milkmaster Code 2020

together for transparency and sustainability in milk production

Topics

Welcome

Dear milk producers and other interested parties,

With the introduction of Milkmaster in 2015, DMK was one of the first German dairy companies to introduce a sustainability programme for milk production, and this was embedded in the DMK 2020 Sustainability Strategy right from the start. With Milkmaster, we – the DMK Group and members of the DMK and DOC cooperatives – are committed to responsible, sustainable milk production, to transparency along the supply chain, and to continuous development of our operations. Since 2016, Milkmaster has been part of the milk supply regulations and is therefore obligatory for all farmers.

DOC in the Netherlands, which has been part of the DMK Group since 2016, has had a similar program for a long time with MELKkompass. The next step is now to create a uniform platform for milk producers from both cooperatives that takes regional features into account.

Sustainability is part of agricultural activity. Milkmaster was designed, with meaningful interlocking elements, to enable all farmers to become more sustainable. As the importance of sustainability in the economy and our industry has been growing steadily, the demands of politics, consumer and environmental protection organisations, trade and industry customers are also increasing. DMK's current positions are also geared towards these requirements, but at the same time take into account the entrepreneurial opportunities and freedoms of milk producers. We have been able to formulate positions on many issues such as animal welfare, animal health and climate protection. Therefore, we have also included more recent developments such as the Milk Sustainability Module in Germany and the international Dairy Sustainability Framework (DSF).

With this updated Milkmaster, we are strengthening best practices and addressing new topics. As the DMK Group, we trust in entrepreneurial freedom, because farmers know best what is good for their animals, the environment and the farm.

The Milkmaster Code has been our production code since 2015 and the foundation of the Milkmaster programme and its various building blocks. This Code shall apply from 1 January 2020 and replace the current Code. It applies to members of both cooperatives, DMK in Germany and DOC in the Netherlands, as well as non-cooperative milk producers for DMK GmbH.

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Preamble

The central issue for our farmers – a fair and stable milk price and a competitive pay-out price – is at the heart of all our activities, and DMK employees are fully committed to business success on a daily basis.

In the DMK Group, we place an extraordinarily high value on the individual entrepreneurial freedom of cooperative milk producers and the diversity of our member structure. This must be protected and supported. This will make the entire German dairy system more stable and take account of the individual circumstances of farmers. Our mission is to ensure responsible, sustainable milk production and processing. With Milkmaster, our joint initiative for milk producers for a sustainable and future-oriented development of agricultural milk production, we are fulfilling our responsibility towards people, animals and the environment. In doing so, we concentrate on four main topics: animal welfare, animal health, environment and climate protection, and economics and social affairs.

The following **basic requirements of good professional practice** apply to all milk producers and topics and so precede the explanations in the Code.

- The foundation for the production, treatment, placing on the market and transport of milk are the **applicable laws and regulations in Germany and the Netherlands as well as the relevant EU legislation**.

- DMK Group recommends that all DMK milk producers in Germany **conduct the milk performance test or an equivalent test, in which milk constituents and milk quality are recorded monthly at individual cow level**.

- All milk producers must comply with the **quality requirements of QM milk for Germany and KKM for the Netherlands**. This covers all relevant topics in the industry relating to product quality and safety, as well as various sustainability issues such as transparency about feed manufacturers and quantities purchased, as well as regular in-house inspections of husbandry conditions and checks on the health and nutritional status of the animals.

- The **Five Freedoms for animal welfare** must be respected and actively promoted by all milk producers. Those internationally recognised animal welfare guidelines include: freedom from hunger, thirst and malnutrition; freedom from discomfort; freedom from pain, injury and disease; freedom from fear and distress; freedom to express normal behaviour, e.g. through sufficient freedom of movement.

- All milk producers should comply with **international regulations such as the core labour standards of the International Labour Organisation (ILO)**, which include the right to collective bargaining, freedom of association and the prohibition of child labour, forced labour and discrimination.

- The DMK Group supports DMK milk producers in Germany in their **participation in the Milk Sustainability Module**. In this way we want to promote a common understanding in the dairy industry in Germany and help to depict the status quo using various performance indicators.

The DMK Group not only expects active commitment to sustainability from its milk producers, but also takes it seriously as a company and is committed to responsible action as part of its own sustainability strategy. Together with our business partners along the supply chain, from raw material procurement to consumption, the DMK Group is committed to ensuring that sustainability criteria are considered. We take into account the findings and strategies of key initiatives in the dairy industry, such as the Milk Sustainability Module in Germany and the international initiative Dairy Sustainability Framework (DSF), and support their objectives in line with our strategy. As the DMK Group, we are also actively involved in the further development of relevant topics within the milk sector strategy in Germany and industry activities in the Netherlands.

milkmaster

Milk Sustainability Module

The **Milk Sustainability Module** was launched in spring 2017 with the aim of testing the system in practice and developing it into an industry solution for the sustainable development of German milk production. The Milk Sustainability Module makes it possible for the first time to determine facts about the complex issue of sustainability in milk production in Germany and initiate a dialogue and process for the further development of more sustainable milk production. The Milk Sustainability Module contains a broad catalogue of criteria for the sustainability aspects of economy, ecology, social affairs and animal welfare. The pilot project was developed by the Thünen-Institut für Betriebswirtschaft together with the Projektbüro Land und Markt on behalf of QM-Milch e.V. and supported by the Federal Ministry of Food and Agriculture. Thirty-four dairies nationwide are acting as practice partners in the pilot phase.

Dairy Sustainability Framework (DSF)

The **Dairy Sustainability Framework (DSF)** is an international initiative for sustainability in the dairy industry. It aims to standardise sustainability activities in the sector globally and nationally. Behind this is the desire to contribute to a vibrant sector that is constantly getting better at producing safe and nutritious products from healthy animals while protecting natural resources and securing income.
The DSF comprises a set of criteria with indicators in 11 themes: greenhouse gas emissions, soil nutrients, waste, water, soil, biodiversity, market development, rural development, working conditions, product quality and safety, and animal welfare.

Dutch milk producers have been part of the DMK Group with DOC since 2016 and are also structured in a cooperative. In the Dutch dairy industry there has been a sector strategy in place for several years to improve sustainability in the industry. Since 2011, all Dutch dairies have been working together on the sustainability themes of climate, animal health, animal welfare, pastureland, biodiversity and the environment within the framework of the cross-sector initiative DZK (DZK = Duurzame Zuivel Keten) and have defined objectives for this purpose. DOC handles data collection for the Milkmaster programme using central systems with industry-wide data platforms. A separate code for Dutch DOC milk producers takes into account the country-specific characteristics in the context of sustainability in the Netherlands.

Animal welfare

We want to provide conditions on our farms that are good for the cows, do justice to modern animal husbandry, and support milk producers in sustainable management. Because good management is the basis for animal welfare, it influences the animal welfare more strongly than all external husbandry conditions. In addition, we want to take the social demands on animal husbandry seriously and show that today's modern agriculture respects the welfare of animals.

Stable housing systems should enable the cows to have a **good feed and water supply**, **an animal-friendly stable climate** (light and air) as well as opportunities to **enjoy social contact**.

As cows are herd animals with social ranking, sufficient space must be available for **all cows to have equal access** to feed and other facilities. **Each cow should be provided with a place to lie down and a place to eat**, in order to avoid stressful situations, especially for low-ranking animals.

Clean, dry and comfortable stable areas ensure animal wellbeing. When designing **rest areas**, cow comfort and the cleanliness of the lying areas from a food hygiene point of view are of central importance. The combination of these aspects, e.g. the bedded deep box or the bedded high box with a mattress or a rubber mattress for padding has proven to be a suitable design to meet animals' requirements for a dry, soft and clean lying area.

A **separate calving area and medical bays** with sufficient space and room for movement should be provided.

The cows should be able to **move freely** at all times. An animal-friendly housing environment for dairy cows includes stables, ideally with exercise facilities. On the other hand, tethered systems in which the animals are permanently fixed in place no longer fulfil our criteria for responsible milk production. Both cooperatives – DMK in Germany and DOC in the Netherlands – no longer accept milk producers that practice year-round tethering. DMK Group is committed to **eliminating year-round tethering** and gradually phasing out tethering for all milk producers.

It is also recommended that cows are able to move freely around the **pasture**, if operational conditions permit. The Milkmaster programme encourages the combination of an **open stall with pastureland**.

Cows must be provided with **possibilities for body and coat care**, because comfort facilities such as **cow brushes** promote wellbeing and animal health.

The growth and healthy development of calves and young animals must be supported by age-appropriate living and feeding

conditions. **Calves** should be supplied with **colostrum, then with age-appropriate feed and water. Bedded lying areas for calves** are recommended. Special attention must be paid to the **hygiene, cleanliness and health monitoring** of calves. This includes continuous observation of the animals, which should be accompanied by regular growth monitoring, e.g. based on body condition or chest circumference.

If required, **dehorning** should be carried out under anaesthesia and painkillers. Calves under six weeks old should be dehorned under painkillers and sedation, while calves over six weeks should be anaesthetised by a veterinarian. The long-term goal of the DMK Group is to keep **genetically hornless animals**.

To make the **conditions for slaughter and transport** animal-friendly, milk producers should, as far as possible, influence the transporter and slaughterhouse to minimise the necessary transport time for the animals and in particular, the calves. Transportability and the use of bedding during transport must be ensured. Pregnant cattle may only be slaughtered in justified exceptional cases (e.g. for reasons of animal welfare and animal disease control).

Animal health

Good animal health management promotes the vitality and fitness of the animals. The health of our cows is critical for the production of high-quality milk. For this reason, the early detection and prevention of diseases to protect animals has long been the focus of our company practice.

Regular self-monitoring of husbandry conditions on the farm as well as a regular inspection of the health and nutritional status of the animals is a common standard on all farms and prevents diseases. **Animal health** should be regularly recorded and evaluated using data on cow and calf mortality, lameness, joint injuries, paratuberculosis, BVD and salmonella, udder infections, cell count and vaccination.

Contributions to the **health management** of the herd include ensuring good stable hygiene and cleanliness, e.g. of lying areas, as well as preventive measures to protect against epidemics and pathogens (biosecurity). The development and implementation of a **health plan** for the herd is recommended.

As a neutral partner, the veterinarian who is in charge of stock control checks that the daily work routine complies with responsible best practice, reveals potential for improvement, and provides advice and support. The DMK Group encourages every milk producer to have a **regular, at least twice-yearly stock check-up by a veterinarian and to submit a visit protocol**.

Particular emphasis must be placed on the **regular cutting and care of all animals' hooves** by competent, trained persons. Hoof care should take place at least once a year, more if the condition of the hoof of the individual animal requires. Care measures carried out should be documented in a hoof care report for each animal. The living environment should be regularly checked for risks to hoof health.

Risk groups such as heifers, freshly calved cows, cows in the first two weeks after birth and cows at the end of lactation should be subject to **special monitoring and health care**.

In the veterinary treatment of sick animals, the use of **antibiotics and other medicinal products** must be carried out with care as and when necessary and must be monitored. Milk from animals treated with antibiotics must not be put on the market. Reducing the use of antibiotic products as much as possible is recommended. In view of increasing antibiotic resistance, DMK is also committed to promoting alternative treatment methods such as homeopathy. The use of antibiotics for udder inflammation and dry periods, prophylaxis and metaphylaxis and the doses administered must be documented. In particular, it is recommended that the prophylactic use of antibiotics in dry cows and the use of hormones for oestrus stimulation be carefully designed to meet the needs of the patient and should be avoided as far as possible. The use of drugs classified as antibiotics of last resort must be considered with the veterinarian in accordance with the high legal requirements. Homeopathy as an alternative treatment method, antibiotics and bacterial testing to avoid antibiotics of last resort should be used proactively. It is recommended that individual plans be drawn up to reduce the use of medicines and, in particular, antibiotics.

We are committed to the daily care of long-living and healthy animals; it is in

everyone's interest to promote **long lives** of animals. Long lifespans for the dairy herd should be promoted by careful **herd management and preventive, diagnostic and curative measures**.

The **mortality rate of cows and calves** should be checked and documented during the farm self-monitoring. In addition to natural deaths, animals slaughtered as a result of health problems (deaths) must be recorded. The type of dispatch (death, emergency killing, euthanasia) and the reasons for death must be recorded (e.g. lameness, mastitis, metritis). Particular emphasis should be placed on calves; the stillbirth rate and causes must be documented. We recommend considering **individual farm improvement plans** according to requirements.

The type and extent of feeding have a significant influence on the health of the animals and on the ecological balance. All animals must have **unrestricted access at all times** to high quality feed and fresh and clean water. Milk producers should provide a **well-balanced, chewable and performance-oriented feed**.

A **precisely calculated, differentiated ration design** should fully meet the different requirements of the animals. Factors such as the stage of lactation, the individual performance level and the stage of life (rearing, milk production) of the animals play an important role in this.

Nutrient analyses of the roughage components used (grass and maize silage) should be carried out on individual farms.

Environment and Climate Protection

Milk production thrives in an unspoilt environment, which is why the careful use of natural resources is of central importance for our farms. It is a constituent part of good professional practice. Climate protection is important to us, and in view of the urgency of the matter, we want you to step up our efforts here, both at the level of individual farms and in the DMK Group.

To **protect the soil** and make effective use of nutrients, **farm manure** should only be applied during the vegetation and growth period and when the area can be driven over well. Accordingly, liquid fertiliser should be spread and incorporated only if the plants require a corresponding amount of manure and if it is applied close to the ground.

Avoiding **soil compaction and erosion** protects the landscapes. Appropriate support measures such as the covering of arable land in winter, the cultivation of intermediate crops and the extension of crop rotation are recommended.

Creating and maintaining valuable ecological areas is particularly encouraged. These include e.g. flowering strips, appropriate crop rotation, beekeeping and landscape conservation elements such as field shrubs, hedges and rows of trees.

Grassland areas must be preserved and maintained, as they bind CO2 in the soil and ensure high-quality roughage. Corresponding measures for healthy and high-yield feed areas include, for example, multi-unit crop rotation to avoid monocultures, efficient fertilisation methods to reduce eutrophication, and efficient nutrient management, e.g. through precision farming.

Where possible, the **proportion of species-rich grassland** and permanent grassland should be increased or at least kept constant. Conversion from permanent grassland to arable land should be avoided where possible.

Measures to **protect biodiversity** and the use of appropriate instruments are recommended, e.g. the implementation of a biodiversity scan, the regular preparation of a biodiversity protection plan, and contractual environmental and nature conservation measures. Where possible, refuge areas should be created for ground breeders, small game and micro-organisms, e.g. through participation in voluntary agri-environmental measures.

Plant protection products are **environmentally friendly** and should only be used in acute cases of need according to the damage threshold principle. On grassland, plant protection products should only be used as needed and with special care. In addition, it is recommended to take measures to reduce the use of plant protectants, e.g. by using systems for disease and pest forecasting, or GPS applications for accurate application of fertiliser and plant protectants.

It is recommended that **greenhouse gas emissions** on the farm be measured through climate balances and that a greenhouse gas emission **reduction plan** be established.

Herd management should take into account aspects of **climate protection** and be planned accordingly. Climate-friendly herd management can be achieved, for example, by increasing lifespan (see animal health), increasing lactations, reducing the age at first calving, and reducing the use of high-performance milk feed, while at the same time increasing the roughage yield.

As **greenhouse gas emissions** in agriculture are of great importance, measures to reduce them should be sought.

This is commonly known to be contributed to by climate-friendly fertiliser management through the fermentation of liquid fertiliser in biogas plants, reducing the use of synthetic fertilisers, and increasing the proportion of pasture.

Recording energy consumption on farms is recommended in order to develop **energy-saving measures**, for example in milk production and cooling, in lighting and through the use of heat recovery systems. Measures such as an annual energy scan and the introduction of a certified energy management system are encouraged.

Many farmers **generate their own energy** through photovoltaics or fermentation of biomass and are already making a contribution to climate protection. Wherever possible, a farm's own generation activities should be continued and consideration should be given to purchasing **electricity from renewable sources**.

Careful handling of the valuable resource of water is recommended. These include, for example, efficient irrigation methods for the careful use of water resources, the economic irrigation of feed plants and efficient fertilisation to protect water resources from eutrophication.

Contributing to the protection of our environment through targeted **waste avoidance and waste separation** as well as proper disposal of the resulting rubbish is recommended.

Feed should be produced in the most responsible way possible. **Roughage** (grass and maize silage) should be cultivated to a large extent on farms themselves or cultivated or purchased regionally. **Concentrated feed**, in particular protein feed, should be grown as far as possible by farmers themselves or grown or purchased regionally. The use of certified supplementary feeds (RTRS, FEFAC, USSEC-SAPP, ISCC EU, ISCC PLUS, Pro-Terra) as well as the use of certified **GMO-free feeds** is recommended.

Economy and Social Affairs

Successful management, a fair and stable pay-out price and sustainable milk production are the basis for the future viability of farms. Milk producers are part of society and important stakeholders in their regions. Therefore, many social aspects play a role in everyday business. Many of the following points are already being practised on farms: it is therefore important to give greater recognition to farmers' achievements and to ensure transparency of activities and continuous improvement.

Using **instruments for predictive management** of the enterprises is recommended e.g. through risk analyses, instruments for risk hedging, liquidity planning and a strategic business plan. In particular, farm succession and, where necessary, generational change should be planned with foresight.

Regular comparisons of farms should be carried out and **data on transparency** in the milk value chain should be provided.

The existing high level of training and expertise that farmers have forms the basis for the success of the farm and is passed on over generations. **Continuous interdisciplinary training** for all employees is of great importance for the success of the company. In particular, farm managers should always keep up-to-date with agricultural and business knowledge.

Occupational health and safety should be guaranteed for all farm workers, including seasonal and unskilled workers. It is recommended to draw up a plan for the improvement of occupational health and safety. This should be updated every three years and include a risk analysis for occupational accidents and working conditions.

Appropriate remuneration should be ensured for all employees, including seasonal and unskilled workers. For this to be achieved for both employees and the self-employed entrepreneur, a stable and competitive milk price must be achieved on the market.

Surveying **job satisfaction** in the company on a regular basis is recommended.

The **provision of training places and internships** on farms is already widely practiced and encouraged due to its high social importance.

Farms should see themselves as an **active part of their local environment and as good neighbours**. Milk producers should be open and proactive in dealing with the impact of their business activities on the environment (e.g. noise, odours, consequences of farm expansion) and expectations.

The DMK Group encourages and supports businesses in **opening their farms to visitors** and other methods of **increasing interest in agricultural production**. Examples of this are leisure activities, educational offers, holiday operations or the operation of a farm shop as well as a homepage.

In addition, the **commitment of farms to social concerns in the surrounding area**, e.g. for social, cultural or sporting activities in the region, is valuable and important. Wherever possible, data and information should be provided for the DMK Group.

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