herd level in 2015.



	Denmark	Denmark/UK production	ик	Holland	Germany
Total usage of antibiotics – production of all meat types	33.4 mg antibiotics/kg animal production (biomass).	33.4 mg antibiotics/kg animal production (biomass).	28.3 mg antibiotics/kg animal production (biomass).	47.6 mg antibiotics/kg animal production (biomass).	73.2 mg antibiotics/kg animal production (biomass).





Feed

	Denmark	Denmark/UK production	UK	Holland	Germany
Production	Danish authorities are responsible for the control of the feed industry. Feed must be purchased from Danish authorized, or QS approved feed companies. The frequency of the official audit is determined on the basis of a risk assessment and the frequency varies between 1-5 annual visits. Danish authorities also carry out annual inspection visits to home-mixers. Soya, whether in pure form or in compound feed, must be purchased from a supplier that appears on the list of companies that comply with the agreement drawn up by Danish agriculture for the use of responsible soya.	Danish authorities are responsible for the control of the feed industry. Feed must be purchased from Danish authorized, or QS approved feed companies. The frequency of the official audit is determined on the basis of a risk assessment and the frequency varies between 1-5 annual visits. Danish authorities also carryout annual inspection visits to home-mixers. Soya, whether in pure form or in compound feed, must be purchased from a supplier that appears on the list of companies that comply with the agreement drawn up by Danish agriculture for the use of responsible soya.	Compound feeds may only be purchased from UFAS (Universal Feed Assurance Schemes) approved feed companies. Raw materials must be from FEMAS approved supply chain. Homemixers must follow Industry Code of Practice for On-farm Feeding.	Feed can only be purchased from GMP + approved feed companies.	Feed can only be purchased from QS approved feed companies.
Meat-and-bone meal	Not permitted	Not permitted	Not permitted	Not permitted	Not permitted
Blood products	Permitted	Not permitted	Not permitted	Permitted	Permitted
Animal fat	Permitted	Not permitted	Not permitted	Permitted	Permitted
Antibiotic growth promoters	Not permitted since 2000.	Not permitted since 2000.	Not permitted since 2006.	Not permitted since 2006.	Not permitted since 2004.
Catering waste and food industry by-products	Catering waste is not permitted but certain food industry by- products are allowed.	Catering waste is not permitted but certain food industry by-products are allowed.	Catering waste is not permitted but certainfood industry by-products are allowed.	Catering waste is not permitted but certain food industry by-products are allowed.	Catering waste is not permitted but certain food industry by-products are allowed.
Fish meal	Fish meal may not be used for finished pigs above 40 kg.	Fish meal may not be used for finished pigs above 40 kg.	Fish meal permitted	Fish meal permitted	Permitted, but only at farms exclusively focused on pig production.
GMO	Use of GMO feed is permitted.	Use of GMO feed is permitted.	Use of GMO feed is permitted.	Use of GMO feed is permitted.	Use of GMO feed is permitted.





Housing and welfare

	Denmark	Denmark/UK production	UK	Holland	Germany
Pregnant sows	Housed in accordance with EU legislation. The pen must not be narrower than 3 m. Strawmust be present on the solid/slated floor. According to new Danish legislation, sows cannot be confined from weaning to 7 days before farrowing. The legislation applied from 1 January 2015 for new buildings and from 1 January 2035 in all buildings. This also applies to pigs produced under the Contract for UK-Production.	Housed in accordance with EU legislation. The pen must not be narrower than 3 m. Straw must be present on the solid/slated floor. According to new Danish legislation, sows cannot be confined from weaning to 7 days before farrowing. The legislation applied from 1 January 2015 for new buildings and from 1 January 2035 in all buildings. This also applies to pigs produced under the Contract for UK-Production.	No confinement from weaning to 7 days before predicted date of farrowing. At least 2.8 m between the sides of the pen in indoor systems except where there are 6 or less sows/gilts where the sides should be at least 2.4 m. Around 40% of the UK breeding herd is kept outdoors.	Housed in accordance with EU legislation. At least 2.8 m between the sides of the pen. Sows and gilts must be housed in groups from 4 weeks after insemination to 7 days before expected farrowing.	Housed in accordance with EU legislation. At least 2.8 m between the sides of the pen or at least 2.4 m between the sides of the pen wherethereare fewer than six pigs.
Farrowing pens	Housed in line with EU legislation. Appropriate nest building material in sufficient quantities is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. If necessary, there must be a source of heat.	Housed in line with EU legislation. Appropriate nest building material in sufficient quantities is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. If necessary, there must be a source of heat.	Under EU legislation, use of farrowing pens is permitted. Appropriate nest building material in sufficient quantities is required, unless this is technically impossible because of the slurry system used at the farm. The piglets must have a thermally comfortable and dry lying area.	Housed in line with EU legislation. Appropriate nest building material in sufficient quantities is required unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. There must be a source of heat.	Housed in line with EU legislation. Appropriate nest building material in sufficient quantities is required unless this is technically impossible because of the slurry system used at the farm. The piglets must have an area that is separate from the sow. There must be a source of heat.
Weaning of piglets	After 28 days or 21 days for batch production.	After 28 days or 21 days for batch production.	After 28 days or 21 days for batch production.	After 28 days or 21 days for batch production.	After 28 days or 21 days for batch production.
Enrichment and rooting materials	All pigs must have permanent access to sufficient quantities of straw or other manipulable rooting and enrichment material. Enrichment and rooting material must be of natural materials and in contact with the floor. Chains alone are not acceptable.	All pigs must have permanent access to sufficient quantities of straw or other manipulable rooting and enrichment material. Enrichment and rooting material must be of natural materials and in contact with the floor. Chains alone are not acceptable.	Allpigs must have permanent access to sufficient quantities of enrichment and other rooting materials. Chains alone are not acceptable.	All pigs must have permanent access to manipulable materials. The material must be harmless and adequate. Chains with plastic hooks are allowed. A single chain is sufficient.	All pigs must have permanent access to manipulable materials. The material must be harmless and adequate. Chains with plastic hooks are permitted.
Flooring for piglets and finishers	As regards pens for breeding and finished pigs, at least 1/3 of the floor must be solid or drained. As regards pens for piglets, at least 1/2 of the floor must be solid or drained.	As regards pens for breeding and finished pigs, at least 1/3 of the floor must be solid or drained. As regards pens for piglets, at least 1/2 of the floor must be solid or drained.	Fullyslatted floors are permitted provided minimum slat and opening widths are observed.	40% solid floor for piglets and finishers required.	Fullyslatted floors are permitted.
Sprinkling system	All pigs over 20kg (including sows) must have access to a sprinkling system or an alternative that can keep the pigs cool in warm weather.	All pigs over 20kg (including sows) must have access to a sprinkling system or an alternative that can keep the pigs cool in warm weather.	No regulation	No regulation	No regulation



	Denmark	Denmark/UK production	ик	Holland	Germany
Hospital pens	Hospital pens required. There must be an adequate number of hospital pens so that there is always at least one hospital pen available for pigs that are sick or injured. It is recommended that the total number of hospital pens should account for at least 2-5% of the total number of indoor places for sows.	Hospital pens required. There must be an adequate number of hospital pens so that there is always at least one hospital pen available for pigs that are sick or injured. It is recommended that the total number of hospital pens should account for at least 2-5% of the total number of indoor places for sows.	Hospital pens required. Isolation of animals with infectious diseases required.	Hospital pens must be well ventilated and warm and dry.	Sick or injured animals must be isolated in a pen with dry and comfortable straw bedding.
Castration	local anaesthetic to piglets prior to castration. Piglet castration with prior local anaesthetic must take place between the animal's 2nd and 7th day of life. The animal must also be given long-lasting pain relief. If castration takes place after the piglet's 7th day of life, the procedure must be carried out by a veterinarian and the	Farmers who have completed a course approved by the Danish Veterinary and Food Administration may administer local anaesthetic to piglets prior to castration. Piglet castration with prior local anaesthetic must take place between the animal's 2nd and 7th day of life. The animal must also be given long-lasting pain relief. If castration takes place after the piglet's 7th day of life, the procedure must be carried out by a veterinarian and the animal must be anaesthetised and given long-lasting pain relief.	Castration is not permitted under RTA standards. According to UK legislation, castration is permitted up to the seventh day after birth.	Pain relief must be administered prior to castration. Anestheticmust beusedif castration is carried out seven days after farrowing.	The castration of the piglets is only permitted with effective elimination of pain. Pain relief must be administered prior to castration.
Tail docking	Not permitted on a routine basis but permitted if it can be documented that measures have been taken to prevent tail biting and a risk assessment is available. Only permitted between day two and four after birth and no more than half of the tail may be docked. An action plan for preventing tail biting and how to stop tail docking is also required.	Not permitted on a routine basis but permitted if it can be documented that measures have been taken to prevent tail biting and a risk assessment is available. Only permitted between day two and four after birth and no more than half of the tail may be docked. An action plan for preventing tail biting and how to stop tail docking is also required.	Only within the first 72 hours and not on a routine basis.	Only within the first 72 hours and not on a routine basis.	Docking of part of the tail no later than four days after birth.
Tooth reduction	Tooth clipping is not permitted. Tooth grinding is allowed but not on a routine basis. Tooth grinding must take place within the first three days of birth.	Tooth clipping is not permitted. Tooth grinding is allowed but not on a routine basis. Tooth grinding must take place within the first three days of birth.	Tooth clipping or grinding is allowed up 72 hours after birth, but not on a routine basis.	Tooth grinding is allowed up 72 hours after birth, but not on a routine basis.	Tooth grinding is allowed within the first seven days of birth, but not on a routine basis.





The environment

	Denmark	Denmark / UK production	ик	Holland	Germany
Application of nitrate (N)	170kg N/hectare	170kg N/hectare	170kg N/hectare	170kg N/hectare	170kg N/hectare
Storage of slurry	Storage capacity for at least six months' production. For pigs, this typically equates to at least nine months' storage. The slurry tank must be covered or have a floating lid.	Storage capacity for at least six months' production. For pigs, this typically equates to at least nine months' storage. The slurry tank must be covered or have a floating lid.	Storage capacity for six months' production.	Storage capacity for at least seven months' production. The slurry tank must be covered, but no requirements as regards material.	Six to nine months' storage capacity required according to region.
of nutrients	Slurry spreading can only take place in the crop growing season, i.e., from 1 February to harvest and from harvest to 1 October. The utilization requirement for nitrogen in pig slurry is 80%.	Slurry spreading can only take place in the crop growing season, i.e., from 1February to harvest and from harvest to 1 October. The utilization requirement for nitrogen in pig slurry is 80%.	Slurry spreading can only take place in the crop growing season, i.e., from 1 February to harvest and from harvest to 15 October.	Slurry spreading may only take place in the crop growing season, i.e., from 1 February to 15 September. The utilization requirement for nitrogen in pig slurry is 60-80 % depending on soil type.	Requirement covering the spreading period is not known and there is no specific EU legislation. Requirement for 60% utilization of nitrogen in the slurry.
Feed conversion: Covers feed for piglets and finished pigs, kg feed/kg growth (InterPIG 2014 and own calculations)	2.58	2.58	2.82	2.56	2.80





Transport

	Denmark	Denmark / UK production	UK	Holland	Germany
Control	Official controland control through abattoirs' own controls, as required by the Global Red Meat Standard. Drivers must follow legislative as well as industry requirements as set out in the "Handbook for Pig Transport".	Official control and control through abattoirs' own controls, as required by the Global Red Meat Standard. Drivers must follow legislative as well as industry requirements as set out in the "Handbook for Pig Transport".	Drivers must be certified in accordance with the ABP Livestock Transport Standard.	Drivers must be certified in accordance the IKB Transport Standard.	Drivers must be certified in accordance with the QS Transport Standard.
Vehicle requirements	The abattoirs have introduced new requirements for vehicles, e.g. mechanical ventilation, GPS systems, drinking water and sprinkler systems. Compliance with the requirements is checked on arrival at the abattoir.	The abattoirs have introduced new requirements for vehicles, e.g. mechanical ventilation, GPS systems, drinking water and sprinkler systems. Compliance with the requirements is checked on arrival at the abattoir.	RTA Livestock Transport Scheme. Rules based on EU legislation.	Certain requirements additional to EU legislation, e.g. GPS in all vehicles.	Rules based on EU legislation.
Group handling of finishers during transport	Pigsaretransported in small groups (15-20) and, wherever possible, in pen groups from the farm.	Pigs are transported in small groups (15-20) and, wherever possible, in pen groups from the farm.	RTA Livestock Transport Scheme. Stocking densities according to EU legislation. Pigs must be kept in farm groups to meet BMPA Pork Scheme standards.	Pigs are kept in their peer groups. No mixing.	Pigs may be mixed. There are maximumgroup sizes for the transport of piglets (up to 120 piglets for pigs up to 10 kg and 50 pigs for pigs up to 25kg and max 35 pigs for pigs up to 25-30 kg.
Training of drivers	From the early 1990s, all those involved in the handling of animals during transport were required to attend a training course. This course was replaced by a formal training requirement under EU regulation 1/2005, which came into force on 1st January 2007.	From the early 1990s, all those involved in the handling of animals during transport were required to attend a training course. This course was replaced by a formal training requirement under EU regulation 1/2005, which came into force on 1st January 2007.	RTA Livestock Transport Scheme. Training requirements according to EU legislation.	Training requirements in place since 2008 via EU legislation.	Training requirements in place since 2008 via EU legislation.
Mortality during transport	0.011% in 2021 (applies to finished pigs).	0.011% in 2021 (applies to finished pigs).	No statistics available.	No statistics available.	No statistics available.





Abattoir

	Denmark	Denmark / UK-production	ик	Holland	Germany		
Laira	ge Group handling, which means that, as far as possible, pigs are not mixed. All pigs are kept in small groups (approx. 15 animals).	Group handling, which means that, as far as possible, pigs are not mixed. All pigs are kept in small groups (approx. 15 animals).	RTA Meat Processing Scheme (British Quality Assured Pork - BQAP). Pigs must be kept in farm groups. Group handling takes place in some abattoirs. According to the BMPA Pork Scheme Standards, CCTV cameras in the lairage area are required.	Pigs are kept in their peer groups. No mixing.	No group handling. Pigs are mixed.		
Trai	ing Training of abattoir workers in animal welfare and the handling of animals is required.	Training of abattoir workers in animal welfare and the handling of animals is required.	RTA Meat Processing Scheme (British Quality Assured Pork - BQAP).	With effect from 2013, legislation requires training for Animal Welfare Officers.	Stockpersons to be trained in line with the provisions of the Infection Protection Act and such training must be documented. Training courses are to be held at least once a year under the QS scheme.		



Meat safety

	Denmark	Denmark/UK production	ик	Holland	Germany
Salmonella monitoring	Whole chain Salmonella surveillance and control program since 1995 including feed, breeding herds, sow and finisher herds. Surveillance at herd level is based on both serological and bacteriological sampling.	Whole chain Salmonella surveillance and control program since 1995 including feed, breeding herds, sow and finisher herds. Surveillance at herd level is based on both serological and bacteriological sampling.	No national surveillance of pig farms. Pigfarms are required to have a Salmonella control plan	Monitoring via IKB system.	Surveillance via QS system.
	Public declaration of Salmonella levels in finisher herds. Public declaration of Salmonella index in breeding herds. Public declaration of Salmonella category in all herds.	Public declaration of Salmonella levels in finisher herds. Public declaration of Salmonella index in breeding herds. Public declaration of Salmonella category in all herds	included in their veterinary plans.	Comprises monitoring of finisher herds and fresh meat surveillance.	Comprises monitoring of feed, finisher herds and fresh meat surveillance.
	Financial penalties for Level 2 and 3 finisher herds and breeding herds with a high index.	Financial penalties for Level 2 and 3 finisher herds and breeding herds with a high index. $ \\$			
	Fresh meat surveillance, including sampling of pig carcasses at abattoir (swab samples from carcasses).	Fresh meat surveillance, including sampling of pig carcasses at abattoir (swab samples from carcasses).			
Prevalence of Salmonella (Fresh pork)	According to the EFSA EU One Health Zoonoses Report 2020, the Salmonella prevalence in EU process hygiene criteria samples was 0.90 %. In 2021 the prevalence in the national surveillance was 0.7 %.	According to the EFSA EU One Health Zoonoses Report 2020, the Salmonella prevalence in EU process hygiene criteria samples was 0.90 %. In 2021 the prevalence in the national surveillance was 0.7 %.	-	According to the EFSA EU One Health Zoonoses Report 2020, the Salmonella prevalence in EU process hygiene criteria samples was 2.6%.	According to the EFSA EU One Health Zoonoses Report 2020, the Salmonella prevalence in EU process hygiene criteria samples was 0.47%.
Residue monitoring	National monitoring program comprising approx. 9,000 official samples per year. (According to EU regulations, 0.05% of animals slaughtered per year, which corresponds to 8,782 samples in DK, 2019). In addition, there are around 9,000 own control samples (2019 figures) for antibiotic residues.	National monitoring program comprising approx. 9,000 official samples per year. (According to EU regulations, 0.05% of animals slaughtered per year, which corresponds to 8,782 samples in DK, 2019). In addition, there are around 9,000 own control samples (2019 figures) for antibiotic residues.	National monitoring program in accordance with EU regulations.	National monitoring program in accordance with EU regulations.	National monitoring program in accordance with EU regulations.
Residue surveillance results (National residue monitoring plans, Commission Staff Working Paper, 2010)	The Danish Veterinary and Food Administration (2021) Growth hormones (A3):0 Heavy metals (B3c): 0 Antibiotics (B1): 1 Banned substances (A6): 0 Pesticides(B3a): 0	The Danish Veterinary and Food Administration (2021) Growth hormones(A3): 0 Heavy metals (B3c): 0 Antibiotics (B1): 1 Banned substances (A6): 0 Pesticides (B3a): 0	Growth hormones (A3): 0 Heavy metals (B3c): 0 Antibiotics(B1): 1 Banned substances (A6): 1 Pesticides (B3a): 0	Growth hormones (A3): 9 Heavy metals (B3c): 0 Antibiotics (B1): 29 Banned substances (A6): 0 Pesticides (B3a): 0	Growth hormones (A3): 0 Heavy metals (B3c): 282 Antibiotics (B1): 5 Banned substances (A6): 2 Pesticides (B3a): 0

