

Quality, Taste, Nutrition, Product Attractiveness

Government/Industry integrated quality assurance framework

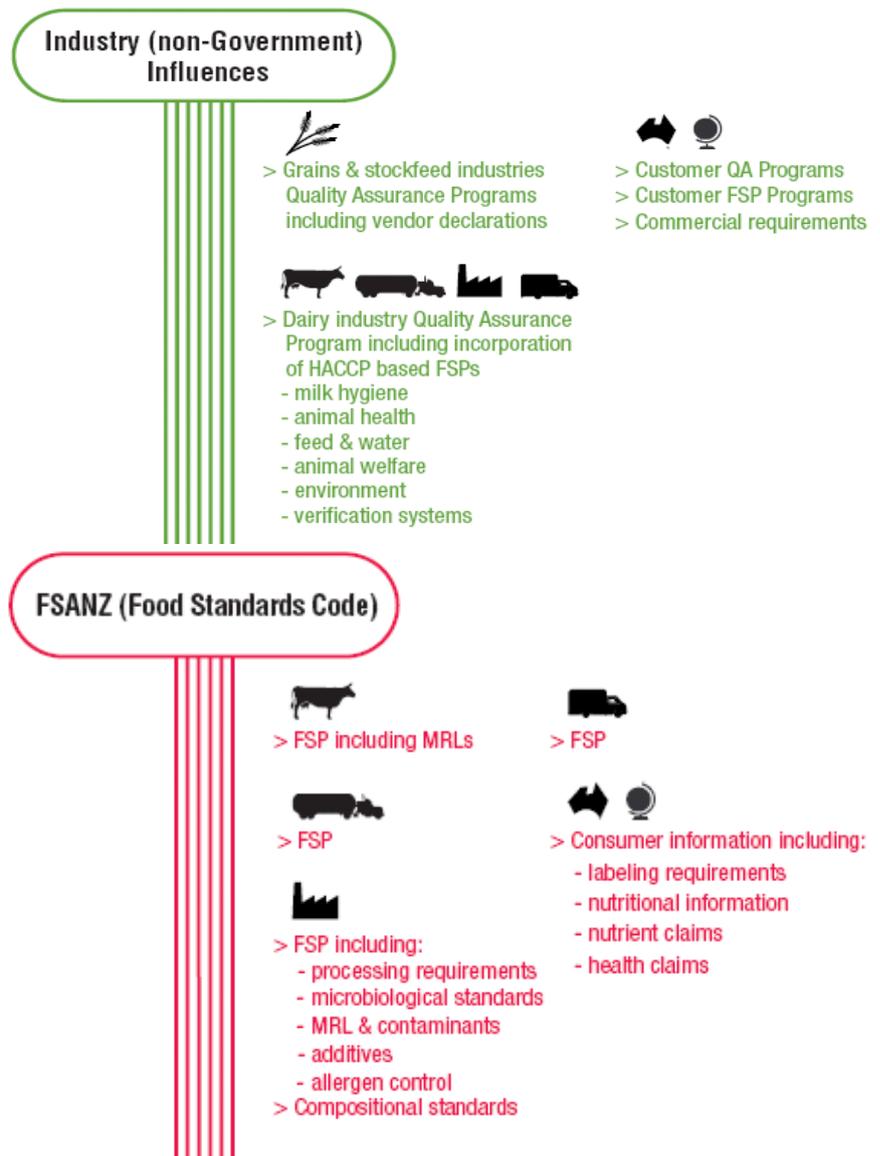
At MilkoPet® we are committed to delivering the highest quality, tastiest milk possible for Dogs, enhanced by nutritional formulations that benefit their life stage. Our state of the art UHT dairy factory applies world standard quality assurance disciplines to meet our commitment, but our total quality program goes far beyond our factory disciplines, it encompasses a broad government/industry integrated program at every stage of our products life.

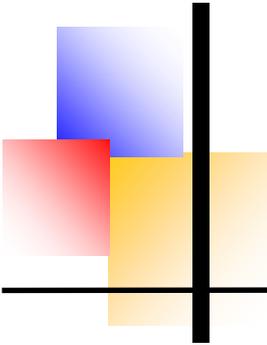
This particular Product Information Bulletin (number 2) will outline that broad integrated quality assurance program which is of the highest world standard, and also expose certain rare but naturally occurring product behaviour characteristics, that are not quality related, but are embraced by our commitment to always deliver a product of highest world standard therefore are important to understand. Such behaviour characteristics include age gelation, fat separation and “flat/sour” where even though the product **remains sterile and safe**, product attractiveness, and sometimes, mouth-feel are compromised.

Integrated Approach to quality assurance

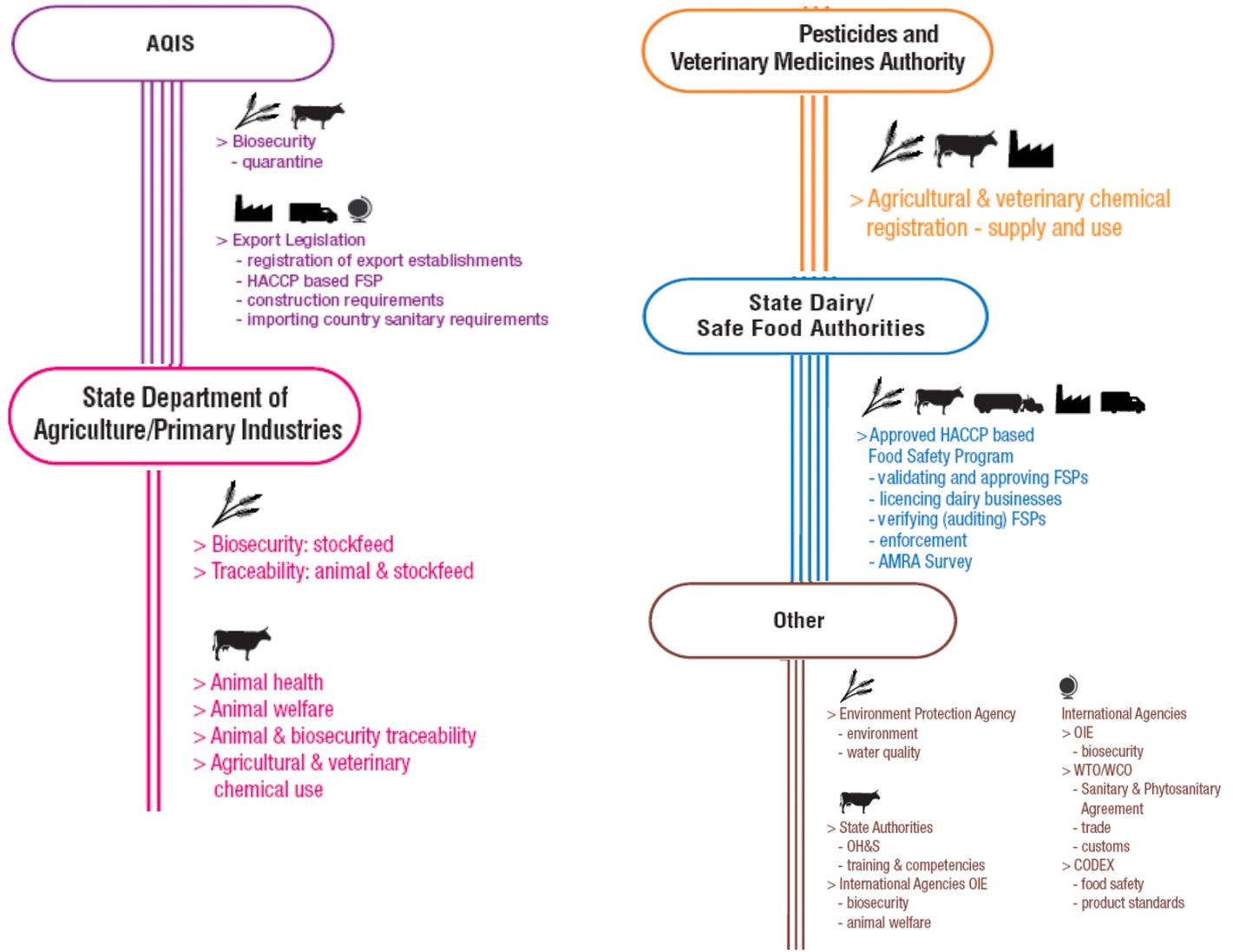
MilkoPet® Milk is farmed in the worlds largest dairy product global export region where the economic importance of dairy product growth is significant. To protect this important industry, a comprehensive, integrated, quality assurance system is essential. New technologies in farm management practice underpins long term competitiveness, including soil testing, fodder conservation, supplementary feeding, improved animal genetics, artificial insemination programs, use of new milking technologies, state of the art milk

processing, continued best practice in product logistics; and computers to record and monitor herd performance, and performance against quality standards in all other areas; are all part of this integrated system that brings MilkoPet® milk to the market. The following charts outline the wide range of quality assurance programs in this integrated system, all aimed at achieving our commitment to deliver the highest quality product possible for your dog.





Regulatory framework of the integrated quality assurance program (icons indicate where regulations impact during our products journey and each regulation is shown near those icons.)

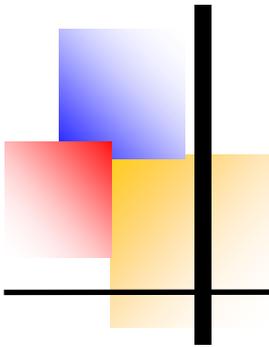


Legend

AMRA = Milk Residue Analysis
 AQIS = Quarantine and Inspection Service
 CODEX = Codex Alimentarius Commission
 FSANZ = Food Standards Australia New Zealand
 FSP = Food Safety Program

HACCP = Hazard Analysis and Critical Control Points
 MRL = Maximum Residue Limits
 OIE = World Animal Health Organisation
 WCO = World Customs Organisation
 WTO = World Trade Organisation





Product Taste

MilkoPet® product development specialists emphasise the importance of product taste to ensure dogs enjoy the experience of drinking MilkoPet® milks. Creamy mouth feel enhances this experience and is achieved through a combination of using the freshest milk possible, world leading UHT milk processing technology, and nutritionally well balanced formulations. We know when dogs enjoy the taste experience of MilkoPet® milks, they will want to repeat that experience time after time, making it easy to deliver our milks nutritional benefits on every occasion.

Product Nutrition

MilkoPet® milk is formulated by our leading Veterinary small animal nutrition specialist who understands that as a food supplement, MilkoPet® milks must be nutritionally well balanced and easily digestible. In this process we have developed milk formulations to suit the life stage of dogs i.e. Puppy, Adult dog and Less Active Dogs.

Product Attractiveness

Characteristics that may affect milk attractiveness and mouthfeel

Our dog milk sales history dates back to 1995 and our range of natural milk products has become a favourite for many pets at various life stages. MilkoPet® Milk is carefully formulated to provide nutritional benefit to dogs but we believe its popularity is driven mainly by high quality and good taste.

Pack Integrity

Like any food product it is essential that the integrity of our environmentally friendly, food safe packaging is not compromised in the process of delivering our milk to dog owners. All care is taken at each stage of shipment and storage to maintain the products integrity. Should a pack be damaged in such a way that bacteria can enter, like any other food product, the product should not be consumed; under those circumstances we would expect the characteristic reaction to such damage would be evidenced by the pack expanding and rendering the milk taste and smell such that dogs will not consume it anyway. We encourage MilkoPet® dog owners to report such damage should it ever occur so we can understand and remedy the cause of damage within the distribution system to avoid reoccurrence and inconvenience.

Fat Separation/ Age Gelation/Flat sour

On the subject of product attractiveness and mouthfeel, the **human UHT milk industry** worldwide is aware that **on rare occasions** UHT milk can experience age gelation, fat separation or flat sour characteristics. It is important to understand that in each case, milk remains sterile and safe, and in the case of fat separation, dogs may still be quite happy to consume it.

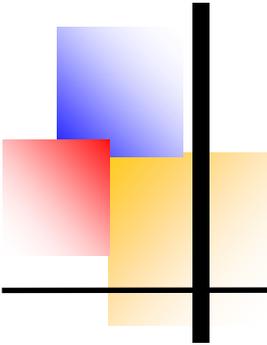
The best example of fat separation is when milk is taken from a cow and with no further processing, left to sit in a glass. Gradually the milk fat separates from liquid and rises to the top of the glass. To overcome this natural separation tendency, commercially processed milk is homogenized to reduce the size of the fat globules, which consequently increases their density in relation to that of the remaining milk matrix. With this increased

density the fat globules remain evenly dispersed throughout the milk product. An emulsifier can be used to hold fat molecules in equilibrium throughout the liquid for the life of the product.

Conversely, many commercial dairy factories throughout the world actually produce milk for humans without homogenization because some consumers prefer this natural fat separated milk appearance. MilkoPet® fresh pet milk is always homogenised during production.

Even with homogenisation it is still possible for further fat separation to occur, exposure to high temperatures (25°C>) (77°F)for extended periods of storage, or extreme temperatures for shorter times, can influence the occurrence of fat separation, by breaking down the emulsion. Despite this, product remains sterile and safe. Fat separation can also be influenced if the homogenization process is not effective.

The process of fat separation as seen in a laboratory in it's earliest stage, can be seen as a very slight cream swirling on the milk surface, however at home if the pack is shaken prior to opening as is recommended, such creaming is unlikely to be evident. As separation proceeds in a pack, fat will form a film on the underside of the pack top then gradually thicken. Particles of fat can drop back into the milk and float, affecting the products attractiveness but not it's safety. Another affect on product attractiveness, age gelation, is evident when the pack is opened ,a gel-like (or yoghurt) accumulation of fat is present throughout. The mechanism of age gelation is generally accepted to primarily involve the action of certain enzymes, which survive the high temperatures of the UHT process, on milk protein. The affect at a micro level is that the proteins change their alignment relative to each other and form networks within the milk matrix. This appears at a macro level as a thickening of the milk (the process is called proteolysis).



Product Bulletin Number 2 Issue 1



The problem of age gelation is unpredictable as the presence of these surviving enzymes is rare but even when they are present they **may also have no affect on milk gelation.**

Further, age gelation does not always occur after a specific degree of proteolysis. Rather there seems to be a minimum level of proteolysis below which gelation will not occur. Above this level, gelation occurs only in some samples. Like fat separations, product attractiveness is affected but the product remains sterile and safe.

Flat sour is an industry term that describes another rare bacteria related characteristic that although harmless, affects the products attractiveness.

MilkoPet® UHT milk is shipped in environmentally friendly packs that are designed specifically for UHT products and are used throughout the world by leading UHT manufacturers. These packs are constructed of laminated paper board that maintain the product in an aseptic condition throughout the products life.

During the production process, should the seal of these packs be compromised it is possible that bacteria could enter the pack. For this reason all packs are held in isolation for a 10 day period after production in a controlled temperature environment to perform further tests on milk quality and pack integrity. On rare occasions where gas producing bacteria is discovered or milk characteristics do not meet set standards, that product is discarded. There are also some non gas producing bacteria (e.g those bacteria used to

culture yogurt) which can promote a yogurt like thickened product with slight acid smell. These bacteria are non pathogenic but the products attractiveness is compromised as it is with fat separation and age gelation

Over a lifetime of consuming MilkoPet® milk, customers may never experience



evidence of any of these characteristics in fact since 1995 the incidence of these characteristics as a share of total consumption is quite rare but at MilkoPet® we are committed to customer satisfaction therefore want to keep our customers informed and aware of our focus on this matter of product attractiveness at all times.

MilkoPet® delivering quality and satisfaction

At MilkoPet® we do not keep stock of our milk products in our factory. Every order is manufactured for immediate shipment from milk received from farms within 24 hours of milking. The highest standards of milk evaluation and UHT processing are applied to produce an appetizing product in hermetically sealed packs, full of balanced nutrition and great taste, with long shelf life for customer convenience. Care is taken in packaging design and pallet loading to ensure our product is delivered in the best condition possible for total customer satisfaction. We recommend normal food grade dry goods storage conditions of less than 25° C (77°F)for the storage life of the product but once opened our product should be stored in a refrigerator at 4°C (39.2° F) and can be consumed for up to 7 days under those conditions.

Every batch of MilkoPet® milk produced for our customers goes through a strict incubation period in our factory at controlled temperatures to ensure the integrity of that product prior to delivery. Samples of every order are retained in our factory library to ensure we are aware of product quality throughout it's life.

We believe our integrated quality assurance program establishes a new benchmark in world quality standards, but at MilkoPet® we will always seek further improvements to continue the highest level of customer satisfaction.



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