

National standard for milk production

QM-Standard

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Uniform nationwide quality management for milk

Scheme owner: **QM-Milch e.V.**
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Content

1.	General introduction	4
1.1.	Basic information	4
1.2.	QM-Standard	4
1.3.	QM-Milch Advisory Board	5
2.	Objective.....	5
3.	Scope of application	6
4.	General requirements	6
4.1.	Animal health and welfare.....	6
4.2.	Identification of animals and holding register	7
4.3.	Milk production and storage	7
4.4.	Feed	7
4.5.	Veterinary medicines	8
4.6.	Environment	9
4.7.	Documentation of diagnostic data from slaughter	9
5.	Residue investigations	9
6.	Control system.....	10
6.1.	Requirements for the certification bodies	10
6.2.	Requirements for the auditors.....	11
6.3.	Further education and training	12
6.4.	Obligations of the company to be certified to cooperate.....	12
6.5.	Inspection system	13
6.6.	Control interval: System and special controls.....	13
6.7.	Evaluation of the control result.....	16
7.	awarding of certificates	17

1. General introduction

1.1. Basic information

Food production implies the highest demands on quality and safety of the product and the production process. Due to the existing and more developed quality assurance systems, the positive image of milk and dairy products among consumers is constantly being improved.

Quality assurance in the field of milk production and processing is based on extensive legal regulations and controls (Raw Milk Quality Ordinance, national food and feed law, EU hygiene regulations for food of animal origin, etc.), which are supplemented by voluntary quality programmes of the economic partners involved. The quality assurance and management systems built up in recent years are based on the principle of self-responsibility and self-checks.

The internationalisation and globalisation of the milk markets and, in particular, the additional requirements that have arisen for agricultural businesses due to EU food hygiene legislation, among other things, present challenges for the dairy industry. For this reason, the quality assurance measures available in Germany in the field of milk production and processing have been placed on a uniform nationwide basis.

The quality assurance system for milk production that has been established and constantly improved for decades is becoming more transparent the entire value chain and increases acceptance at all stages of the production process and processing. This serves to safeguard the high level of quality in the face of increasing competition as well as for image-enhancing communication with consumers, politics and traders.

1.2. QM-Standard

On the initiative of the German Farmers' Association (DBV), the German Raiffeisen Association (DRV) and the Association of the German Dairy Industry (MIV), a working group developed the basis for an uniform nationwide quality management for milk (QM-Standard) in 2002. The quality management for milk, developed by the three associations mentioned with the support of the entire dairy industry, is a process assurance system for milk production. This milk quality management system was further developed into the present standard. The public was involved in the development of the QM-Standard via regional associations in accordance with § 14 of the milk and fat act.

The registered association QM-Milch is the scheme owner. Its statutes exclude conflicts of interest between the scheme owner and certification bodies.

1.3. QM-Milch Advisory Board

The requirements and criteria of the QM-Standard are defined in the QM-Milch Advisory Board. The QM-Milch Advisory Board consists of associations and organisations representing the milk value chain.

The members of the QM-Milch Advisory Board are appointed in accordance with § 15 of the Articles of Association of QM-Milch e.V. by:

- German Farmers' Association (agriculture, milk producers)
- Association of the German Dairy Industry (dairy industry)
- German Raiffeisen Association (dairy industry)
- Association of German Food Retailers (food retailers)
- Representatives of regional dairy organisations

Other expert professionals, such as representatives of business sectors concerned, may be invited to the meetings, but have an advisory function only.

2. Objective

In addition to ensuring product quality, process quality is becoming increasingly important. Beyond the parameters directly detectable in the product, the entire milk production process should meet the requirements of processors and consumers. The aim of the QM-Standard is to control the production process, i.e. to ensure the quality of the raw milk at the milk producer level.

The QM-Standard sets out strict and verifiable requirements for milk production. In addition to compliance with the legal requirements and the requirements for good professional practice, the QM-Standard prescribes additional requirements for milk production in order to ensure both, transparency and traceability of the system and to take socially relevant requirements for milk production into account. The control of these process parameters creates additional safety for the products and does justice to the high reputation of milk and dairy products.

3. Scope of application

The QM-Standard consists of the national standard for milk production, the QM Criteria Catalogue and the QM Manual for milk producers. Together, these elements form the normative certification basis for the QM-Standard. Version 2020.2 is valid from 1 January 2023 and replaces version 2020.

The QM-Standard covers the basic requirements for the process of producing cow's milk in Germany. It applies to all milk producers who participate in the QM certification programme in accordance with the milk supply conditions of the dairies or voluntarily. Within the framework of the certification process, suitable agreements are made that enable the certification body to fulfil its certification services (in accordance to DIN EN ISO/IEC 17065).

The QM criteria catalogue sets out the fulfilment criteria for the QM certification programme, which result from legal requirements, requirements for good professional practice and requirements for milk production that go beyond this. These requirements are precisely formulated in the QM-Standard Manual for milk producers.

As a dynamic system that is constantly being further developed, the QM-Standard integrates new findings and requirements. Updates are scheduled every three years. Should legal requirements, affecting the criteria in the QM-Standard change, they will be adapted accordingly.

The standard documents are publicly available and can be viewed at www.qm-milch.de.

4. General requirements

The control of the production process includes the verification of

- health and welfare of the animals,
- identification and origin of the animals,
- milk production and storage,
- feeding and
- compliance with the requirements of medicinal product law
- aspects of environmental protection.

4.1. Animal health and welfare

Milk may only be classified as food if certain hygiene and husbandry conditions are met. Furthermore, strict requirements are placed on the health of the cows. Among other things, cows

from which milk is obtained as food must not show any recognisable signs of a disorder of their general state of health.

To ensure udder health, regular monthly herd inspections are carried out. If udder diseases are suspected, individual animal examinations are carried out for the treatment or selection of chronically udder-diseased and therapy-resistant cows.

4.2. Identification of animals and herd register

In accordance with the legal requirements, the milk producer is obliged to mark each cow with two ear tags. If an ear tag is lost, the milk producer must immediately apply for a replacement ear tag from the responsible authority and re-identify the animal.

Every livestock keeper is obliged to keep a herd register according to the Livestock Ordinance (VVVO). Every change in the cattle herd must be recorded in the official database (HITier-Database).

4.3. Milk production and storage

The environment in which cows are milked must be designed in a way that high-quality milk production can be ensured. The rooms in which milking takes place must be adequately lit and ventilated. The milking equipment, the milking cluster and the milk cooling tank must be maintained regularly. Special hygiene requirements are placed on the milking personnel and the milking work.

The cooling and storage of the milk must be carried out in a way that the milk is not adversely affected, e.g. by unauthorised access by third parties, vermin, etc.

4.4. Feed

The use of feed is a central component in the production of high-quality food. Therefore, special demands must be made on the purchase and use of feed.

Milk producers may only use those purchased feed (compound and straight feed) from producers and traders who are subject to an agreement, based on the feed agreement. The feed agreement can be viewed and accessed at www.qm-milch.de. In addition, only feed that is included in the "Positivliste für Einzelfuttermittel" may be used.

Within the framework of monitoring programmes by official bodies and other institutions, feed is tested for undesirable substances.

Each delivery of feed shall be documented by the milk producer by means of delivery notes, specified invoices or other evidence. This also applies to the purchase of feed produced on farms.

Feed mixes can be effectively prevented by storing feed separately for different animal species.

Nutrient analyses are prescribed within the framework of ration calculations in order to comply with animal-friendly and environmentally friendly feeding. In case of justified suspicion of contamination, the farm's own feed is also subjected to a residue control.

4.5. Veterinary medical products

The milk producer must clearly identify treated cows. Milk from cows treated with veterinary medicinal products may only be reintroduced to the market after the waiting period has expired. The milk delivered must be free of inhibitors. In accordance with the Raw Milk Quality Ordinance, the QM basic raw milk monitoring (see 5. Residue testing) and, if applicable, the milk supply regulations, the milk is regularly (several times per month) tested for inhibitors.

Every milk producer has to monitor his livestock with the support of a veterinarian within the framework of the farm's own controls. The aim is to maintain the health status of the herd. The conclusion of a veterinary care contract is recommended.

The milk producer must be able to present prove of the purchase of prescription-only or pharmacy-only veterinary medicinal products at any time. Care must be taken to ensure that the records are completed in full. The records must be filed chronologically and kept for five years. The milk producer must document every use of veterinary medicinal products in his livestock. When the milk producer administers the veterinary medicinal products, the instructions of the veterinarian, which are to be taken from the aforementioned proofs of purchase, are to be followed exactly. The waiting periods to be indicated by the veterinarian must be strictly adhered to. In principle, sera, vaccines and antigens may only be used by veterinarians (§ 43 Animal Vaccine Ordinance). The responsible authority may allow exceptions in individual cases at the request of the veterinarian (§ 44 Animal Vaccine Ordinance). The

medicinal products received from the veterinarian/pharmacy shall be kept in accordance with the accompanying pharmaceutical information. After exceeding the expiry dates, the medicinal products must be disposed properly. The cleanliness and expediency of the instruments shall be ensured.

Milk producers are to participate in QS antibiotics monitoring programme. It is intended to make the implementation of QS antibiotics monitoring programme mandatory at a later date. The mandatory implementation will be announced to the participating farms at least 12 months in advance. The requirements are defined in the QS Guideline Antibiotics Monitoring Cattle. Antibiotics may only be prescribed and dispensed by veterinarians who are registered in the antibiotics database.

4.6. Environment

Every year, the farm must document its fertiliser requirement calculation and the fertilizer quantities applied in the past crop year (usually the economic year).

The application of farm manure is carried out according to the guidelines of good professional practice.

4.7 Documentation of diagnostic data from slaughter

Milk producers are to participate in the QS slaughter inspection data collection. It is intended to make the implementation of the QS slaughter inspection data collection mandatory at a later date. The mandatory implementation will be announced to the participating farms at least 12 months in advance. The transfer of the results of the diagnostic data collection to the QS diagnostic database is the responsibility of the abattoir. The requirements are laid down in the Guideline Diagnostic Data in Cattle Slaughtering.

5. Residue testing

In order to prevent the possible introduction of undesirable substances into the milk, numerous tests are carried out by both the dairies and the official bodies in accordance with the applicable regulations.

As part of their general duty of care, the dairies regularly have chemical-analytical tests carried out on the milk or milk-based products. The tests are carried out as part of monitoring or

as individual tests for substances (residues and pollutants) that are harmful or that could undesirably change the organoleptic properties of the milk or the products. The scheme owner has published the requirements for basic raw milk monitoring, to which the establishments to be certified are subject, at www.qm-milch.de in the currently valid version.

The residue analyses are carried out at milk tanker level, from defined composite samples from several producers, from the raw milk tank of the dairy or from individual producer samples.

In addition, feed can be examined for undesirable substances within the framework of official monitoring programmes and, in the case of anomalies, on behalf of e.g. dairy industry associations or state control associations. In addition, the feed industry carries out residue tests as part of its HACCP concept.

6. Control system

6.1. Requirements for the certification bodies

The neutral monitoring and certification of dairy farms participating in the QM certification programme is carried out by independent certification bodies. These certification bodies carry out inspections on the dairy farms - referred to in the QM-Standard as audits, inspections or tests. The certification bodies determine whether the dairy farms are complying with the requirements of the QM-Standard, evaluate the results and make a decision on certification.

Certification bodies that are accredited according to DIN EN ISO/IEC 17065 / QM-Milch Scope can be considered.

The certification bodies are authorised by the scheme owner QM-Milch e.V. for QM-Milch certification. Before the certification bodies start QM audits and certifications, they have to go through the authorisation procedure and sign the contract with the scheme owner. The procedure for the approval of the certification body can be viewed and downloaded at www.qm-milch.de.

The certification bodies shall ensure that the performance and results of the audits are documented in detail and without gaps. The certification bodies agree to send information requested by the scheme owner QM-Milch e.V. to the latter in a timely manner and to grant the same access to documents relating to the activities of the QM audits and certifications. The certification bodies are obliged to send the scheme owner QM-Milch e.V. an evaluation of the

audits carried out. For this purpose, the nationwide data interface in the QM system is to be used and the regulations made for this are to be complied with. These evaluations form the basis for an assessment of the implementation of the standard.

The certification bodies have qualified auditors who fulfil the requirements listed under point 6.2. The certification bodies shall ensure that the auditors have successfully demonstrated the technical knowledge for QM inspections and participate in the regular QM training and further training measures (point 6.3). Personnel who carry out the assessment of evaluations and personnel who make decisions on the award of certification must each have a qualification that at least corresponds to point 6.2. In addition, the requirements according to point 7 apply.

In the event of violation of the regulations according to the QM-Standard and in the event of a lack of cooperation with the scheme owner, QM-Milch e.V reserves the right to take sanctioning measures against the certification body and, if necessary, to revoke the authorisation.

6.2 Requirements for the auditors

Compliance with the QM criteria by the QM system participants is checked by qualified auditors of the certification bodies.

The QM auditors must provide evidence of specialist knowledge in accordance to DIN EN ISO/IEC 17065 / QM-Milch Scope, which is relevant for the activity as an auditor for the QM certification programme. For this purpose, training as an auditor must be provided. An auditor candidate must carry out at least three audits himself under the supervision of an approved auditor. Approved auditors must carry out at least ten audits per year in the QM certification programme or equivalent audits in the cattle sector, e.g. in the area of cattle fattening or organic cattle and dairy farming. If less than ten audits per year are carried out in the areas mentioned, auditors must complete an audit under the supervision of an approved auditor in the following year.

One of the following professional requirements is placed on the auditors:

- Vocational qualification as farmer and/or animal farmer - specialising in cattle farming or
- Graduation from an agricultural college (e.g. state-certified economist/technician/agricultural business economist, agricultural manager) or
- Completion of a master's examination in the profession of farmer or animal farmer - specialising in cattle farming or

- Completion of an agricultural science degree programme Diplom-Agraringenieur/Diplom-Agraringenieur (FH)/Bachelor's or Master's degree FH/Uni or
- Completion of vocational training in the dairy industry or
- at least three years professional experience as a milk inspection employee.

In justified individual cases, the certification bodies may recognise other professional qualifications and experience in consultation with the scheme owner.

6.3 Further education and training

Auditors must be trained on the QM-Standard before they start working in the system. Thereafter, they are obliged to attend training on the QM-Standard on a regular basis, but at least once a year. The training courses are either offered and carried out by QM-Milch e.V. or by the responsible certification body itself. However, the latter must ensure that representatives from the certification body have taken part in the training sessions offered by QM-Milch at least once per year.

6.4 Obligations of the company to be certified to cooperate

The enterprise to be certified shall continuously provide the certification body with the data of the monthly raw milk quality assessment which may lead to special controls according to the provisions of this standard and shall immediately inform the certification body about suspensions of milk deliveries. Suspensions of milk deliveries may result from exceeding the limit values for bacterial count (100,000 per ml) or cell count (400,000 per ml) or inhibitors, as well as from any complaints that may have arisen from results within the framework of pollutant or residue monitoring programmes of the dairies, such as in particular the basic raw milk monitoring in accordance with point 5 of the QM-Standard, or from official bodies within the meaning of the Contaminants Regulation. The certification body must be able to determine on an ongoing basis whether special controls are to be triggered here in the sense of point 6.6 of the QM-Standard.

When applying for initial certification, the milk producer must provide the certification body with the following information or authorise the certification body to access it: Raw milk quality data for the last six months, the daily delivery quantity and the number of spatially separated barn structures, milking parlours and milk tank rooms, if the quantity exceeds one.

6.5. Inspection system

The QM criteria catalogue contains the QM criteria according to which audits are carried out. The QM auditors check compliance with the QM criteria with the help of the "QM checklist for self-assessment/audit protocol". These correspond to the QM criteria catalogue, which can be found in the appendix to the QM-Standard.

Compliance with the individual requirements is evaluated according to a 2-point scheme, with 0 points meaning that the criterion has not been met. 1 point is awarded if the criterion has been met. In addition, a bonus point can be awarded for some requirements if the criterion has already been assessed with one point. Criteria that have a particularly critical influence on food safety and traceability are defined as mandatory criteria (knock out / k.o. criteria) that must be met without fail. In addition, selected criteria (focus criteria) in the focus areas of animal welfare, dairy hygiene and operational environment have a higher priority.

The QM criteria catalogue comprises a total of 69 criteria. Of these, 20 are knock-out criteria. A maximum score of 80 can be achieved. The minimum score required to pass the audit is 61. An improvement process is planned. This results not only from the continuous adaptation of the QM-Standard but also from the specification of certain minimum scores for the focus areas of animal welfare, dairy hygiene and operational environment. The audit frequency is based on the number of points achieved in the focus criteria in accordance with the regulations laid down in 6.6.

6.6. Audit frequency: System and special controls

The system audit of the milk producers by the certification body is regularly carried out every three years. The score achieved in the audit - without taking the bonus points into account - in the three focus areas of animal welfare, milk hygiene and operational environment, determines the date of the follow-up audit:

Table 6.6: Timing of follow-up audits according to the result of the focus area assessment

Score in Focus areas	Follow-up audit
Animal welfare: 11 - 13 Milk hygiene: 12 - 14 Operational environment: 8 - 10	In three years

Animal welfare: <11
Milk hygiene: <12 After 18 months
Operational environment: <8

The certification body may announce the audit to the milk producer no more than 3 weeks in advance.

During the on-site audit, the process quality of milk production is checked. Compliance with process quality is constantly verified against product quality. Therefore, the milk delivered by each milk producer is tested in laboratories accredited according to DIN EN ISO/IEC 17025 and approved by the responsible regional authorities.

The minimum number of examinations per milk producer and month shall be for the following examination criteria:

Table 6.7: Minimum number of analyses per month

Analysis criterion	Minimum no. of analyses	Raw Milk Quality Ordinance Specification
Milk fat	4 times	3 times
Milk protein	4 times	3 times
Milk urea	4 times	No provision
Cell count (indication of udder health)	2 times	1 time
Germ count (indication of bacteriological condition)	2 times	2 times
Freezing point (indication of purity and naturalness)	1 time	1 time
Inhibitor group 1 (quinolones)*.	2 times*	2 times*
Inhibitor group 2 (penicillins, cephalosporins, aminoglycosides, macrolides, lincosamides, sulfonamides, tetracyclines)	4 times	4 times

*Annual analysis frequency

Due to the intensive quality control of the product milk (see also 5. Residue testing), a 3-year audit frequency is sufficient for all milk producers who do not fall under the suspension of milk production and who achieve the intended result of the minimum score in the focus areas in the sense of the targeted improvement process (see Table 6.6). This is because the

results of raw milk testing provide ongoing information on the health and welfare of the animals, milk production and storage, feeding and the proper use of veterinary medicines.

Special controls

Within the certificate period, the certification body evaluates the information available to it in accordance with point 6.4 on a monthly basis and decide whether special inspections are to be arranged according to the following criteria:

- If the milk delivery is suspended due to an increased bacterial count of more than 100,000 per ml or an increased cell count of more than 400,000 per ml in accordance with the provisions of Annex IX, Chapter II, No. 2, Sentence 2 of Regulation (EC) No. 854/2004, the process quality at the milk producer shall be checked outside the audit cycle by means of a special inspection of the points "1. health and welfare of the animals/measures to ensure udder health" and "3. milk production and storage" of the QM criteria catalogue. This is to take place promptly after the milk delivery has been re-approved. A total score of at least 37 points must be achieved, not including bonus points. Otherwise, this special check shall be repeated within 12 months. If a knock-out criterion is not fulfilled, the review rhythm according to table 6.8 applies.
- If the milk delivery is suspended due to inhibitors according to the LFGB, the process quality at the milk producer is checked outside the audit frequency by means of an event-related special inspection of points 5.1. to 5.5. of the QM criteria catalogue. This is to take place promptly after the milk delivery has been re-approved. If one of the points 5.1. to 5.5. of the QM criteria catalogue is not met within the occasion-related special inspection, the "minimum number of points is deemed not to have been achieved" and the inspection rhythm according to table 6.8 applies.
- If the milk delivery is suspended due to maximum values being exceeded in the context of pollutant and residue tests, the process quality at the milk producer's premises shall be checked outside the audit cycle by means of an event-related special inspection of points 3.2.2., 4.1. to 4.3., 4.6. and 5.6. of the QM criteria catalogue. This is to take place promptly after the milk delivery has been re-approved. If one of the points 3.2.2., 4.1. to 4.3., 4.6. or 5.6. of the QM criteria catalogue is not met within the occasion-related special control, the "minimum score has not been reached" and the audit frequency according to table 6.8. applies.

If the certification body receives complaints from third parties, such as QM-Milch e.V., about a certified Milk Producer, the certification body examines whether there are compelling reasons for a special control. In this case, the immediate flow of information to QM-Milch e.V. must be ensured. The certification body can arrange an unannounced, case-by-case special control at any time. The certification body is also obliged to carry out a special control immediately at the instigation of QM-Milch e.V.. After evaluating the results of the special control, the certification body makes a decision on a possible withdrawal of the certificate. The certification body reports incidents and crises immediately to the scheme owner QM-Milch e.V.. The certification body supports QM-Milch e.V. in dealing with and clarifying incidents and crises.

6.7. Evaluation of the control result

If the milk producer achieves the required minimum number of points in the audit and all knock-out criteria are met at the same time, the QM audit is considered to have been passed.

If the required minimum number of points is not achieved in the QM audit or if a knock-out criterion is not met, the audit is initially deemed to have been failed. The milk producer is requested to remedy the deficiencies found. A follow-up audit takes place within one month if the minimum number of points is not achieved or if a knock-out criterion is not met:

Case a) In the case of a follow-up audit due to a failed knock-out criterion, all criteria including the failed knock-out criterion are audited at the farm, unless it is a criterion of the farm documentation 2.1, 4.2, 5.1. If the company does not pass a k.o. criterion or does not achieve the required minimum number of points in the follow-up inspection, the QM follow-up inspection is also failed in the case of a follow-up inspection due to a k.o. criterion not achieved in the regular audit.

Case b) If the milk producer again fails to achieve the minimum score at the follow-up inspection because he did not achieve the minimum score at the regular audit, there will be a second follow-up inspection after one month, which must be passed in order to pass the QM audit.

The procedure can be seen in Table 6.8 below.

If a k.o. criterion is not met or the minimum number of points is not achieved in special audits according to 6.6, the review frequency according to Table 6.8 applies.

Any follow-up inspections to the audit do not extend the original audit frequency.

The procedure for failing special controls is described in point 6.6.

In the case of clear and serious violations of legal provisions such as Regulation 852/2004/EC, Regulation 853/2004/EC, Animal Welfare Law, Animal Protection Keeping of Production Animals Order, etc., the auditors must terminate the audit as failed. In these cases, the auditors must document the deficiencies that led to the termination of the audit in writing. If it is not possible for the auditors to make a final assessment of the existence of a possible legal violation on site, the auditors immediately inform the personnel authorised to make decisions in the certification body.

Table: 6.8: Procedure in case of non-compliance with a knock-out criterion or the minimum number of points in the audit

K.o. criterion not met during regular audit	Follow-up within one month
K.o. criterion or minimum score not reached at follow-up inspection	QM-Milch failed/certificate withdrawn
Minimum score not achieved in the regular audit	Follow-up within one month
Minimum score not reached at follow-up inspection	2nd follow-up within another month
Minimum score not reached at 2nd follow-up inspection	QM-Milch failed/certificate withdrawn

Following the audit, the auditor writes a control report. This must be countersigned by the milk producer.

7. Issuing of certificates

After passing the QM audit, the milk producer is issued a certificate by the certification body. Certificates are valid for a period of 18 months or three years from the date of the audit. The basis for this is the result of the audit including the evaluation (minimum score achieved) in the focus areas. In the event of suspensions of milk deliveries triggering special controls according to chapter 6.6 during the certificate period, the certification body has to withdraw the certificate. For the certificate to be issued again, the special controls laid down in section 6.6 must be passed. Passing the special audit does not extend the individual audit frequency. The regular follow-up audit shall be carried out in a way that a follow-up certification can take place in time. Follow-up audits can be scheduled three months before the expiry of the certificate period or three months (grace period) after the expiry of the certificate period. However, certification must take place by the end of the grace period at the latest. If the milk producer makes a justified request, a later audit can be authorised by the certification body due to

particular farm-related conditions, e.g. an emergency situation, disease. However, the subsequent validity period is calculated from the end of the previous certificate's expiration date.

If the QM follow-up audit or required follow-up inspections are not passed, the certification body has to withdraw the certificate (see Table 6.8).

As set out in section 6.6, in the event of special audits related to an individual case following serious infringement or during detected serious, legal infringements, the certification body can immediately decide to withdraw the certificate, deviating from the regular certificate validity period

- Annexes :
- I QM criteria catalogue
 - II QM manual for milk producers

Appendix I: QM-Standard Criteria Catalogue

valid from

Points: 0 = not met; 1 = met; 2 = bonus point		Focus areas / score			
		animal welfare	dairy hygiene	operational environment	
1. Animal health and welfare					
1.1 k.o.	The herd is officially free from tuberculosis, brucellosis and leucosis bovina.				
	0	no, officially blocked for milk collection			
	1	no positive result in the regular official controls or able to deliver			
1.2 k.o.	Cows from which milk is obtained as food show no signs of contagious diseases transmissible to humans through the milk.				
	0	Not met			
	1	Met / no clinical signs of diseases such as e.g. salmonellosis, listeriosis, campylobacteriosis			
2	veterinary care contract is available				
1.3 k.o.	Cows from which milk is obtained as food do not show any recognisable signs of disorder of the general state of health and do not suffer from diseases of the genital organs with discharge, gastrointestinal diseases with diarrhoea and fever or any recognisable inflammation of the udder or the skin of the udder.				
	0	Not met			
	1	Met			
1.4	Diseased animals are separated from the herd.				
	0	Not met			
	1	Met			
1.5 k.o.	Cows from which milk is obtained as food do not have wounds on the udder that could contaminate the milk.				
	0	Not met			
	1	Met / Cows with wounds on the udder are milked separately, the milk is not delivered			
1.6	Hoof care is carried out as needed and at least once a year		1	0	0
	0	Not met			
	1	Met / if necessary, an external hoof trimmer is used			
1.7 k.o.	On-farm inspections of the dairy herd are carried out daily.				
	0	Not met			
	1	Met			
1.8	The cows are in a clean condition.		1	1	1
	0	Not met			
	1	Met			
1.9	The areas to lie down are clean and dry / the walking areas are clean as far as possible.		1	1	1
	0	Not met			
	1	Met			
1.10 k.o.	There is sufficient space for the cows to lie down.				
	0	Not met			
	1	Met			
1.11	Exercise or access to pasture should be possible.				
	0	Not met / all-year-round tie-stall			
	1	Met / free stall; Met / all-year-round tie-stall + exercise yard and/or occasional access to pasture			
2	free stall + pasture and/or exercise yard available				
1.12	Drinking water supply is in order, drinking troughs are sufficient and clean.		1	0	0
	0	Not met			
	1	Met / all-year-round tie-stall: self-watering at each place; free stall: sufficient watering possibility available; Water inflow is sufficient; watering troughs are well cleaned			
1.13	Stable climate: The air conditions are sufficient.		1	0	0
	0	Not met			
	1	Met / no signs of insufficient air conditions			
2	Optimum air conditions due to large-area supply air openings (e.g. roller blinds, spaceboards)				
1.14	Stable climate: The lighting conditions are sufficient.		1	0	0

	0	Not met			
	1	Met			
1.15	A separate calving area is available, clean and easy to clean.		1	0	0
	0	Not met			
	1	Met			
1.16	Appropriate measures shall be implemented to determine the pregnancy status of inseminated cattle.				
	0	not fulfilled / no measures and documentation on artificial insemination and pregnancy in the herd			
	1	fulfilled / appropriate measures are arranged to determine the pregnancy status			
1.17	The general calf husbandry is good, the calves are properly housed and in good condition. (for calves of the first 14 days)		1	0	0
	0	Not met			
	1	Met			
1.18 k.o.	Disbudding of calves under six weeks of age (sclerotisation of the horn buds) takes place using pain-reducing measures (use of painkillers, sedation if indicated).				
	0	Not met			
	1	Met / or the animal is genetically hornless			
1.19	Disease and illness prevention: measures are taken to prevent the introduction and spread of diseases and epidemics - housing of the animals				
	0	Not met			
	1	Met			
1.20	Disease and illness prevention: measures are taken to prevent the introduction and spread of diseases and epidemics - access to the farm and livestock				
	0	Not met			
	1	Met / company-owned protective clothing for persons outside the company is available: Boots, overalls (or disposable shoes, disposable clothing)			
	2	Additional changing and washing facilities available and direct access of the driver of the milk collection truck to the milk tank room from the outside is possible.			
1.21	The barn must be marked with a sign "Dairy herd - no entry for unauthorised persons", "Valuable livestock" or similar.				
	0	Not met			
	1	Met			
1.22	In the event of a power failure, an emergency generator is available in the barn or it must be proven that it can be available in a sufficiently short time.				
	0	Not met			
	1	Met			
1.23	The company has taken appropriate precautions in case of fire.				
	0	Not met			
	1	Met			
1.24	Carcass storage covered until collection by the rendering plant.		0	0	1
	0	Not met			
	1	Met			
1.25	There are no discernible deficiencies due to husbandry.		1	0	1
	0	Not met			
	1	Met / technopathies under 5% of the cows			
Measures to ensure udder health					
1.26	Single-animal cell count examinations are carried out if necessary.				
	0	Not met			
	1	Met / cell count examination of single animals in case of suspicion			
	2	Participation in the milk yield recording or other equivalent systems and compliance with the cell count limits according to the Raw Milk Quality Ordinance.			
1.27	In suspected cases, targeted investigations are carried out.				
	0	Not met			
	1	Met / California Mastitis Test (CMT) or similarly effective test procedures			
1.28	Cows with chronic udder disease and therapy-resistant cows are selected.				
	0	Not met			
	1	Met			
1.29	Test results (from dairies, state control associations, etc.) prove that the raw milk has been tested for bacterial count, somatic cells and antibiotic residues. In case of exceedance, the milk producer shall take appropriate measures to remedy the situation.				

	0	Not met			
	1	Met			
1.30 k.o.	If teat baths or sprays with biocidal effect are used, the use must not contravene regulation (EU) 528/2012.				
	0	Not met			
	1	Met			
1.31	Measures for efficient, antibiotic-reduced treatment are implemented.				
	0	Not met			
	1	Met / veterinary consultations and treatments for udder health are carried out			
	2	Documentation available that pathogens are detected and, if necessary resistance tests are carried out			
2. identification of the animals and herd register					
2.1 k.o.	According to the VVVO, the herd register is kept, the animals are identified and the changes in the herd are reported.				
	0	Not met			
	1	Met			
3. Milk production and storage					
3.1 Milking parlour or tethered stall (rooms in which cows are milked)					
3.1.1	Milking parlour and/or milking area is located and constructed in a way that the risk of milk contamination is limited.				
	0	Not met			
	1	Met			
3.1.2	Wall surfaces, floors, fixtures, doors and coverings are in a clean condition and are easy to clean and disinfect. Surfaces of equipment and objects that come into contact with milk are in a clean condition and are made of corrosion-resistant, non-toxic material that is smooth, easy to clean, disinfect and properly maintained.				
	0	Not met			
	1	Met / walls and floors are tiled or comparably specially treated (e.g. painted with wipe-proof paint) and are well cleaned. Facilities and equipment have smooth, non-rusting surfaces and are well cleaned. Tie-stall: Floor space is clean			
3.1.3	A drain for the discharge of waste water is available.		0	1	0
	0	Not met			
	1	Met / Tie-stall: Grating or manure trough with manure drainage and regular manure removal available; Milking parlour: drain and spraying equipment available			
3.1.4	The milking parlour (or tie-stall) is sufficiently lit and ventilated.				
	0	Not met			
	1	Met / without effort pre-milking test is possible, adjustable ventilation (also possible via sufficient window area)			
3.1.5	The milking parlour (or tie-stall) has a suitable and sufficient water supply of drinking quality.		0	1	0
	0	Not met			
	1	Met / running water available (drinking water quality is ensured)			
3.2 Milking system, cluster, tank					
3.2.1	The milking system is regularly maintained.		1	1	0
	0	Not met			
	1	Met / generally good maintenance condition, e.g. pump; milking liners indicate regular replacement (approx. 750 operating hours or 1,500 for silicone) of wearing parts.			
	2	In addition to the regular replacement of wearing parts, a protocol/test report of the milking system inspection according to DIN is available (not older than 1 year, milking system inspection or customer service).			
3.2.2	The equipment and objects are cleaned, disinfected and rinsed with water of drinking quality after use.		0	1	0
	0	Not met			
	1	Met / rinsing equipment available; regular cleaning and disinfection with DLG, DVG or according to EN 1276 approved / tested agents; sufficient post-rinsing			
	2	monthly control and documentation of cleaning and disinfection (e.g. temperature, concentration, time) or a safety device is in place to prevent cleaning liquid from entering the tank.			

3.3 Milking personnel, milking work, handling the milk					
3.3.1	Milking personnel wear clean, washable work clothes during milking. Milking personnel clean their hands and forearms before milking and repeat this if necessary.				
	0	Not met			
	1	Met			
3.3.2	The udder must be clean at the beginning of milking.		1	1	0
	0	Not met			
	1	Met / clean udder cloths available and used			
3.3.3 k.o.	The first streams of milk from each teat are milked separately in order to check that the milk from each animal is in an impeccable condition by examining its appearance (pre-milking check).				
	0	Not met			
	1	Met			
3.3.4 k.o.	Cows that do produce milk which is not in an impeccable condition, are milked separately and their milk is not supplied for human consumption.				
	0	Not met			
	1	Met			
3.4 Milk tank room					
3.4.1	The access road is paved and clean and the loading zone for the milk collection truck is paved and clean.		0	1	1
	0	Not met			
	1	Met			
3.4.2	The extraction point can be reached with a hose of maximum 6 m length.				
	0	Not met			
	1	Met / operational extraction line up to the extraction point must be integrated into the regular cleaning process			
3.4.3	The milk tank room is a closed room, sufficiently separated from the barn, lockable and located in a way that the milk is not adversely affected. It is protected against vermin, animals of all kinds are kept away.		0	1	0
	0	Not met			
	1	Met / structurally separated from stable and manure areas. Lockable door to the stable permissible			
3.4.4 k.o.	The milk is immediately brought to a temperature of not more than + 8 °C if it is collected daily. If it is not collected daily, it needs to be cooled to, at least, + 6 °C.				
	0	Not met			
	1	Met / cooling available (direct evaporator, ice water, heat exchanger). Cooling temperature set correctly.			
3.4.5	The milk tank room is free of objects that are not intended for this purpose; cleaning and disinfection equipment and agents are stored in a separate room or cabinet. This does not apply to agents that are in use.		0	1	1
	0	Not met			
	1	Met			
3.4.6 k.o.	After milking, the milk is transported to a clean milk tank room. This room is cleaned and easy to disinfect; there are sufficient facilities for draining off waste water.		0	1	1
	0	Not met			
	1	Met / floor and walls are tiled or comparable specially treated and well cleaned. Drainage available			
3.4.7	The milk tank room is sufficiently illuminated and ventilated.				
	0	Not met			
	1	Met/ Sufficiently illuminated. No unpleasant odour perceptible. At least one ventilation opening/window present.			
3.4.8	The milk tank room has an adequate supply of drinking water.		0	1	0
	0	Not met			
	1	Met / running water available (drinking water quality is ensured)			
4. Feed / Feeding					
4.1 k.o.	Milk producers may only use those purchased feed (compound and straight feed) from producers and traders who are subject to an agreement, based on the feed agreement. Only feed that is included in the "Positivliste für Einzelfuttermittel" may be used.				
	0	Not met			
	1	Met			
4.2 k.o.	Each delivery of feed shall be documented by the milk producer by means of delivery notes, specified invoices or other evidence. The documents contain				

	information on the time of delivery as well as on the type and quantity of feed. The address of the supplier is also shown. This also applies to the purchase of feed produced on farms. The documents must be kept for five years.			
	0 Not met			
	1 Met			
4.3	The quality of the feed in the trough is good (e.g. no mold, no secondary fermentation, no old feed). Troughs and technical equipment (e.g. feed presentation systems) do not show any permanent sediments or contamination.	1	1	1
	0 Not met			
	1 Met			
4.4	Animal- and environment-friendly feeding is supported by feed analyses (nutrient analyses) and ration calculations.			
	0 Not met			
	1 Met			
4.5	Separate storage of feed for different animal species effectively prevents feed mixing.			
	0 Not met			
	1 Met			
4.6	The type of storage must not impair feed quality and safety.	1	1	0
	0 Not met			
	1 Met			
4.7	Rodent infestation is not recognisable or control measures are being taken.			
	0 Not met			
	1 Met			
5. Medicinal products, residues				
5.1	Records of medicines used is available.			
k.o.	0 Not met			
	1 Met			
5.2	Medicines are properly stored.			
	0 Not met			
	1 Met / medicines are stored separately in a lockable room or cabinet			
5.3	A fixed procedure (e.g. colour marking, fetlock tape, electronic milk ban) is used for good identification of all treated cows during milking.			
	0 Not met			
	1 Met			
5.4	Milk from treated cows is only delivered after the waiting period has elapsed. The use of inhibitor tests is recommended.			
k.o.	0 Not met			
	1 Met / compliance with the waiting period			
	2 Additional performance of an inhibitor test after expiry of the waiting period			
5.5	It is ensured that the milk of treated cows is discharged separately.			
k.o.	0 Not met			
	1 Met / separate containers for milking treated cows are available			
	2 Milking the treated animals as a separate group at the end			
5.6	When dairies and official bodies carry out harmful substance and residue analyses as stipulated under the regulation on contamination, the raw milk must not exceed any maximum values and there must be no resulting suspension of delivery.			
k.o.	0 Not met			
	1 Met			
5.7	Raw milk produced by animals that have not been administered any unauthorised substances according to Regulation 96/23/EC.			
k.o.	0 Not met			
	1 Met			
6. Environment				
6.1	There are no unacceptable discharges of slurry and manure into groundwater and surface water.	0	0	1
	0 Not met			
	1 Met			
6.2	A fertiliser requirement calculation required by the Fertiliser Ordinance (Dünge VO 2020) is available.			
	0 Not met			
	1 Met / fertiliser requirement calculation available			
6.3	The basic principles of plant protection law are observed.			
	0 Not met			

	1	Met / not noticed in residue monitoring			
6.4	The farm has a tidy appearance in terms of the operational environment, cleanliness and general condition.		0	0	1
	0	Not met			
	1	Met			
7. Participation in monitoring programmes (recommendation)					
7.1	Milk producers are to participate in QS antibiotics monitoring programme.				
	It is intended to make the implementation of QS antibiotics monitoring programme mandatory at a later date. The mandatory implementation will be announced to the participating farms at least 12 months in advance. The requirements are defined in the QS Guideline Antibiotics Monitoring Cattle. Antibiotics may only be prescribed and dispensed by veterinarians who are registered in the antibiotics database.				
7.2	Milk producers are to participate in the QS slaughter inspection data collection.				
	It is intended to make the implementation of the QS slaughter inspection data collection mandatory at a later date. The mandatory implementation will be announced to the participating farms at least 12 months in advance. The transfer of the results of the diagnostic data collection to the QS diagnostic database is the responsibility of the abattoir. The requirements are laid down in the Guideline Diagnostic Data in Cattle Slaughtering.				