Seamons, Colleen

From: Kyle Grimshaw-Jones [kyle@winshop.com.au]
Sent: Tuesday, 16 September 2008 11:43 PM
To: submissions
Subject: Submission - proposal P1007
Attachments: FSANZ raw milk submission 4 Sep 08.doc; Comments on the Regulatory Impact Statement.doc; Raw Milk Alliance Letter to SAFE Food Qld.doc; 080916 - draft milk standard - DD2.pdf

To the Standards Management Officer:

SUBMISSION TO FSANZ DATE: 16 SEP, 2008

TIME: near midnight!

in response to and concerning:

"6 August 2008

PROPOSAL P1007

- **PRIMARY PRODUCTION & PROCESSING REQUIREMENTS FOR RAW MILK PRODUCTS (Australia Only)**

DISCUSSION PAPER"

by Kyle Grimshaw-Jones

B.App.Sc.(TCM), Dip.App.Sc.(Nat), R.T., N.D., Cert IV Div Ther (Comm Wk)

kyle@winshop.com.au

P.O.Box 494, Oxenford, Qld 4210

+61 7 55 332 869

Please find attached:

The full document titled above that is the main submission document which makes reference to the other attachments - filename - FSANZ raw milk submission 4 Sep08.doc. (also pasted below into the body of this email)

A document I authored "Comments on the Regulatory Impact Statement (RIS) (Food Safety Scheme for Dairy Produce) August 2002" which I submitted to SAFE Food Qld. (Several excerpts from this document are throughout this submission.) - filename - Comments on the Regulatory Impact Statement.doc

Please also find attached a letter I once communicated to SAFE food that outlines the desires of The Real Milk Alliance, drafted by myself on the RMA's behalf. It outlines important aspects of soil, pasture, feed, cow, herd, milk, and consumer health that are often overlooked. - filename - Raw Milk Alliance Letter to SAFE Food Qld.doc

Please find attached a copy of a raw milk production code that I would be willing to accept and endorse as a reasonable standard for raw bovine milk production. Moral rights to this document belong to Tim Wishart, Kenmore, Brisbane, and it is used with his consent. - filename - 080916 - draft milk standard - DD2.pdf

Please find the main document pasted below within the body of this email also.

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I would like to begin by complimenting FSANZ on responding to consumer demand in the area of raw milk and raw milk products.

I am trained as a Naturopathic Physician, and Natural Therapist. My training encompasses the areas of Nutrition, Immunity, and Microbiology.

I gave a rather detailed submission to SAFE Food Qld a few years ago in response to their Regulatory Impact Statement with respect to upcoming changes in food legislation including dairy products. (Several excerpts from this document are included below, and the original document is attached. It was written to be read alongside the RIS itself but nevertheless contains valuable and important information worthy of consideration by FSANZ.) I also met with the chief advisors to the minister for primary industries at the Safe Food Offices, along with other interested and involved parties, including the then head of

the soon-to-be-obsolete Qld Dairy Authority. I submitted a document on behalf of the Raw Milk Alliance (please find attached also), and had a further meeting with representatives of Safe Food Qld (Phil Pond and Barbara Wilson), as well as several telephone discussions. I have liaised with several dairy farmers in connection with this issue, travelled to their farms, and discussed the issues of raw milk production. I have endeavoured to obtain an understanding of raw milk production systems used overseas (e.g. McAfee in the US), and to look at raw milk standards that exist overseas where consumers are able to obtain raw milk. I was privileged to be in the position of beginning the first local chapter of the Weston A Price foundation in Australia (www.westonaprice.org).

I submitted a petition to parliament with some several hundred to thousand signatures (from memory) indicating the significant demand for raw milk in Qld. It can be found at the hyperlink below. (I still have copies if you want me to count the signatures.)

http://www.parliament.qld.gov.au/petitions/responses/6382.pdf

This seemed necessary, as SAFE food representatives at that time seemed to be telling people who enquired on the phone that they had no evidence for any significant consumer demand for raw bovine milk or its products in Qld.

Because of time constraints, I will probably be unable to give the level of response that I would like to in this submission. It requires significant time, commitment, and sometimes money, to obtain solid reference material from science journals, and to combine it all into a submission.

A similar problem is run into by busy dairy farmers who are tending to the health of their herds, and have limited time for writing submissions. Small-scale underfunded locally supplying farmers are not in an easy position to draft their own standards, and provide the scientific backing and referencing that FSANZ may require. For thousands of years humans have used raw milk products. The burden of proof has been shifted to a point where the 'little fellas' on the farms are expected to demonstrate a certain capacity to produce raw milk (both in print and practice) according to a HACCP protocol, with apparently little help from the government sector. This seems to give an unfair advantage to large-scale producers of pasteurised dairy products, who have larger profits and can direct them to paying people to show up at meetings, sit on boards, do research, liaise with government officials, and write submissions. If homegrown local small-scale producers tried to do all that there would be nobody to mend the fences and milk the cows!

In addition, potentially hefty costs in the multiples of tens of thousands of dollars that may be asked for just to have a submission considered are discriminatory and exclusionary to small-scale producers.

I want to be able to buy raw milk products (bovine, caprine, and other) produced legally to a reasonable required standard for human consumption.

I have said all along that the lack of a proper legalised and policed standard for raw milk is itself a danger to raw milk consumers, who are then forced to shop outside of the normal supply chains with potentially unregulated unstandardised production systems affecting final product quality.

Having said that, it seems that the waited-for epidemic caused by raw milk consumption in South East Queensland has failed to arrive. After several years of thousands of litres of raw milk being purchased (and consumed) by hundreds/thousands of consumers, to the extent that it sells out regularly and becomes unobtainable 'til next week (the farmers can't keep up the supply to fill the consumer demand), we don't seem to see any verifiable reports of any significant negative health impact on the local population. That's one hell of a pilot study! Albeit unregulated, undocumented, and unpoliced. Perhaps local government could co-operate with local producers of raw milk and co-operatively arrive at a workable standard that appears to be quite attainable in practice at least, by the lack of front-page newspaper stories about the horrors of hundreds of previously well people who were killed stone-dead by raw milk, and not to mention how badly these deaths have affected foreign markets for Australian exported pasteurised dairy products.

Please receive this as playful well-meant humour. The fact is, many people have consumed raw milk in south east Queensland for several years, and data on negative health effects appears unobtainable, unconfirmable and miniscule, and there has been no negative impact on foreign markets for Australian dairy products that I have been able to find report of. Clearly a functional standard is possible – now if we could all get on with the paperwork, we could get on with using raw milk in our kitchens!

(Additionally, although I've followed it much less closely, I'm informed a large number of consumers of raw milk exist now in Victoria, NSW (http://nourishedmagazine.com.au/) and also SA and WA. Similarly, there appears to be a relative absence of negative reports, and a considerable collection of positive reports about raw milk.)

A small-scale pilot study with signed-off legal indemnities of 'proceeding under own responsibility and at own risk' by consumers is possible. Understandably, nobody wants to be liable if someone feels hurt by raw milk. But the idea is to make a standard that minimises that possibility. The immuno-compromised (young, elderly, AIDS, pregnant, and those on immuno-suppressive medications like chemotherapy and corticosteroids, etc.) may not have become that way if they'd used raw milk products all along – but if they aren't already used to them, then the importance of not giving such parties a large dose of unfriendly organisms is obviously important. This reinforces the need for a standard of production that is consistent and safe within reasonable parameters.

I personally consume raw milk products based on an understanding of the importance of fermented foods and raw animal foods in traditional diets and human health.

I personally consume kefir made from raw milk, often on a daily basis, either in smoothies and/or on my breakfasts, and/or as deserts (yummy with honey!). I also have consumed 'sumik' (soured (lacto-fermented) raw milk from it's own microflora), and make and/or consume my own cheeses, soft and hard, made from soured raw milk. In the process of making the cheeses from fermented raw milk and kefir, cultured whey is produced, which I use for:

- souring grain and bean mixtures before I cook them (e.g.porridge),
- making drinks from fermented beetroot juice (beet kvass – traditional Russian beverage),
- fermenting mashed sweet potato or taro
- making lacto-fermented beverages (e.g. Traditional Small beer)
- making cultures to produce sourdough bread and flatbread

- making sauerkrauts (e.g. german/russian/korean/south american varieties – all traditional foods)
- and making several other types of traditional and experimental lacto-fermented foods/beverages.

I have a number of friends who do likewise, and we all would feel the absence of raw milk if we could not obtain it for these types of purposes.

Where possible I like to buy raw cheeses, which I wished were easier to obtain and more widely available, as well as locally produced here in Australia. It seems that we lag behind other countries in our lack of a homegrown raw cheese industry.

I used to be able to obtain raw butter, but now I have to make my own if I want it from raw cream, which is also a bit difficult to obtain on occasions. I used to be able to obtain raw cream, which I would allow to spontaneously self-culture/sour, and then use as is or churn to make cultured butter and buttermilk. This is now also difficult to obtain in quantity without separating it from the raw milk myself.

I am also fond of using raw goat's milk to make cheese.

Remarkably, neither myself nor my friends appear to have succumbed to a life-threatening infectious disease conveyed to us through the medium of raw milk. In running market stalls and talking with consumers, I have also never heard of a direct report of someone ill-affected from introducing it into their diet. As the first chapter leader of the Weston Price Foundation in Australia, and having participated in the real milk movement for many years, I am networked and exposed in such a way that I would be very likely to hear any negative effects people had experienced from drinking raw milk. That doesn't seem to happen.

Reports in the literature do exist of food poisoning from unpasteurised/raw milk. They also exist for pasteurised milk/milk products – in fact more seem to. 'Confirmed' instances where raw milk was blamed for food outbreaks seem to exist that later turned out on repeated microbial testing to have been a case of excessive caution/shoddy science/prejudice, where many members of a 'food outbreak' turned out not to have consumed the raw milk concerned, and it was traced to hamburger meat etc. This is an example of prejudicial assumption by authorities, without due regard to the facts. This has cost income for many raw milk producers.(www.realmilk.com)

Other instances of raw milk producers being harassed by government and told they have to close down production for periods of time were responded to with the question 'which batch of our milk was contaminated with what organism, and reported by which lab?'. The authorities could not respond adequately, particularly when the raw milk producer pulled out all their own test results from their independent laboratory testing that did not show the organism in question. Poor milk storage, sampling, and handling procedures on the part of the health authorities were frequently demonstrated also. (If you store good milk in a contaminated container and throw it in the back of your hot car for an indefinite time period in the sun, before taking to a lab and testing then how can the results be considered reliable? The Health Department representatives should have known better.) This is an example of harassment of someone I know personally.

This does not mean we don't need a standard, or that raw milk can't carry pathogens, or that health authorities shouldn't be diligent.

As a naturopath I see people with health conditions who benefit greatly from such raw goat's milk, and see that it has been very beneficial in helping children who seem intolerant of pasteurised cow's milk to be able to prosper and grow. If raw cow's milk was more available I feel confident that the virtual epidemic of milk intolerance/allergy that naturopath's confront on a daily basis would be greatly lessened. It has become standard practise for naturopath's to prescribe for their patients a period of withdrawal from dairy products to see if symptoms improve. This is a sad statement about our pasteurised milk industry's products.

I have personally seen the results in people's lives of changing from pasteurised milk to raw milk. Chronic sinus problems, tendencies to lung infections, milk allergies, headaches, severe skin conditions, and other symptoms disappear or dramatically lessen in frequency. This seems to happen too consistently to be coincidental.

The fact that most of the dairy cows in Qld would die from excess-grain-ingestion-caused-lactic acidosis if they weren't force fed antibiotics on a daily basis, may contribute to the very poor milk quality and negative health effects, when viewed from a naturopathic perspective. Likewise, feeding of urea to cows, and the use of other toxic drugs on cattle, and synthetic hormones to boost milk production artificially have great potential negative health implications for consumers, and appear commonplace in standard milk production.

I point this out, because small scale raw milk producers supplying local markets (and therefore boosting regional economies, and regional self-sufficiency, which is desirable from a 'resiliency under invasion' national security strategy point-of-view) also seem to understand and respond to the consumer demand for grass-fed products (not grain-fed), and for ensuring that the overall environment and lifestyle of the herd and the cows in the herd add to a reasonably healthy stress-free dynamic, which ensures optimal immunity for the cows. According to Mark McAfee in the US who runs a very excellent raw milk production business, this is essential in order to maximise the antimicrobial factors in the raw milk. Many of the consumers/producers who are party to this way of thinking appreciate organic/biodynamic principles and practices in food production.

(Surely with the rising cost of petrol and oil it is becoming obvious to everyone, including government and statutory bodies, that the more locally produced our food is, and the less shipping required, the better for the consumer. **While our food production, shipping, and supply is overly dependent on petrol and oil, there will be wars over petrol and oil. Encouraging local farms, local markets, and small-scale short-supply-chain provision of milk and other foods is an obvious and desirable outcome to rising fuel prices.** Town planners, councils, and governments would do well to remember that they are elected by the people and required to serve those people.)

Raw milk contains enzymes, bacteriostatic substances, and its own microflora, that prevent it from putrefying as pasteurised milk will. If you doubt this stick each one on the bench in a sterilised sealed container for a few days and come back and smell them both. If you really want a challenge, leave it for two weeks, and then analyse what bugs are still present. Lactic flora are rather dominant as pH drops! I no longer have the references from science journals demonstrating the very low counts/destruction of pathogens that results from lacto-fermentation of raw milk for two weeks, but the results were just as good as immediate short-term testing after refrigeration. These results were graphed and peer-review published.

The lactoperoxidase enzyme (present in raw milk) is effective enough as a preservative that it is now being used in some products available for purchase in health stores. This is occurring in response to the consumer demand for 'non-toxic' 'natural' preservatives. It is quite funny that raw milk enzymes are being used to preserve other substances in health store products!

While there is a limit to it, and cleanliness is key, healthy raw milk from healthy cows is an effective antibiotic with respect to several pathogenic organisms. The friendly bugs and enzymes of raw milk appear to "bash up the baddies". For more information on this consult interviews with dairy farmer Mark McAfee. www.organicpastures.com

> 'To prove his theory, a few years ago, McAfee sent his milk and colostrum to a private lab and had both injected with high levels of the three pathogens. The bacterial counts of all three bugs decreased over time. And the conclusion of the scientist at BSK Labs? "Raw colostrum and raw milk do not appear to support the growth of Salmonella, E. coli O157:H7, and Listeria monocytogenes," stated the lab report. McAfee is so proud of his below-normal bacteria counts that he posts annual averages on his Web site.
> '

http://www.salon.com/mwt/feature/2007/01/19/raw_milk/index1.html

I don't think anybody is saying that raw milk can't be a medium for nasty bugs and that we should throw all caution to the wind. Some raw milks obviously can. (so can raw meat, raw spinach, raw tahini, and raw alfalfa sprouts!) **That's why we do need a standard.**

The test for 'effective/adequate' pasteurisation is to confirm the absence of a particular enzyme that is present in raw milk (phosphatase). Pasteurisation destroys enzymes. The western diet as a generalisation is poor in enzyme-rich foods. Enzymes are used as therapy in several countries, for a number of diseases (e.g. Systemic Enzyme Therapy in Germany.) Let's pick one type of enzyme and follow a certain course of logic in considering it's importance in the human diet.

Lipase enzymes digest fats. Lipase enzymes are destroyed by heat. Lipase enzymes and lipase enzyme-rich foods have been used to treat a number of diseases – fatty liver, fat in the arteries, psoriasis to name a few. In Germany lipase enzymes are used to treat atherosclerosis.(Townsend Letter for Doctors, 'Systemic Enzyme Therapy' article.)

Raw milk has lipase enzymes. Pasteurised milk does not. What do you suppose the cumulative effect of a lifetime of consuming enzyme deficient milk and milk products might be? Perhaps all pasteurised milk should come with a warning about its atherogenic potential caused by a lack of lipase enzymes?

The case for raw and fermented foods that are enzyme rich can be understood from another point of view. If the raw butter on your sandwich has active enzymes in it, then it will start to digest the meat in your sandwich before you eat it, and will keep digesting it for you for a period of time while it is in your stomach. In fact, there is no way that this can't happen if the two are in contact.

As a naturopath, I understand that many people do not digest their food well, and as a result a silent epidemic has occurred, with many people's lymphatic systems congested with undigested food materials (starch, fat, protein). This has been termed 'mucoprotein' and 'lymphatic congestion' variously by health authorities over the years. Further information on it can be found in Guyton's

textbook on Medical Physiology. In simplistic terms, it's like having thousands of footballs on the end of thousands of vacuum cleaners – and the footballs are too large to fit into the vacuum cleaner, just like the undigested mucoprotein complexes are too large to fit into the lumen of the lymphatic vessels. Impaired lymphatic drainage leads to impaired cellular oxygenation in local tissue, which predisposes to poor immunity and poor cellular function, resulting in infections and cancerous degeneration (ultimately). **Bottom line – it's important that we digest our food. Therefore – let's eat enzymes and ferment/predigest our foods!**

If you go through the scientific literature you will find references to the work of a Dr Annand who observed that the heat modification of proteins in milk caused some cardiovascular problems. Annand (1967, 1971, 1972)

Annand, J. C. (1967). Hypothesis: Heated milk protein

and thrombosis. Journal of Atherosclerosis Research,

7, 797-801.

Annand, J. C. (1971). The case against heated milk

protein. Atherosclerosis, 13, 137-139.

Annand, J. C. (1972). Further evidence in the case against

heated milk protein. Atherosclerosis, 15, 129-133.

Annand, J.C. (1986). Denatured Bovine Immunoglobulin Pathogenic in Atherosclerosis. Atherosclerosis, 1986;59:347-351

Everyone thought that the pasteurisation method he critiqued was safe, until he demonstrated otherwise. I wonder what we don't know about the chronic health effects of current pasteurisation? I wonder if a class action law-suit was lodged from the people who now had blocked up arteries from heated milk protein consumption – would the government concerned compensate the people and restore their health for them? Perhaps the people would have appreciated the right to choose raw milk?

The below excerpt in different font is from a response I authored to the Regulatory Impact Statement released by SAFE Food Qld in 2002. (It is referred to several times in this document and is also attached as part of this submission.)

> - Also consider, that pasteurisation produces changes in the proteins and fats in the milk. Studies have implicated heated milk protein with the causation of atherosclerosis (Annand JC (1971) "The case against milk protein." Atherosclerosis, vol.13, p.137, Annand JC (1972) "Further evidence in the case against heated milk protein." Atherosclerosis, vol.15, no.1 (Jan.), pp. 129-133, Annand JC (1986) "Denatured bovine immunoglobulin pathogenic in atherosclerosis." Atherosclerosis, vol. 59, no. 3 (Mar.), pp. 347-351)).
>
> Other authors have pointed out that the heated-milk lipids (fats) undergo oxidation, and that oxidized lipids have been implicated, also, with the development of atherosclerosis.

Vitamin B6 is not heat stable – it degrades. It is necessary for adrenal function. In other countries raw animal foods are/were consumed as part of the traditional diet (e.g. Kibbeh (lamb) in Lebanon,

Steak Tartare in France (from cows), and Belgium (from horses), raw wiggling shrimp soup in Thailand, raw fish in the Pacific Islands and South America (ceviche), raw milk cheeses and soured creams etc in Switzerland...the list goes on and on.

As a naturopath, I frequently see patients who present with adrenal exhaustion and types of depressive states/neurotransmitter imbalance/food allergies and poor immunity of varying degrees. The adrenal gland needs vitamin B6 (among other nutrients). The adrenal gland makes hormones that are required for our ability to respond to stress, including infectious stress. In fact, people who died during the flu epidemic/pandemic died of adrenal exhaustion/destruction, and were no longer able to respond to the infectious stress as a result. If you don't believe me read the research.('Safe Uses of Cortisol', William McK. Jefferies – Third Edition.)

Many other biochemical pathways in the human body are dependent on vitamin B6, including many brain neurotransmitter pathways. In a many-cultured country which has no significant non-original - people tradition of raw animal food consumption, where do most of the population get their vitamin B6 from? Many of the foods that originally contained it are consumed cooked. We used to obtain it from raw milk. Now that most of the population consumes heat-treated milk, what effect do we think that this will have upon national health and our susceptibility to infection?

The below excerpt in different font is from a response I authored to the Regulatory Impact Statement released by SAFE Food Qld in 2002.

> - a glaring omission here is the nutrient status of the dairy product and its long-term effects on consumer/population health. Pasteurisation destroys enzymes like lipase (involved in fat digestion), lactase (involved in lactose digestion), phophatase (involved in calcium absorption), Vitamins B1, B6, B12, and other nutrients, and thus alters the nutritive qualities of the milk for the worse. The policy objective should be not only to stop acute illness outbreaks by ensuring a product of a certain microbial standard, but also to foster and support the long-term health of consumers and the community as a whole. WE SHOULD BE HERE TO NURTURE LONG-TERM HEALTH, AS WELL AS TO PREVENT UNNECESSARY ACUTE DISEASE.

Raw milk also contains the enzymes galactase, peroxidase, catalase, and amylase. While the lactase enzyme breaks down the lactose sugar in milk into glucose and galactose, the galactase enzyme breaks down the galactose sugar into glucose. Failure to digest/break down these sugars can result in microbial overgrowth in the the intestines creating dysbiosis ('Breaking the Vicious Cycle' – Elaine Gottschall B.A., M.Sc.). Also, oxidation of milk sugars results in the formation of mucic acids, responsible for many excess-related mucous conditions.('The Dark Side of Lactose' – Walter Last) This explains why many who are lactose intolerant and cannot manage their health well on pasteurised milk and milk products, often do very well on raw milk and milk products. As a naturopath, I can tell you that fermentation can often still be required for severe cases of intolerance, and also that patients appear to go from having several colds per year (a lifelong pattern in some cases), to none at all, or perhaps one mild one, once they change their diets so that they are digesting whatever dairy they eat. This involves using raw dairy and fermentation. For many naturopaths, where raw milk has been so unobtainable, they have had to advise their patients to cease all dairy consumption in order to achieve the same health results.

As a naturopath, I am confronted weekly, if not daily, with couples and singles who wish to make a child, but have been diagnosed as infertile. Infertility rates have continued to rise as time progresses.

The below excerpt is from a response I authored to the Regulatory Impact Statement released by SAFE Food Qld in 2002. (It is referred to several times in this document and is also attached as part of this submission.)

I contend that merely meeting certain microbial standards is not adequate to make it [milk] "fit".

The health of the original cows, and their feed, is necessary to guarantee healthy milk.

Long-term effects on the health of individuals and society as a whole must be considered as well as short-term bacterial considerations. A longer-term health view makes pasteurised milk appear less and less "fit" for human or animal consumption. (re: Pottenger's Cats - The Original Study in Animal and Human Nutrition (Francis M. Pottenger, Jr., MD), The Pottenger Cat Studies (video), Effect of Heat Processed Foods on Animals (Francis M. Pottenger, Jr.,

MD), Lancet 21/3/31, pp 662-667, "Relative Value of Raw and Heated Milk in Nutrition", Lancet 8/5/37, pp1141-1143, "Milk Pasteurisation", etc.)

Calves, kittens, pups and rats can not be raised properly on pasteurised milk, without significant dietary supplementation. It's enzyme content has been largely destroyed along with several other degenerative changes in nutrient content.

I personally know a farmer who had 52 calves die after feeding them pasteurised milk for three weeks. Pottenger's investigations with cats has shown degeneration and inability to reproduce after the third generation, in cats fed a diet with pasteurised milk. Cats are not humans, and the studies were done a long time ago, and are sometimes overemphasised, and misrepresented/distorted. Cats do have different nutritional needs than humans, and possibly could be bred successfully on a diet containing pasteurised milk if certain nutritional factors were supplemented adequately or provided in other foods. The fact, however, remains, that the heat-treated diets, when fed to cats, produced progressive degeneration of their health, while the same diets raw did not. Therefore, PET'S MILK MUST NOT BE PASTEURISED. **Authorities who seek to continue to limit the availability of microbially safe, raw, unpasteurised bovine milk for human consumption should consider potential future litigation from consumers with reproductive problems and other health problems, including dental diseases, and heart and circulatory disorders. Class actions are not discountable as possible future scenarios in this arena....**

- Where is the evidence that pasteurised milk doesn't produce similar degenerative long-term effects in humans as it does in ALL other species that have been investigated?...

Pasteurised milk is completely unacceptable as pet food, as it has been shown to produce physical degeneration and infertility. Baby calves sicken and die within three weeks from pasteurised-milk feeding, even after receiving the colostrum from their mothers for a week previous to the commencement of pasteurised-milk feeding...

WHAT DO YOU THINK THE NET COST TO LONG-TERM PUBLIC HEALTH WLL BE FROM NOT PROVIDING MICROBIALLY SAFE, RAW (UNPASTEURISED) MILK TO THE PEOPLE OF THIS COUNTRY WHO PLAN ON HAVING CHILDREN?

Any dietary change that induces a-change in the microflora of the humans/animals ingesting the new food can produce a short-term adaptation period. Oral tolerization to proteins in the new food is aquired with low dose frequent exposure, and the immune system learns to recognise the components within the new food. At the same time, intestinal microflora adapts, and the immune system also learns to recognise and distinguish low-dose antigens/pathogenic bacteria. The immune

system may also learn to recognise material from pathogenic bacteria that have been 'attacked/killed' by enzymes and other 'good' microflora in the milk. **This is a combined process of a form of oral immunisation and oral tolerization that has been occurring for thousands of years**, and occurs between every breast feeding mother and her child, and probably every yoghurt consumer as well!

Based on the above, a fair argument could be made that because of lack of previous exposure to raw milk and raw milk products, and lack of previous exposure to local food producing systems, initially some consumers may have a short adaptation period to raw milk and raw milk products with some change in bowel habits – often for the better! This even occurs with probiotics (friendly bacteria) on sale in health shops. Die off reactions (from the death of unfriendly organisms inside the gut) are common as people increase their intake of friendly lactobacilli. These lactobacilli have been shown to have many effects on many body systems, including immunity, immune tolerance, digestion, etc. (If you can't find references for probiotics and health effects then you haven't looked for them – it's an enormous area of modern research and the little blue guys on the 'Inner Health' advert on the tele' remind me of Smurfs!)

Some kids who visit farms and don't even consume anything while on the farm may still experience an adaptation to the microbial environment at the farm, and the antigens from the animal dust and dander interacting with their immune systems. This is common folk knowledge and experience, and is also in the peer-review scientific literature. There is even information in the literature indicating that lack of exposure to the farm-like environment, and also lack of consumption of fermented food, especially in the younger years, is resulting in immune system imbalances (atopy, eczema, asthma) (Lancet 1999; 353; 1485). A fair argument can be made that children should be regularly exposed to natural and farm environments for good immune system development. (British Medical Journal The Lancet, Vol 353, May 1, 1999, p. 1457-1458) An extension of being exposed to this environment is the consumption of raw farm produce, and fermented foods.(Braun-Fahrlander C, Gassner M, Grize L, et al. Prevalence of hay fever and allergic sensitization in farmer's children and their peers living in the same rural community. Clin Exp Allergy 1999; 29; 28-35

Bjorksten B. Allergy priming in early life. Lancet 1999; 353; 167-68

http://www.reuters.com/article/healthNews/idUSROB88111720070518, 'Drinking Farm Milk May Cut Asthma Risk'

Clinical and Experimental Allergy, May 2007)

From "The Untold Story of Milk" by Ron Schmid ND:

'Actually, regular exposure to organisms such as *Salmonella* can build resistance and immunity. In effect, we may make ourselves stronger and healthier by eating raw foods that may contain organisms considered 'pathogenic.' That is why regular raw milk drinkers were much less likely to become ill during outbreaks of illness attributed to raw milk than first-time raw milk drinkers. According to a 1985 report, "persons, regardless of age who are routinely exposed to *Campylobacter jejuni* by vehicles such as raw milk may develop some protective immunity. [This is] supported by several serological studies..." (Korlath JA and others. "A point-source outbreak of Campylobacteriosis associated with consumption of raw milk." *The Journal of Infectious Diseases*, Sep 1985;152(3):592-596.)

During one *Campylobacter* outbreak "...none of the chronic raw milk drinkers became ill after ingesting large amounts of the same milk that caused a high attack rate among those persons who were acutely exposed.... Presumably this phenomenon is due to previous exposure to *Campylobacter* with subsequent development of immunity... this investigation confirms the presence of these antibodies [to *Campylobacter*] in persons chronically exposed to raw milk and for the first time, to our knowledge, shows an association between high antibody levels and immunity to infection under field conditions."(Blaser MJ and others. "The influence of immunity on raw milk-associated *Campylobacter* infection." *The Journal of the American Medical Association*, Feb 1987; 257(1):43-46.

Quite simply, these studies confirm the fact that raw milk drinkers develop powerful immunity and resistance to pathogenic organisms. The same journals that provide this information have continued to demand a complete ban on raw milk, including a ban on farmers giving the product away to neighbors and friends.'

In short, by avoiding all low dose exposure to pathogens that exist in the natural environment we may be producing a race of immune system weaklings, with immune system imbalances favouring the development of chronic diseases of immune dysfunction.

This is not a justification for a lax standard. It is a reason for consuming raw and fermented foods and supporting local producers, and supporting children in learning about local food production and visiting farms. It is also food for thought that by avoiding raw and fermented foods we may be inducing immune deficiency in the general population.

The below excerpt is from a response I authored to the Regulatory Impact Statement released by SAFE Food Qld in 2002. (It is referred to several times in this document and is also attached as part of this submission.) It is included to supply some scientific peer-review literature relevant to the connections between raw and pasteurised milk and human health that may not be understood or considered by health authorities otherwise.

- The following is from the esteemed British medical publication, The Lancet, Vol 353, May 1, 1999, p 1457-1458: "A recent study of Swiss children* has shown that the prevalence of symptoms of sesonal rhinitis and of aeroallergen-specific IgE antibodies is three times lower among the offspring of farmers than among other children in rural Switzerland. This effect was greater for families of full time farmers than for the offspring of part-time farmers, consistent with a protective influence of "traditional" lifestyle.

One possibility... is that the diet of farming households, which includes a greater proportion of home-grown food and unpasteurised diary produce than that of other households, could influence the early maturation of the immune system through its effects on microbial ecology in the intestines of young infants.**

(*Braun-Fahrlander C, Gassner M, Grize L, et al. Prevalence of hay fever and allergic sensitization in farmer's children and their peers living in the same rural community. Clin Exp Allergy 1999; 29; 28-35

**Bjorksten B. Allergy priming in early life. Lancet 1999; 353; 167-68)

- In other words, raw milk improved their immunity, partly perhaps because of the beneficial bacteria from the milk acting in the children's intestines.

You may recall that these beneficial bacteria are destroyed by pasteurisation.

- Changes in intestinal microflora have been associated with lower rates of eczema and asthma in children in Sweden (Lancet 1999; 353; 1485)

- We may be breeding and raising a large number of people with very weak immune systems by not providing a diet with a reasonable bacterial load for the immune system to exercise itself on.

- "Long-term and early-life exposure to stables and farm milk (boldface mine - "farm" means usually raw, unpasteurised) induces a strong protective effect against development of asthma, hay fever, and atopic sensitisation"..."Farm milk, which is usually raw, contains more gram-negative bacteria*** and thus lipopolysaccharide,**** than pasteurised milk. Therefore, the protective factor associated with consumption of farm milk could be associated with ingestion of non-infectious microbial components, with resultant changes to the commensal gut flora, or both." (Lancet 2001; 358; 1129-33)

(***Kilewein G. Leitfaden der Milchkunde und Milchhygiene. Berlin:

Blackwell Wissenschaftsverlag, 1995: 83-85

****Suhren %, Hesselbarth H, HEeschen W, Sudi JI. Evaluation of the lipopolysaccharide (LPS) content as determined by the limulus test in milk and milk products II: raw milk and influences of technological procedures.

Milchwissenschaft 1986; 41: 156-60.)

- Studies show that:

* children fed raw milk have more resistance to tuberculosis and other infections and less tendency to chilblains and tooth decay, than children fed pasteurized milk (Lancet, p 1142, 5/8/37)

* that raw milk is very effective in preventing scurvy and protecting against flu, diphtheria and pneumonia (Am J Dis Child, Nov 1917)

* that raw milk is better than pasteurized milk in promoting growth and calcium absorption (Ohio Agricultural Experiment Station Bulletin 518, p 8, 1/33)

* that a substance in raw cream (but NOT in pasteurised cream) prevents joint stiffness and the pain of arthritis (Annual Review of Biochemistry, 18:435, 1944).

- Also consider, that pasteurisation produces changes in the proteins and fats in the milk. Studies have implicated heated milk protein with the causation of atherosclerosis (Annand JC (1971) "The case against milk protein."

Atherosclerosis, vol.13, p.137, Annand JC (1972) "Further evidence in the case against heated milk protein." Atherosclerosis, vol.15, no.1 (Jan.), pp. 129-133, Annand JC (1986) "Denatured bovine immunoglobulin pathogenic in atherosclerosis." Atherosclerosis, vol. 59, no. 3 (Mar.), pp. 347-351)).

Other authors have pointed out that the heated-milk lipids (fats) undergo oxidation, and that oxidized lipids in milk have been implicated, also, with the development of atherosclerosis. With this in mind, pasteurised milk appears more and more to be a significant long-term "food-safety risk".

And later

"Long-term and early-life exposure to stables and farm milk (boldface mine

- "farm" means raw, unpasteurised) induces a strong protective effect against development of asthma, hay fever, and atopic sensitisation"..."Farm milk, which is usually raw...(Lancet 2001; 358; 1129-33)

- (Frequency of asthma was reduced from 11 percent found in the control group to 1 percent among the

farming-exposed children. Similarly, hay fever occurred in only 3 percent of the farming-exposed children, compared with 13 percent of the controls, and atopic sensitization occurred in 12 percent of the farming group and in 29 percent of the controls. The researchers found that the timing of exposure to the farm environment and raw milk was critical. Those children exposed during the first year of life showed the greatest protective effect. Continual long-term "exposure to stables" until age five years was associated with the lowest frequencies of asthma, hay fever and atopic sensitization. Subsequent comments on this article (Lancet 2002 Feb 16;359(9306):623-4) stress "exposure to stables" as the determining factor but we wonder whether this is any different than exposure to pets in the typical urban home.

It is much more likely that consumption of raw milk is the determining factor because this variable can be uniquely determined. - www.realmilk.com)

- children fed raw milk have more resistance to tuberculosis and other infections and less tendency to chilblains and tooth decay, than children fed pasteurized milk (Lancet, p 1142, 5/8/37)

- that raw milk is very effective in preventing scurvy and protecting against flu, diphtheria and pneumonia (Am J Dis Child, Nov 1917)

- **Now consider, we as a nation have a very high incidence of asthma (actually we're virtually the asthma capital of the world!)**, and quite high incidences of allergic rhinoconjunctivitis, and, atopic eczema (Lancet 1998;

351; 1225-1232) (brackets mine).

So in summary:

I like consuming raw milk and raw milk products. I use raw milk bacteria to culture other fermented foods that are a regular part of my lifestyle.

So do my friends and family. So do some of my patients, and many of the members of the Weston Price foundations (www.westonaprice.org). Our health seems better as a result.

We'd like the right to choose. We'd like to be able to access raw milk and raw milk products more easily, including raw milk cheeses.

We'd like government, producers and consumers to get together and cooperatively work out a standard for raw milk production to minimise risks.

Because there is no standard my friends, family, patients purchase/obtain raw milk from unlicensed sources and assume responsibility for the risk involved themselves, cooperatively with the farmer. Of course, this milk, if purchased, is not sold, advertised, or labelled as for 'human consumption'.

We'd like an attainable standard please. And we'd like it to be applied in such a way, and within such a system that supports small-scale local producers and artisans to feed their local communities.

We specifically do not want a standard that is unattainable, unaffordable, and which removes so much of the profit margins for local producers that it is not worth them running a dairy anymore. I'm talking about the exorbitant costs of overly frequent microbial testing. A system needs to be worked out that minimises cost as well as maximising safety.

Pilot studies could be arranged to demonstrate safety. Microbial testing education and local facilities for it could decrease overall costs to small-scale local farmers and create jobs. This would boost regional economies and regional food production systems. With proper systems in place, any food outbreak would of necessity be small and recallable on a local level. A short local supply chain is relatively easy to police, and consumer demand and inter-consumer communication would not allow a local health hazard to persist for very long – the farmer would want to fix his milk up really fast if nobody wanted to buy it!

Recently a very large milk producer had their cheese recalled due to Listeria contamination. I imagine that it has already been distributed all across Australia – good luck policing the recall! I wonder how many people have already consumed it? For this reason, I am in support of a raw milk standard that encourages small local production and short-supply-chain distribution.

In connection with Listeria, please find below in different font an excerpt from my submission in reponse to the RIS from SAFE Food Qld previously and subsequently referred to in this article and also attached.

- It should also be noted that pasteurisation is not a guarantee as to milk's microbial safety. "These results support the hypothesis that human listeriosis can be a foodborne disease and raise questions about the ability of pasteurization to eradicate a large inoculum of L. monocytogenes from contaminated raw milk." ("Pasteurized Milk as a Vehicle of Infection in an Outbreak of Listeriosis" The New England Journal of Medicine; 1985; 312: 404-7)

The solution is to ensure that all the cows in the herd are free of this type of infection, and their udders are properly cleaned. Pregnant women are currently warned not to drink raw milk in case they contract listeriosis and have spontaneous abortion. The irony is that pasteurised milk can contain it also, as evidenced by this study, and the proper solution is to ensure healthy cows that are free of this problem (listeric mastitis), and to ensure clean raw (unpasteurised) milk that meets proper standards of production.

- Incidentally, according to the California Dairy Research Foundation:

"Fluid Milk 1998 97-CAR-01

Development of a Fluorescent 5' Nuclease PCR Assay For The Rapid Detection of Listeria spp. in Dairy Plant Environmental Samples Principal Investigator:

Raul J. Cano, Cal Poly San Luis Obispo

EXECUTIVE SUMMARY:

The dairy industry has lost millions of dollars from product recalls due to the contamination of dairy products with Listeria monocytogenes.

Post-pasteurization contamination from environmental sources in dairy plants has been shown to be the primary method of contamination of dairy products with Listeria spp. (boldface mine) Routine testing of plant environments for Listeria spp. would be beneficial in identifying areas in which contamination of raw, intermediate and final dairy products could occur, and aid in the removal of this organism as a threat to final product integrity. In order for this type of assay to benefit the dairy industry it should be rapid, easy to use and accurate in identifying problems or areas of risk within a dairy plant environment."

- so keep your factories clean if you want to control Listeria, as that is the primary source of problems

- there are natural factors in raw milk that inhibit the growth of pathogenic bacteria. Mark McAfee, the

owner of Organic Pastures Dairy, in Santa Monica, US, recently talked about some tests done (I think at UC Davis) where live staph. bacteria was put directly into fresh raw milk; in some of the test tubes, bacteria count went down slightly, in others, it went down drastically, but it never went up

- showing how raw milk does not support the growth of pathogenic bacteria, as does pasteurized milk.

In connection with Escherichia Coli O157:H7 contamination of milk, please find below in different font an excerpt from my submission in reponse to the RIS from SAFE Food Qld previously and subsequently referred to in this article and also attached:

- consider also the conclusion in "Testing of Probiotic Bacteria for the Elimination of Escherichia coli O157:H7 in Cattle" by Mindy Brashears and Michael Galyean: "Based on these observations, supplementing cattle with certain probiotic cultures (two strains of Lactobacillus acidophilus; NPC 747 and NPC 750) decreases the incidence of E. coli O157:H7 in the feces of finishing beef cattle." These are an example of the types of bacteria that are killed by feed antibiotics. So, put simply, feed a cow antibiotics and you kill the friendly bacteria in its guts, whose job it is to normally control other bad bacteria and stop them from overgrowing. This must be of great importance if faeces are seen as the major contaminating factor for dairy milk.

So it appears that the dreaded and anything-but-funny E Coli O157:H7 is a product of excessive grain feeding, and antibiotic usage – that's why I'm in favour of a raw milk standard for raw milk from GRASS-FED cows.

Again, from "The Untold Story of Milk" by Ron Schmid ND:

'GRASS-FED IS SAFEST

Back in 1936, Edwin Jordan, author of *A Textbook of General Bacteriology*, pointed out that "The character of pasture was early observed to affect the kind and abundance of the species [of bacteria] found in milk; the lack of pasture in more recent years has been demonstrated to have a profound effect."(Chapter 40) Numerous studies have confirmed that current feeding methods utilizing large quantities of grains have had a profound effect on the kind and abundance of bacteria found in milk, much to the detriment of the health of the animals and the quality of the milk.

Of particular relevance is the development of acid-resistant strains of bacteria in modern cattle. According to a 1998 *Science* magazine article, cattle fed mostly grain have a lower intestinal pH (more acidic) and are more likely to harbor pathogenic bacteria than cattle fed mostly grass and hay. The abnormally low pH in which the bacteria develop makes these bacteria acid-resistant. "The ability of bacteria to act as food-borne pathogens depends on their capacity to survive the low pH of the [human] gastric stomach and to colonize the intestinal tract of humans," the authors write. "Cattle that were fed grain had one million-fold more acid-resistant *E. coli* than cattle fed hay."(Diez-Gonzalez F and others. "Grain feeding and the dissemination of acid-resistant *Escherichia coli* from cattle." *Science*, Sep 11, 1998; 281:166-168.)

These acid-resistant pathogenic bacteria from heavily grain-fed, overly acidic cattle have an increased ability to survive the acid environment of the human stomach and subsequently

colonize the intestinal tract and cause disease. This is a major reason why raw milk (or meat) from grass-fed cows is so much safer than milk from animals kept largely or entirely in confinement and fed mostly grains and silage.'

Small scale producers with small herds and high herd health standards are able to uphold those standards because their herds are small. If government could work cooperatively with these small-scale producers in producing high-standard microbially safe raw milk and milk products then consumers could be assured of a safe high quality product to use in their kitchens. Unfortunately, these small-scale producers are busy running their farms and tending to their cows' health, and will usually lack the funding necessary for time-consuming, long-winded, and excessively costly submissions to authorities.

I see no reason why if raw milk can be produced, packaged, stored, and shipped according to a reasonable set of standards of microbial safety that it cannot be made available for sale for human consumption. There are working models of it being done in the world. If you care about it, go research it, and help local producers copy the working models.

If raw milk can be produced to an equivalent standard bacteriologically (and remain so at point of sale), as pasteurised milk is required to have at point of sale, then what good reason can be given as to why it should not be legally allowed for sale?

Public education campaigns and label warnings may be necessary to protect those with an increased risk of food-borne illness. This may include those with AIDS, pregnant women, young children, the elderly, and those on immune suppressant medications.

Another consideration is the biochemistry of the soil, which determines the biochemistry of the pasture produced from that soil. Hence fertilisation methods are vitally important to consider in connection with pasture, animal, milk, and human health. Again, please find below in different font an excerpt from my submission in response to the RIS from SAFE Food Qld previously and subsequently referred to in this article and also attached:

- It is relevant to discuss briefly the work of Julius Hensel from the late 1800's, in his book, "Bread from Stones. He observed that cows which grazed on fields that had been treated with NPK fertiliser (nitrogen, phosphate, potassium) were responsible for passing on diphtheria to the people which drank their milk, whilst cows over the hill on untreated fields were not. He contended that on NPK-treated fields, positively charged ammonium ions were substituting for positively charged mineral elements in the tissue-matrix of the grass the cows were eating, and thus altering the biochemistry of the cow (making it more ammoniacal), its milk, and the humans that drank it. It is possible that this alteration of biochemistry may predispose to the dominant growth of one type of organism or another in a cow's gut, blood, and milk, and the people who drink its milk. (Certainly, sauerkraut made from non-NPK-fertilised soil cabbages smells different once fermented than sauerkraut made from NPK-fertilised soil cabbages.) I do not know of any modern studies that have investigated this (although modern studies HAVE been done with respect to feeding of UREA to cattle, a harmful practice), but the basic point I am trying to make is that even the feeding of the soil,

which feeds the plants which feeds the cows which feeds us, must be considered. Anything that affects the cow can affect the milk. This suddenly, potentially, places those farmers who manage their soil according to sustainable organic principles into a different category than others, with regards to milk production. (Perhaps this is how some farmers succeed in maintaining healthy stock with healthy immune systems and never need to use antibiotics for decades together.)

And also:

According to Julius Hensel, in his book "Bread from Stones: A New and Rational System of Land Fertilization and Physical Regeneration" (1991, Acres U.S.A., pp 50-51): "Plants need potassa, soda, lime, magnesia, iron, manganese, sulfur, phosphorus and luroine, and in the artificial fertilizers they only received expensive potassa, phosphoric acid and nitrogen for their nourishment...nitrogenous fertilizers in the form of Chili-nitre have caused a predominance of cattle diseases. That hares and deer have been found dead in numbers in places which had been fertilized with Chili-nitre I have read in at least twenty newspapers, and it has also been reported to me by eye-witnesses. As in the open air so also in the stables. No normal animal bodily substance can be formed from fodder manured with nitrogen, especially no wholesome milk equal to that from cows feeding on mountain herbs...It is not to be computed how great an injury to health with men and animals has been caused by stable manure. Milk produced from ammoniacal plants paved the way by which the destructive spirit diphtheria has swooped down after measles, scarlatina, scrofula, pneumonia had become the familiar companions of the Germans, who before were strong as bears. Artificial manure at last put the crown on this work of destruction."

A very important list of considerations for incorporation into any raw milk standard can be found in the online document: http://editor.nourishedmagazine.com.au/articles/nourished-community-fsanz-submission-for-raw-milk. They are repeated below, and have my full endorsement:

'We want to drink milk that is certified to be:

- From one inspected and certified source: never commingled with raw milk from other herds.
- From herds that consume grass and hay exclusively
- From herds tested to be free of TB. (Although we know we can't contract bovine TB, we wish to drink milk from healthy cows - nutritional support for cows have shown to reduce TB in herds..12)
- From local sources ONLY. Raw cheeses made from local milk within hours of milking.
- Tested to be less than 20,000 SPC on one time per month by certification agency AND independent testing on finished products: Zero pathogens including, Listeria M, E coli 0157H7, Salmonella, Campylobacter in finished products. Worst pathogens (e coli 0157H7) tested more frequently (at least once per week by farmer with results recorded and sent to certification agency).
- Farmed with an Active Farm Food Safety Plan based on HACCP principles to identify risks and manage them. This plan is tested for compliance.
- Labeled as Raw Milk. We see no need to label with warnings unless Pasteurised dairy will also be labeled so.

Certification For Raw Milk

We submit as references, "Raw Milk Production Handbook" published by the Weston A Price

Foundation.."The Raw Milk Handbook", Tim Wightman: The Weston A Price Foundation - http://westonaprice.org/federalupdate/aa2008/30apr08.html) and ask that FSANZ to use the Raw Milk Certification (http://www.rawusa.org/) available in US to create our own here in Australia.

We, the Nourished Magazine Community, as consumers of raw milk, wish to be consulted during the process of creating this certification. Some recommendations we include are:

- No antibiotics may be used on a cow or other mammal from which raw milk is distributed. Antibiotic treated cow's milk must remain separated for one year
- No growth or milk stimulating hormones may have been used at any time
- No pesticides on cattle or environment
- All dairy pastures certified organic or certified transitional.
- Cattle allowed access to pasture 150 days per year at a minimum and 100% of the time when possible. All natural feeds that the animal would naturally eat in nature.(natural corn, barley, wheat or forages but not soy or cottonseed or other unnatural processed feeds.)
- Clean place for cattle to lie down and rest. All bedding areas are natural pasture or something that the cow would find in a natural environment. No free stalls or loafing stalls.
- Lactating animals must not be kept in crowded conditions and must be allowed to range freely, seek solitude and undisturbed rest. There must be adequate space available for the animal to experience all natural behaviors including: birthing, breeding etc.
- There must be ample clean fresh water available - no crowding for competition to water access.
- Monthly testing for pathogens including the presence of Salmonella, Ecoli 0157 H-7, Listeria Monocytogenes.
- No TB and Brucellosis in herd on initial test and then once every two years.
- All raw milk must be chilled to below 4 degrees C within one hour after milk is drawn from animals. No product will ever be exposed to heat above 48 degrees C at any time, assuring that enzymes and bacteria are undamaged, alive, active and healthy.
- All stored or packaged raw milk to be kept at or below 4 degrees C until consumer sale (1-2 degrees C is preferred).
- All milking parlors and equipment, milk houses, milk handling and bottling equipment shall be kept clean according to the standards required by the local county or state milk sanitation standards for Grade A milk production. No sterilizers may be used including quaternary ammonias.'

All the following areas should be addressed in a true HACCP through-chain approach:

- Herd health,
- microbial testing and safety limits,
- recall procedures,
- record-keeping,
- animal feed,
- packaging materials and procedures,
- handling procedures,
- teat sterilization,
- storage temperature,
- worker education,

- equipment and utensil sterilization,
- infection control measures (no cough, sneeze, lick, etc),
- worker hygiene procedures,
- temperature mesurement and thermomenter calibration,
- Appliances/transport/refrigeration equipment,
- animal and pest control measures,
- record keeping,

- animal housing,
- cleaning/sanitation procedures,
- garbage/sewage/liquid waste management and disposal/recycling/handling,
- internal surfaces finishing,
- ventilation,
- sewage/waste water management,
- fixture, fitting, appliance materials,
- water availability, storage, temperature, pressure microbial testing,
- hand washing facilities,
- cleaning and sanitising appliances,
- validation/verification measures (standard plate count, NATA accredited laboratory cross-checking),
- antibiotic/pesticide/chemical contamination,
- test result notification procedures and internal and external auditing,
- packaging and use-by dates,
- regulatory requirements compliance, and consistency,
- mastitis detection and control,
- animal health checks,
- infection control measures,
- microbiological assessment,
- microbial risk factor identification and knowledge,
- farm management (e.g. Rotational grazing, stock control),
- dust and faeces management,
- sources of microbial contamination,
- Critical Control Point (CCP) and hazard identification,
- monitoring,
- correction verification procedures,
- human resource management – clear assignation of roles and responsibilities,
- cooling,
- filtering,
- storage,
- flow diagrams of procedures,
- product testing and recall procedures,
- health department notification.

Critical Areas of Concern include:

- Herd Management – including herd feeding, rotational grazing, stocking rates, segregation of diseased animals, infection control measures and treatment
- Milking
- Filtering
- Milk Cooling and Storage
- Filling Packing
- Freezing
- Storage
- Product Testing
- Distribution
- Monitoring
- Recall Procedures

Hazards identification includes:

- Chemical Contamination of Milk

- Physical Contamination of Milk
- Bacterial Contamination of Milk
- Growth of Spoilage and Pathogenic Bacteria
- Untraceable products
- Underfilled Containers

Critical Control Points includes:

- Animal Treatments
- Feed and Feed Additives
- Stock purchasing
- Water for Stock
- Animal identification
- Animal health monitoring and segregation
- Sanitation of Equipment
- Filter replacement
- Milk temperature monitoring
- Filling times
- Personnel hygiene
- Milk grading
- Container sealing
- Use-by Dating
- Product Volume
- Refrigeration/Freezing time/temperature
- Product testing and sampling procedures

Detailed Monitoring Procedures for the above, with clear role assignations, Standards Specifications, Corrective Action, and record-keeping are necessary.

Please find attached a copy of a raw milk production code that I would be willing to accept and endorse as a reasonable standard for raw bovine milk production. Moral rights to this document belong to Tim Wishart, Kenmore, Brisbane, and it is used with his consent.

Please also find attached a letter I once communicated to SAFE food that outlines the desires of The Real Milk Alliance, drafted by myself on the RMA's behalf. It outlines important aspects of soil, pasture, feed, cow, herd, milk, and consumer health that are often overlooked.

Please also find attached a document I authored "Comments on the Regulatory Impact Statement (RIS) (Food Safety Scheme for Dairy Produce) August 2002" which I submitted to SAFE Food Qld. (Several excerpts from this document are throughout this submission.) It has important information worth considering in any information gathering procedure relevant to raw milk legislation, including potential class-action lawsuits from effects on reproductive health (pasteurised cow milk will not even support the health and growth of bovine calves, let alone adult humans!), scientific references relevant to the effect of raw and pasteurised milk on human and animal health, commonly unconsidered factors in a thorough through-chain approach from fertilisation/soil/pasture practices through to the retailers' fridges, short and long-term health outcomes that relate to raw/pasteurised milk consumption choices, .

Please find below in different font an excerpt from my submission in response to the RIS from SAFE

Food Qld previously referred to in this article:

Re: "Summary" bullet points.

1. These do not contain any consideration of long-term effects on population health or the costs to all concerned parties of these.
2. Consider again, infertility, atherosclerosis, asthma, eczema, atopic disease etc.
3. These all represent significant long-term costs to Australia as a nation, and to individuals and families of those afflicted.
4. Failure to allow the discerning public the right to choose raw milk and dairy products could result long-term in the significant loss of human life and health.
5. In this sense, pasteurised milk and milk products may represent a serious liability to public health long-term, just as contaminated raw milk does short-term.
6. Compelling the discerning public to buy only pasteurised dairy products represents a serious future risk to government finances, as they may be held responsible for deliberately enforcing measures which endanger the public health long-term, and not providing other options.
7. Law suits and class actions are very plausible with these considerations in mind.

CAN THE GOVERNMENT AFFORD NOT TO MAKE RAW MILK AND RAW MILK PRODUCTS AVAILABLE TO THE DISCERNING PUBLIC WHO DESIRE IT?

Several other parties have been consulted in the preparation of this FSANZ submission, including dairy farmers, interested consumers, and retailers. They have all been very supportive and encouraging. Several of them would like to have had the time and circumstances that allowed them to make submissions of their own.

Conservatively, I would say that this submission represents weeks of research, writing, and editing. I don't know how I could put a dollar value on something so important, but I suspect I've saved you several hundred thousand dollars of consultancy fees!

I look forward to your response in this area so vitally important to national health.

I look forward to a friendly and co-operative relationship between consumers, producers, government, and industry.

I look forward to the availability of raw milk and raw milk products (both bovine, caprine, and others) for sale for human consumption, which conforms to a government endorsed standard.

Respectfully Submitted,

Kyle Grimshaw-Jones ND

PS: Please find below in different font an excerpt from my submission in response to the RIS from SAFE Food Qld previously referred to in this article:

WE LIVE IN A SOCIETY WHERE HIGHLY TOXIC COMPOUNDS ARE READILY AVAILABLE TO INDIVIDUALS WHO CHOOSE TO HARM THEMSELVES KNOWLEDGEABLY. THIS IS LEGALLY ALLOWED BECAUSE OF CONSUMER DEMAND. THIS SCENARIO INCLUDES CIGARETTES, ALCOHOL,

NON-PRESCRIPTION MEDICATIONS, EVEN GAMBLING FROM CERTAIN POINTS OF VIEW.

YET, WHEN A NICHE-GROUP OF CONSUMERS DECIDE THEY WANT SOMETHING THAT THEY BELIEVE IS CONSTRUCTIVE FOR THEIR HEALTH, SOMETHING THAT COSTS MORE, SOMETHING THAT HAS HEALTH WARNINGS WRITTEN ON IT, AND IN SPITE OF THE AVAILABILITY OF CHEAPER, AND, ACCORDING TO SOME AUTHORITIES "SAFER" COMPETING PRODUCTS, THERE IS AN ATTEMPT TO PUT LAWS INTO PLACE THAT DISREGARD THEIR "RIGHTS AND LIBERTIES".

Comments on the
Regulatory Impact Statement (RIS)

(Food Safety Scheme for Dairy Produce) August **2002**

by Kyle Grimshaw-Jones (N.D., B.App.Sc.(TCM), Dip.App.Sc.(Nat), R.T., Cert (IV) Comm Ser Div-Ther)

Here follows a page by page critique of the above document. It is written in such a format as to be read alongside the RIS itself. The comments are targeted in response to boldfaced areas enclosed in quotes, which are from the original document. Much of the below material is highly critical, and has been hastily prepared in order to meet the time frame required. The referencing has been reasonably thoroughly checked. Please feel free to ask me for any you have trouble with. I note that you have not responded to my email request for ways of accessing the references you have cited in your RIS. Interested consumers would find it difficult if not impossible to access some of the references you have cited.

I apologise for offense caused, but please realise I've pulled no punches and been completely honest with you. I take full responsibility for errors, omissions and inaccuracies of interpretation, and am willing to stand correction. This document represents my views, and understandings at this time.

I hope you appreciate that in a busy modern-day lifestyle, it is difficult to give due and adequate consideration to these matters. This is why we rely on you to do so. I am not overly impressed with the amount of attention you have given to certain areas to date, as outlined below. Please improve or provide me with some evidence you have addressed these areas.

I hope you employ at least as much effort and time responding to each item of consideration I have raised below as I have expended in writing it. The politicians and other third parties I have shown this document to will also, no doubt, be interestedly awaiting your response.

I am grateful I live in a country of such bounty and comparatively high health standards. We can still improve. I remain grateful for the job you are doing on behalf of the public's health.

Respectfully submitted,

Kyle Grimshaw-Jones
(N.D., B.App.Sc.(TCM), Dip.App.Sc.(Nat), R.T., Cert (IV) Comm Ser Div-Ther)
(P.O.Box 494, Oxenford, Qld, 4210. email:kyle@winshop.com.au)

"explain to the community" –
In actuality it is made available to the community who express interest and ask for it and/or know of its existence, this disadvantages those people who are

illiterate or simply uninformed of the political process underway **"must be in writing"**
This once again disadvantages illiterate people, uninformed people, and those who have difficulty expressing themselves in written form "should not restrict competition unless, the objectives of the legislation can only be achieved by restricting competition".
In other words the legislation's objectives are more important than free competition - *this is not democratic* "should not restrict competition unless the benefits of the restriction to the community as a whole outweigh the costs", and just who is to determine the benefits to the community as a whole?
The burden of proof here and the way of determining must be considered very seriously.

"this RIS also addresses these issues"
I fail to see where in this **30** page document these issues are properly addressed, Small Independant Dairy Farmers and Raw bovine milk consumers are marginalized";

- addresses food safety as a core requirement in food production"
- a very just cause where it does not disregard people's freedom of choice

"These Schemes will be implemented through close co-operation between Government agencies and businesses engaged in the food industry"

- I see no respect demonstrated here for consumer demand, consumer's rights, or small independant dairy farmers "adopt the principles of the Model Food legislation and standards developed by ANZFA..."
- Unpasteurised dairy produce is allowed for in the ANZFA standard H1, where state law expressly allows it (hlink: http://www.foodstandards.gov.au/standardsdevelopment/ol.../h1milkandliquidmilkp715.cf states "(11) Save where the applicable law of a State or Territory otherwise expressly provides, milk that has not been processed in accordance with clause (4) of this Standard shall not be sold for consumption by man"), as long as it meets certain microbial and other standards

"This system replaced end-point inspection of product with preventative measures such as quality assurance systems for ensuring safety and hygiene in the production, processing and marketing chain."
- Pasteurisation is an end stage procedure in the chain of milk production.

A quality assurance system that encompassed all the steps along the chain would be more in keeping with HACCP protocol. Therefore, the fertilization of the soil, the feed of the dairy herd, the health of the dairy herd (intestinal microbiological balance), the health of those in contact with the herd and the milk, the health and living/housing conditions of the herd itself, the cleaning and maintenance of the milking machinery, and the milk produced should all meet certain standards. Having lax standards in any of these areas, and simply adding pasteurisation as an end-stage treatment is not in keeping with HACCP

protocol, and certainly does not "provide continuity of controls throughout the food chain". The food chain starts in the soil.

"fit for human consumption"
- this clearly does not need to apply to pet's milk does it?
- how is "fit"ness to be established?
I contend that merely meeting certain microbial standards is not adequate to make it "fit".
The health of the original cows, and their feed, is necessary to guarantee healthy milk.
Long-term effects on the health of individuals and society as a whole must be considered as well as short-term bacterial considerations. A longer-term health view makes pasteurised milk appear less and less "fit" for human or animal consumption. (re: Pottenger's Cats - The Original Study in Animal and Human Nutrition (Francis M. Pottenger, Jr., MD), The Pottenger Cat Studies (video), Effect of Heat Processed Foods on Animals (Francis M. Pottenger, Jr.,
MD), Lancet 21/3/31, pp 662-667, "Relative Value of Raw and Heated Milk in Nutrition", Lancet 8/5/37, pp1141-1143, "Milk Pasteurisation", etc.)
Calves, kittens, pups and rats can not be raised properly on pasteurised milk, without significant dietary supplementation. It's enzyme content has been largely destroyed along with several other degenerative changes in nutrient content.
I personally know a farmer who had 52 calves die after feeding them pasteurised milk for three weeks. Pottenger's investigations with cats has shown degeneration and inability to reproduce after the third generation, in cats fed a diet with pasteurised milk. Cats are not humans, and the studies were done a long time ago, and are sometimes overemphasises, and misrepresented/distorted. Cats do have different nutritional needs than humans, and possibly could be bred successfully on a diet containing pasteurised milk if certain nutritional factors were supplemented adequately or provided in other foods. The fact, however, remains, that the heat-treated diets, when fed to cats, produced progressive degeneration of their health, while the same diets raw did not. Therefore, PET'S MILK MUST NOT BE PASTEURISED. Authorities who seek to continue to limit the availability of microbially safe, raw, unpasteurised bovine milk for human consumption should consider potential future litigation from consumers with reproductive problems and other health problems, including dental diseases, and heart and circulatory disorders. Class actions are not discountable as possible future scenarios in this arena.

"consistency of approach with ANZFA food standards"
- as already mentioned, these allow for lawful provision of raw (unpasteurised) dairy products where state law allows it and where the produce meets certain criteria, including microbial limits (hlink:
http://www.foodstandards.gov.au/standardsdevelopment/ol.../h1milkandliquidmilkp715.cf)

"seamless through-chain approach"
- once again, pasteurisation is an end-stage approach, which can be used to cover up (disguise) lack of diligence in adherence to reasonable standards in a proper through-chain approach "risk profile of the industry"
- some of the risks in this industry are likely to be owing to standard codes of practice. For example, if faecal contamination of milk, or secretion of unhealthy bacteria from the apparently healthy cow itself is claimed as the cause of the risk, then what is the cause of that? Potential causes include: not enough pasture feeding, excess grain feeding, urea in feed, imbalance of cow's intestinal microbiology from daily ingestion of feed-antibiotics, feeding on NPK or superphosphate-fertilised grass or grain, (with higher-than-natural ammonium ion concentration), feeding on grain treated with weevil-killing insecticide (malathion or other). These are all basic problems that need deep consideration, and yet are not acknowledged as such by either the DPI or Safe Food. A farmer following normal standards who does not know any better, will likely do any and all of these, perhaps even based on recommendations from the Department of Primary Industries.
The Food Safety Scheme starts where the DPI recommendations leave off.
This is too late in the process, and is not a proper though-chain approach.
There is a fundamental problem here with this separation - the chain is broken.
Excess grain-feeding causes acidosis which increases transit of unfriendly microbes from the cow's gut into its bloodstream, and changes its intestinal microbiology, predisposing to the risk factors mentioned above.
Daily ingestion of feed antibiotics has similar detrimental health effects.
Simply put, it produces a cow that is sometimes, "apparently healthy" but actually is quite sick.

According to Julius Hensel, in his book "Bread from Stones: A New and Rational System of Land Fertilization and Physical Regeneration" (1991, Acres U.S.A., pp 50-51): "Plants need potassa, soda, lime, magnesia, iron, manganese, sulfur, phosphorus and luroine, and in the artificial fertilizers they only received expensive potassa, phosphoric acid and nitrogen for their nourishment...nitrogenous fertilizers in the form of Chili-nitre have caused a predominance of cattle diseases. That hares and deer have been found dead in numbers in places which had been fertilized with Chili-nitre I have read in at least twenty newspapers, and it has also been reported to me by eye-witnesses. As in the open air so also in the stables. No normal animal bodily substance can be formed from fodder manured with nitrogen, especially no wholesome milk equal to that from cows feeding on mountain herbs...It is not to be computed how great an injury to health with men and animals has been caused by stable manure. Milk produced from ammoniacal plants paved the way by which the destructive spirit diphtheria has swooped down after measles, scarlatina, scrofula, pneumonia had become the familiar companions of the Germans, who before were strong as bears. Artificial manure at last put the crown on this work of destruction."

"targeting appropriate areas of control"
- once again, the control must start with the soil and its fertilisation, and incorporate many basic risk factors which it currently does not, as mentioned above. Small Independent Dairy Farmers who produce according to sustainable, organic principals and niche-consumer groups who honour these practises and desire the products from it, will be marginalised unless these differences are appreciated. Simply put, many health risks claimed from raw dairy products are owing to inappropriate soil fertilisation and feeding of the cow, including daily feed-antibiotic ingestion, urea feeding, ingestion of malathion or other-weevil-killing-insecticide, and ingestion of ammoniacal plant foods and excess grain. Organic producers should be given special support and consideration, as they have already minimized dramatically many of these health risks which affect dramatically the final healthfulness of the dairy products.

"In 1993, the QDA changed the dairy industry's food safety focus from that of a traditional end-product inspection and testing based approach to one of quality assurance based on Hazard Analysis Critical Control Point (HACCP) principles. HACCP is based on a preventative rather than reactive approach to food safety issues"

- As already mentioned - end-stage pasteurisation is NOT consistent with this protocol. Perfectly healthy milk (from BOTH a long and short-term view of consumer health) can be produced without a need for end-stage pasteurisation, providing proper production protocols are followed, including proper soil and feed fertilisation, herd management, worker health, equipment cleaning and maintenance, milking procedures, etc.

"co-operative national system of food regulation"
- there is a danger here that vested interests in the industry with more money, power, and political influence could indirectly steer the system to deliberately dominate the market place and disadvantage niche consumer groups and small independent farmers, particularly organic producers.

"minimum requirements of the Food Safety Standards" can be met without end-stage pasteurisation. "Equivalent outcomes will be achieved" by proper HACCP protocols being adhered to. Longer-term considerations should be represented in the national standards. Certain nutrients in foods are not heat stable and are thus destroyed by pasteurisation. The long-term ingestion of heat-altered foods has long-term health effects on animals, and humans, including infertility, dental problems, and other degenerative conditions. The national standards should represent this long-term view as well as its current views.

"seamless through-chain regulatory management approach"
- why pay lipservice to this concept while continuing to use end-stage pasteurisation instead of adopting proper HACCP protocols which obviate the need for it?

"to ensure that the production of primary produce is carried out in a way that makes the primary produce fit for human or animal consumption and maintains food quality"
- once again, the view of "fit" must incorporate long-term health considerations as outlined above, and the "production" must include considerations of cow intestinal microbiology, feed and soil fertilisation, and others as mentioned above. In the case of pet's milk for animal consumption, no prize pedigree dog breeder is going to want his pups acquiring degenerative conditions and becoming infertile as a result of consuming heat-treated foods. Therefore, under no circumstances should pet's milk be pasteurised.

"to produce food safety measures for the production of primary produce consistent with other State laws relating to food safety"
- other states allow the production and sale of raw milk
"The proposed regulation is risk and evidence-based"
- Where is the evidence that pasteurisation is effective as a control measure to guarantee the delivery of microbially safe milk to consumers? Bear in mind that there have been many cases of outbreaks in the US from pasteurised milk and milk products, and not one confirmed report from "certified raw milk" in California, US (hlink: http://www.realmilk.com/foodborne.html). This proves that properly produced raw (unpasteurised) milk is safer than milk produced without the adoption of HACCP-type procedures in a true through-chain approach.
- The reports of disease outbreaks from unpasteurised milk, are sometimes flawed or narrow in their consideration. Many of them, if not all, seem to show nothing more than unhealthy milk full of pus from unhealthy cows, can make people sick. This is not a debatable point - we need healthy milk.
Some factors they almost consistently fail to address are:
(i) ingestion of feed-antibiotics by cows, and their effect on final milk quality, cow's immune system, and cow intestinal flora;
(ii) difference between free-ranging non-ammoniacal-pasture-fed cows and grain-fed cows with acidosis and intestinal microbiological imbalance;
(iii) effects of ingestion of insecticide-treated grain (for weevil-killing) on intestinal microbiology of cow and final milk produced;
(iv) content in the milk of urea, and other nitrogen compounds and its relationship to cow feeding, soil fertilisation, and final microbial tendencies of the milk;
(v) the effect that cow feeding of ammoniacal feed has on final milk produced;
(vi) the effects grain-feeding-induced-acidosis has on bacterial balance of cows intestines and on final milk produced;
(vii) the long-term effects on the immune system of the cow from daily antibiotic ingestion in its feed, and the increase in risk associated with the final milk produced as a result of this;
(viii) the effects of excess stocking rate, crowding on animal health.

BOTTOM LINE - WE NEED HEALTHY COWS, RAISED ON HEALTHY FEED FROM HEALTHY SOIL IN HEALTHY CONDITIONS, WITH HEALTHY

INTESTINAL FLORA AND HEALTHY MILK, THAT CAN STAY HEALTHY WITHOUT EXCESSIVE DEPENDENCY ON DRUGS.

- Where is the evidence that pasteurised milk doesn't produce similar degenerative long-term effects in humans as it does in ALL other species that have been investigated?

"Compliance with the regulations will require each accreditation holder to develop their own science-based and risk-management Programs"
- "science-based" programs can be prohibitively costly to small independent farmers, and the insistence on this type of measure without the formation of funding bodies to support small independent farmers in catering to niche consumer demands is to disadvantage these groups unfairly. In Wisconsin in the US four dairy farms per day go out of business, due to rising costs and reduced revenues for liquid milk. If the development of these "science-based and risk-management Programs" is not assisted appropriately, a similar situation could occur in Australia. Help save family farms. Do not create a situation that disadvantages niche consumer groups and "little men", and favours major processors who can cut payments to farmers, forcing many into bankruptcy, potentially. It if for this reason that contractual arrangements such as cow-share agreements, and various other means are being employed by these farmers and interested educated consumers. These niche consumer groups and small producers are fighting back for their rights to exist and live the life they choose in this democracy of ours. New legislation should support small producers and niche-consumer groups to obtain what they desire lawfully and safely. This is possible, although large industry interests may not be supportive of this idea, and may even resort to propaganda to emotionally influence decision-making in this area. An example of this occurred in Wisconsin, US, where a Campylobacter outbreak was falsely blamed on raw milk. The basic summary of this event is available on http://realmilk.com/pr_071402.html.

- Rather than a persecutionist, critical attitude to raw milk producers, a supportive, assistive role can be emphasised on the part of the authorities.

"minimise the risk of serious food-borne illness, which could potentially result in the loss of human life"
- a noble sentiment from short-term acute-disease-outbreak point of view - has any serious risk assessment been done that incorporates deeper considerations of soil fertilisation, cow feeding, urea and nitrogen concentrations in soil, cow feed, cow, and cow milk, and final risk microbially of milk produced? I think not. The main problem here is the separation of the "through chain approach" because of the separate areas the DPI and Safe Food address. FINAL MILK QUALITY AND SAFETY IS GREATLY AFFECTED BY SOIL HEALTH, AND COW HEALTH.
- but what about the long-term view of the population's health? What about the degenerative effects of pasteurised milk?

"This is achieved by maintaining the level of control over the physical, microbiological and contamination status of dairy products"
- a glaring omission here is the nutrient status of the dairy product and its long-term effects on consumer/population health. Pasteurisation destroys enzymes like lipase (involved in fat digestion), lactase (involved in lactose digestion), phophatase (involved in calcium absorption), Vitamins B1, B6, B12, and other nutrients, and thus alters the nutritive qualities of the milk for the worse. The policy objective should be not only to stop acute illness outbreaks by ensuring a product of a certain microbial standard, but also to foster and support the long-term health of consumers and the community as a whole. WE SHOULD BE HERE TO NURTURE LONG-TERM HEALTH, AS WELL AS TO PREVENT UNNECESSARY ACUTE DISEASE.

"minimise the cost of regulatory activities to the dairy industry"
- who? major processors, or small independant farmers?
"straightforward for industry to apply"
- really? how? hopefully not by setting requirements that are financially impossible for small producers to meet. This is why a funding body needs to be established to support small farmers.
"equitable" - equitable for whom? for everyone except who it is not equitable for? This should not be a term that lip-service is payed to with nothing real actually done to achieve it. Small independant farmers, particularly those who operate according to sustainable organic principles, must be supported and niche-consumer groups must be honoured

"consistent with the other states"
- Raw milk is available in several other states, and raw goats milk is available in Qld "efficient" (This was the case when this article was put together)
- and just how will efficiency be achieved and demonstrated?
"flexible"
- this means that producers of milk who meet reasonable standards should be allowed to produce milk without end-stage pasteurisation, as is allowed for by the national guidelines of ANZFA
"Compliance with the regulation is aimed at small, medium and large businesses"
- it may be aimed at small producers who are willing to have their pricing structures dictated by large processors, but DOES IT SUPPORT SMALL PRODUCERS WHO WISH TO MEET THE STANDARDS INDEPENDENT OF LARGE PROCESSORS? If it doesn't do this then how should we describe it? Perhaps "uncompetitive", "unfair", "inequitable", and "undemocratic" would then be more accurate terms.

"allow a flexible approach to meeting regulatory requirements"
- good, then unnecessary end-stage pasteurisation can be avoided AS LONG AS REASONABLE MICROBIAL AND OTHER STANDARDS ARE PROPERLY MET

"accrediting the persons involved"
- It is extremely important that fees are not so high that small independent farmers are disadvantaged. This is why a funding body should be established, and every effort should be made to ensure support for small farmers, and to save family farms.

"managing the implementation"
- this should be from a supportive, constructive, advisory, and educational position, NOT a persecutionistic, arrogant, unsupportive, highly critical, and obstructive position. Small producers, retailers, and consumers do not need or appreciate having a constant feeling of "big brother breathing down their necks".

"supervising food safety auditing"
- once again, constructive, supportive, advisory "enforcement role"
- only after reasonable support (funding), education, and advice has been tendered. Placing unreasonably costly requirements on farmers could end up being a very effective mechanism for forcing small farmers out of business unfairly. A government subsidised program for farmer education and soil, feed, milk and procedural testing could be established. This would help to save farmers from the exorbitant expense of frequent microbial milk tests. This would also create jobs, as someone has to enact the increased level of testing required.

"regulate the production of primary produce from paddock to manufacturing"
- why pay lip service to this, whilst intending to rely on pasteurization as an end-stage treatment. If milk is produced properly and attentively throughout each critical control point, then there is no need for end-stage pasteurisation. Once again, soil health, cow health, cow feeding and cow intestinal microbiological status must all be considered. Particularly these points should be considered, as mentioned above:
(i) ingestion of feed-antibiotics by cows, and their effect on final milk quality, cow's immune system, and cow intestinal flora;
(ii) difference between free-ranging non-ammoniacal-pasture-fed cows and grain-fed cows with acidosis and intestinal microbiological imbalance;
(iii) effects of ingestion of insecticide-treated grain (for weevil-killing) on intestinal microbiology of cow and final milk produced;
(iv) content in the milk of urea, and other nitrogen compounds and its relationship to cow feeding, soil fertilisation, and final microbial tendencies of the milk;
(v) the effect that cow feeding of ammoniacal feed has on final milk produced;
(vi) the effects grain-feeding-induced-acidosis has on bacterial balance of cows intestines and on final milk produced;
(vii) the long-term effects on the immune system of the cow from daily antibiotic ingestion in its feed, and the increase in risk associated with the final milk produced as a result of this;
(viii) the effects of excess stocking rate, crowding on animal health.

"the Scheme for dairy will not include...:
"retailing dairy produce, other than pet food"
- and just why should pet food be in a separate category? Why should retailers who choose to make pet food available be penalised?

"the Scheme for dairy will not include...:
"producing milk of a goat where such milk is not sent to a factory. This provision applies if a producer complies with the criteria specified in the proposed FSS for Dairy Produce"
- A similar allowance can be made for cow's milk
- Some people believe that cow's contaminate their udders with faecal and soil material more than goats do, therefore raw cow's milk is unsafe. The solution is very simple - clean the teats before milking. Additionally, the effects on the intestinal microbiology and the immune system of the cow of the various factors listed above should be carefully considered. In case you missed them, here they are again:
(i) ingestion of feed-antibiotics by cows, and their effect on final milk quality, the cow's immune system and cow intestinal flora;
(ii) difference between free-ranging non-ammoniacal-pasture-fed cows and grain-fed cows with acidosis and intestinal microbiological imbalance;
(iii) effects of ingestion of insecticide-treated grain (for weevil-killing) on intestinal microbiology of cow and final milk produced;
(iv) content in the milk of urea, and other nitrogen compounds and its relationship to cow feeding, soil fertilisation, and final microbial tendencies of the milk;
(v) the effect that cow feeding of ammoniacal feed has on final milk produced;
(vi) the effects grain-feeding-induced-acidosis has on bacterial balance of cows intestines and on final milk produced;
(vii) the long-term effects on the immune system of the cow from daily antibiotic ingestion in its feed, and the increase in risk associated with the final milk produced as a result of this;
(viii) the effects of excess stocking rate, crowding on animal health.

Microbially safe raw cow's milk can be produced when proper codes of practice are followed.

- Direct dealing from farmer to consumer should be encouraged, and all assistance given to the farmer to achieve acceptable health standards aspects of primary production covered under the Scheme include:

"(h) processing dairy produce for human and animal consumption (pet food)"
- To be consistent with an "evidence-based" approach which has been espoused, I suggest that Safe Food be required to produce evidence of danger to animal health from pet's milk as it is currently produced. Some real case histories should be required. Furthermore, long-term effects on animal health should be considered in any standards that are set. Pasteurised milk is completely unacceptable as pet food, as it has been shown to produce physical

degeneration and infertility. Baby calves sicken and die within three weeks from pasteurised-milk feeding, even after receiving the colostrum from their mothers for a week previous to the commencement of pasteurised-milk feeding.

"...required to submit a food safety program..."
- full assistance should be given to small independant farmers, who are sometimes poor, overworked, underpaid, intensely busy, and not necessarily familiar with such procedures. Education, advice, support, and a supportive, emotionally encouraging attitude should be evidenced by SFPQ and third party auditors in this regard.

"suitably qualified third party auditor"
- government funding can be channelled to small independent farmers to allow them to meet the costs of third party auditing.

"Regulations"
- These have been diagrammatically represented under the Food Production (Safety) Act 2000. There is a danger here in the formation of regulations, where true community consultation may not really occur, even though lip service is paid to the concept. Also, regulations are, to my knowledge, signed off on by one or two ministers, with the director-general. They are not voted on by parliament en masse. Since the consumer demands of multiple electorates are involved in this type of legally-enforceable standards formation, I believe that it should be presented to Qld parliament en masse, and given full and exhaustive consideration by all members.

"Consistency with other Legislation"
- If it be so shown and duly considered that certain previous attitudes and standards were in error, then deciding to be consistent in these areas with already existing legislation becomes a barrier to effective policy formation and enactment. "Consistency" does not necessarily mean that newcomers must "follow the pack". It is acceptable and reasonable where new factors are considered that new policies that differ from existing legislation may be formed. "Consistency" for its own sake can be pointless and dangerous.

"Legislative Standards Act 1992...legislation will have sufficient regard to the rights and liberties of individuals and the institution of Parliament"
- So if a group of say, 600 individuals all decide that they wish to purchase raw (unpasteurised) milk and a small independent farmer wishes to produce it, then the legislation will have built within in allowances for this to be able
to occur. If it does not, then it is not having "sufficient regard" at all. WE LIVE IN A SOCIETY WHERE HIGHLY TOXIC COMPOUNDS ARE READILY AVAILABLE TO INDIVIDUALS WHO CHOOSE TO HARM THEMSELVES KNOWLEDGEABLY. THIS IS LEGALLY ALLOWED BECAUSE OF CONSUMER DEMAND. THIS SCENARIO INCLUDES CIGARETTES,

ALCOHOL, NON-PRESCRIPTION MEDICATIONS, EVEN GAMBLING FROM CERTAIN POINTS OF VIEW.

YET, WHEN A NICHE-GROUP OF CONSUMERS DECIDE THEY WANT SOMETHING THAT THEY BELIEVE IS CONSTRUCTIVE FOR THEIR HEALTH, SOMETHING THAT COSTS MORE, SOMETHING THAT HAS HEALTH WARNINGS WRITTEN ON IT, AND IN SPITE OF THE AVAILABILITY OF CHEAPER, AND, ACCORDING TO SOME AUTHORITIES "SAFER" COMPETING PRODUCTS, THERE IS AN ATTEMPT TO PUT LAWS INTO PLACE THAT DISREGARD THEIR "RIGHTS AND LIBERTIES".

"moving to third party auditing - promoting competition in the market place"
- and exactly how does this promote competition? and in what market place?
The availability of microbially safe, raw (unpasteurised) milk would expand the milk market, and very likely benefit the health of many consumers, from a long-term nutritional point of view.

"Participants, at all levels, are being treated the same"
- this is inequitable if the costs involved are prohibitive to small independent farmers. This is why a funding body and appropriate policies should be instigated to support small independent farmers.

"Industry responsible for ensuring that their programs comply with the Scheme."
- I have an alternative principle to offer. Government responsible for financial assistance, education, advice, and support to industry, aiding it in its compliance with the scheme.

"The proposed regulations are not anti-competitive (i.e. no unreasonable restriction placed on new entrants.)"
- if costs are prohibitive and small independent farmers are forced out of business, then that would be "anti-competitive"
-

"Risk Analysis."
It is true that milk and dairy products are perishable and susceptible to contamination. There are multiple considerations here. Take a container of clean raw milk. Leave it sealed on the kitchen bench for a week. It will separate into fermented curds, whey, and cream. It will smell sour as a result of having undergone lactic fermentation. The resultant type of cultured food has been consumed for thousands of years in many cultures. Some of these cultures have been reported as among the longest-lived on earth. (The nearest equivalent to this type of process and end-product, that we are commonly used to in Australia, is yoghurt production. Some of the cultures that consumed this type of product are among the longest lived in the world.
The lactic bacteria responsible for this fermentation occur naturally in milk and inhibit the growth and eventually destroy other less favourable bacteria in the milk to a considerable extent. Whilst we are not used to cultured foods in

Australia, they are well known in many parts of the world. We may consider this resultant soured milk to be "off", or rotten, but it actually is cultured. The resultant fermented or cultured whey can be used for making lacto-fermented foods like traditional sauerkraut (fermented cabbage).

SOME CONSUMERS WISH TO BE ABLE TO DO THIS!

Now take pasteurised milk from a store. Leave it on the bench for a week, then smell it. Now that is "rotten". It will have undergone putrefaction, and cultured a dominance of non-lactic bacteria that are potentially harmful.
Whilst lactic bacteria produce compounds that stimulate the immune system, inhibit tumour growth, and increased certain nutrient levels in the food, the other putrefactive bacteria can be quite toxic. Pasteurisation destroys the GOOD BENEFICIAL bacteria that occur naturally in healthy milk, and which oppose the growth of bad bacteria. Once pasteurisation has destroyed the good bacteria, the dangerous bacteria can predominate, and this perhaps explains why there have been so many outbreaks from pasteurised milk recorded in the US.

If raw bovine and caprine and other milk is not made available to consumers, then those consumers educated in this area will object to the violation of their rights. People have a right to raw dairy produce, with all nutrients, enzymes, and beneficial bacteria intact. People have a right to use this dairy produce to culture their own traditionally fermented foods. Any laws that claim to have "sufficient regard to the rights and liberties of individuals" must acknowledge this. These consumers can not live the life they would choose to live if they cannot obtain raw dairy produce, especially, milk.

Failing to acknowledge this consumer demand will force both consumers and producers to go underground and will thus create a dangerous situation.
Due to negligence, the government would be failing to provide an official raw milk product that meets certain HACCP protocols and food standards as an option. They would be failing to acknowledge, and fulfil certain consumer demands, and their obligations to public safety.

I am not denying milk is susceptible to contamination, or can become toxic due to certain bacterial agents. And it is true that mass-scale production, processing, and distribution has additional challenges that may even warrant pasteurisation in some instances. But properly produced clean raw (unpasteurised) milk can be made available to the public from small producers (especially those following sustainable organic principles), and can be supplied by farmers to the public safely when certain protocols and codes of practice are in place. This will maintain and create jobs, fulfil niche-consumer demands, save small family farms, expand the milk market, and very likely will improve the long-term overall health of the population.

"This was well illustrated by a milk-borne disease outbreak in Chargo in 1985 where 185,000 people contracted Salmonellosis from contaminated milk distributed by one dairy factory."
- despite requesting, via email, a copy of this referenced point from SAFE food, I have received no response. I notice that it is written in reference 2 as an "Economic Research Service Report" - rather than a medical document.
According to the U.S. Food & Drug Administration, Center for Food Safety & Applied Nutrition, in their pamphlet, "Foodborne Pathogenic Microorganisms and Natural Toxins Handbook", the outbreak involved 16,000 confirmed cases in 6 states. This is a far cry from 185, 000, although it is still a lot of people, and indicates the potential problems from mass distribution of unclean, bacerially contaminated milk.
- This occurrance involved unclean milk in a pasteurisation plant, NOT clean raw milk produced on a small scale and supplied directly or through retail to the public.

"In 1994, over 200, 000 people across the USA contracted Salmonellosis from contaminated ice-cream made in Minnesota and distributed nationally."
- The complete correct reference for this (reference point 3) is The New England Journal of Medicine, Vol 334, May 16, 1996, No.20, pp.1281-1286.
It should be noted that the figure generalised as "over 200, 000" is an extrapolation, not a report of confirmed cases. From the article in question :
"A total of 150 confirmed cases of outbreak-associated salmonellosis were identified in Minnesota. These represented 78 percent of the 192 cases of S. enteritidis infection diagnosed during Sept and Oct 1994..."
- It should be noted that the ice cream in question was pasteurised, and it was cross-contaminated during shipping in tanker trailers that had previously carried raw eggs.
- I find it quite disturbing that no references from within Australia are included here.

"The large quantity of milk and dairy products consumed in Queensland, especially by high-risk groups such as young children, the elderly and the immuno-suppressed, generate a priority need for effective control of food safety risks in the dairy industry."
- It is important that in caring for certain parts of our populus, we are not suppressing the rights of others.
- There is considerable past documented and anecdotal evidence that raw milk has multiple health benefits to these groups also. Certainly, immuno-compromised groups should only have clean raw milk which meets acceptable microbiological standards.
- The following is from the esteemed British medical publication, The Lancet, Vol 353, May 1, 1999, p 1457-1458: "A recent study of Swiss children* has shown that the prevalence of symptoms of sesonal rhinitis and of aeroallergen-specific IgE antibodies is three times lower among the offspring of farmers than among other children in rural Switzerland. This effect was greater for families of full

time farmers than for the offspring of part-time farmers, consistent with a protective influence of "traditional" lifestyle.
One possibility... is that the diet of farming households, which includes a greater proportion of home-grown food and unpasteurised diary produce than that of other households, could influence the early maturation of the immune system through its effects on microbial ecology in the intestines of young infants.**
(*Braun-Fahrlander C, Gassner M, Grize L, et al. Prevalence of hay fever and allergic sensitization in farmer's children and their peers living in the same rural community. Clin Exp Allergy 1999; 29; 28-35
**Bjorksten B. Allergy priming in early life. Lancet 1999; 353; 167-68)
- In other words, raw milk improved their immunity, partly perhaps because of the beneficial bacteria from the milk acting in the children's intestines.
You may recall that these beneficial bacteria are destroyed by pasteurisation.
- Changes in intestinal microflora have been associated with lower rates of eczema and asthma in children in Sweden (Lancet 1999; 353; 1485)
- We may be breeding and raising a large number of people with very weak immune systems by not providing a diet with a reasonable bacterial load for the immune system to exercise itself on.
- "Long-term and early-life exposure to stables and farm milk (boldface mine - "farm" means usually raw, unpasteurised) induces a strong protective effect against development of asthma, hay fever, and atopic sensitisation"..."Farm milk, which is usually raw, contains more gram-negative bacteria*** and thus lipopolysaccharide,**** than pasteurised milk. Therefore, the protective factor associated with consumtion of farm milk could be associated with ingestion of non-infectious microbial components, with resultant changes to the commensal gut flora, or both." (Lancet 2001; 358; 1129-33)
(***Kilewein G. Leitfaden der Milchkunde und Milchhygiene. Berlin:
Blackwell Wissenschaftsverlag, 1995: 83-85
****Suhren %, Hesselbarth H, HEeschen W, Sudi JI. Evaluation of the lipopolysaccharide (LPS) content as determined by the limulus test in milk and milk products II: raw milk and influences of technological procedures.
Milchwissenschaft 1986; 41: 156-60.)
- Studies show that:
* children fed raw milk have more resistance to tuberculosis and other infections and less tendency to chilblains and tooth decay, than children fed pasteurized milk (Lancet, p 1142, 5/8/37)
* that raw milk is very effective in preventing scurvy and protecting against flu, diphtheria and pneumonia (Am J Dis Child, Nov 1917)
* that raw milk is better than pasteurized milk in promoting growth and calcium absorption (Ohio Agricultural Experiment Station Bulletin 518, p 8, 1/33)
* that a substance in raw cream (but NOT in pasteurised cream) prevents joint stiffness and the pain of arthritis (Annual Review of Biochemistry, 18:435, 1944).

- Also consider, that pasteurisation produces changes in the proteins and fats in the milk. Studies have implicated heated milk protein with the causation of atherosclerosis (Annand JC (1971) "The case against milk protein."

Atherosclerosis, vol.13, p.137, Annand JC (1972) "Further evidence in the case against heated milk protein." Atherosclerosis, vol.15, no.1 (Jan.), pp. 129-133, Annand JC (1986) "Denatured bovine immunoglobulin pathogenic in atherosclerosis." Atherosclerosis, vol. 59, no. 3 (Mar.), pp. 347-351)).
Other authors have pointed out that the heated-milk lipids (fats) undergo oxidation, and that oxidized lipids in milk have been implicated, also, with the development of atherosclerosis. With this in mind, pasteurised milk appears more and more to be a significant long-term "food-safety risk".

- So while clean raw milk confers many health benefits, we would do well to ensure it is clean, and meets acceptable microbiological limits in alignment with the national standards. Even having done so, if a farmer's neighbour wants to drink the farmers milk, and is prepared to exchange money for it, what right have we to stop him/her?
- Especially considering we live in a society where any adult can go and purchase off the shelf pain relievers that cause micro-hemorrhages in their stomach, or cigarettes which cause lung problems, or alcohol, and its associate degenerate problems. Not only that, but any adult who does any of those things can also expose their children to the negative effects of it.
I point this out, as this is an argument often brought up with regards to raw milk being made available to the public. The problem disappears of course when raw milk is available which is clean and microbially meets certain standards. But even if it doesn't, or isn't guaranteed to, don't we live in a society that honours consumer demand and freedom of choice? Aren't children continually exposed to the lifestyles of their parents?

- It should also be noted that pasteurisation is not a guarantee as to milk's microbial safety. "These results support the hypothesis that human listeriosis can be a foodborne disease and raise questions about the ability of pasteurization to eradicate a large inoculum of L. monocytogenes from contaminated raw milk." ("Pasteurized Milk as a Vehicle of Infection in an Outbreak of Listeriosis" The New England Journal of Medicine; 1985; 312: 404-7)
The solution is to ensure that all the cows in the herd are free of this type of infection, and their udders are properly cleaned. Pregnant women are currently warned not to drink raw milk in case they contract listeriosis and have spontaneous abortion. The irony is that pasteurised milk can contain it also, as evidenced by this study, and the proper solution is to ensure healthy cows that are free of this problem (listeric mastitis), and to ensure clean raw (unpasteurised) milk that meets proper standards of production.

- Incidentally, according to the California Dairy Research Foundation:
"Fluid Milk 1998 97-CAR-01
Development of a Fluorescent 5' Nuclease PCR Assay For The Rapid Detection of Listeria spp. in Dairy Plant Environmental Samples Principal Investigator:
Raul J. Cano, Cal Poly San Luis Obispo
EXECUTIVE SUMMARY:

The dairy industry has lost millions of dollars from product recalls due to the contamination of dairy products with Listeria monocytogenes.
Post-pasteurization contamination from environmental sources in dairy plants has been shown to be the primary method of contamination of dairy products with Listeria spp. (boldface mine) Routine testing of plant environments for Listeria spp. would be beneficial in identifying areas in which contamination of raw, intermediate and final dairy products could occur, and aid in the removal of this organism as a threat to final product integrity. In order for this type of assay to benefit the dairy industry it should be rapid, easy to use and accurate in identifying problems or areas of risk within a dairy plant environment."
- so keep your factories clean if you want to control Listeria, as that is the primary source of problems
- there are natural factors in raw milk that inhibit the growth of pathogenic bacteria. Mark McAfee, the owner of Organic Pastures Dairy, in Santa Monica, US, recently talked about some tests done (I think at UC Davis) where live staph. bacteria was put directly into fresh raw milk; in some of the test tubes, bacteria count went down slightly, in others, it went down drastically, but it never went up
- showing how raw milk does not support the growth of pathogenic bacteria, as does pasteurized milk.

- It is relevant to discuss briefly the work of Julius Hensel from the late 1800's, in his book, "Bread from Stones. He observed that cows which grazed on fields that had been treated with NPK fertiliser (nitrogen, phosphate, potassium) were responsible for passing on diphtheria to the people which drank their milk, whilst cows over the hill on untreated fields were not. He contended that on NPK-treated fields, positively charged ammonium ions were substituting for positively charged mineral elements in the tissue-matrix of the grass the cows were eating, and thus altering the biochemistry of the cow (making it more ammoniacal), its milk, and the humans that drank it. It is possible that this alteration of biochemistry may predispose to the dominant growth of one type of organism or another in a cow's gut, blood, and milk, and the people who drink its milk. (Certainly, sauerkraut made from non-NPK-fertilised soil cabbages smells different once fermented than sauerkraut made from NPK-fertilised soil cabbages.) I do not know of any modern studies that have investigated this (although modern studies HAVE been done with respect to feeding of UREA to cattle, a harmful practice), but the basic point I am trying to make is that even the feeding of the soil, which feeds the plants which feeds the cows which feeds us, must be considered. Anything that affects the cow can affect the milk. This suddenly, potentially, places those farmers who manage their soil according to sustainable organic principles into a different category than others, with regards to milk production. (Perhaps this is how some farmers succeed in maintaining healthy stock with healthy immune systems and never need to use antibiotics for decades together.)

"The presence of pathogens in raw milk has been traced to a number of causes, including contamination of milk from cattle faeces, excretion of the organism from

the udders of apparently healthy cows, and from the failure to prevent or to detect the presence of pathogens due to poor farm management systems or production methods."

- Each one of these points represents what is termed, a "critical control point" in HACCP terminology. Each is a potential hazard and require critical-limit determination, monitoring, and if necessary, correction. The point is, all of these factors should be individually and assiduously addressed. End-stage pasteurisation does not address the basic issues, and if they are addressed properly, pasteurisation is unnecesary to produce a safe, clean milk supply.
I can accept that the situation gets far more difficult when multiple processes or storage, intermachine movement, multiple shipping, and reprocessing are involved, and perhaps pasteurisation may be necessary with these added difficulties. This is why DIRECT DEALING, small scale production, and non-factory processing of the milk are desirable.
- If you raise truly heathy cows, and if you test the cow's blood and body tissues at regular intervals, and find that it is free of a pathogenic bacterial infection, and you test its milk at regular intervals, just to be safe (and for post-secretive bacterial contamination testing), then the "excretion of the organism from the udders of apparently healthy cows", is not going to be a problem or compromise the food supply. Additionally, the factors mentioned above and below should be considered with regard to the health of cows and their milk:
(i) ingestion of feed-antibiotics by cows, and their effect on final milk quality, cow's immune system, and cow intestinal flora;
(ii) difference between free-ranging non-ammoniacal-pasture-fed cows and grain-fed cows with acidosis and intestinal microbiological imbalance;
(iii) effects of ingestion of insecticide-treated grain (for weevil-killing) on intestinal microbiology of cow and final milk produced;
(iv) content in the milk of urea, and other nitrogen compounds and its relationship to cow feeding, soil fertilisation, and final microbial tendencies of the milk;
(v) the effect that cow feeding of ammoniacal feed has on final milk produced;
(vi) the effects grain-feeding-induced-acidosis has on bacterial balance of cows intestines and on final milk produced;
(vii) the long-term effects on the immune system of the cow from daily antibiotic ingestion in its feed, and the increase in risk associated with the final milk produced as a result of this;
(viii) the effects of excess stocking rate, crowding on animal health.

- consider also the conclusion in "Testing of Probiotic Bacteria for the Elimination of Escherichia coli O157:H7 in Cattle" by Mindy Brashears and Michael Galyean: "Based on these observations, supplementing cattle with certain probiotic cultures (two strains of Lactobacillus acidophilus; NPC 747 and NPC 750) decreases the incidence of E. coli O157:H7 in the feces of finishing beef cattle." These are an example of the types of bacteria that are killed by feed antibiotics. So, put simply, feed a cow antibiotics and you kill the friendly bacteria in its guts, whose job it is to normally control other bad bacteria and stop them from

overgrowing. This must be of great importance if faeces are seen as the major contaminating factor for dairy milk.

- Farmers should be given maximum possible assistance to establish and maintain good farm management systems and production protocols/methods. The establishment of a funding body with government subsidisation for farmers, especially small independant farmers, to aid them in meeting necessary health requirements is highly recommended.

"The development of extended shelf-life products has increased risks from the growth of certain types of pathogenic organisms...Consequently, it is considered even more important to eliminate, as far as is reasonably practicable, the presence of microbiological pathogens in milk and milk products intended for human consumption."
- "Eliminat"ion is not really what is important. What is important is to control the whole system so that there are none to eliminate. If there are some to eliminate there is something wrong with the system. The way to do this is by attending to all hazard control points and ensuring healthy soil, feed, animals, and people! End-stage pasteurisation in small scale production is a type of cop-out proving that other hazard control points were not properly addressed. Small herds on fertile pasture or appropriate feed, regular testing, clean barns, milking machines, stainless steel tanks and refrigerated trucks all make it entirely possible to get healthy, clean, certified raw milk to the public. Large scale factory production may be a different matter, owing to the difficulties already discussed.

It is excellent that mycotoxins in milk, and antimicrobial and organochloride/organophosphate have been mentioned here - I am impressed!

I am impressed that "antibiotic resistance in human pathogens" has been mentioned.

"Trends in diseases attributed to milk and dairy products show a large number of outbreaks in the years up to the end of World War II, followed by a dramatic decrease after the general introduction of pasteurisation.
This represented a great advancement in food safety of milk and dairy products, and highlighted the positive effects of regulatory control."

- This is an unreferenced statement. If it's true, it should be referenced. I require proof - in fact I demand it. Please prove this statement to me and show me the actual data you are basing this statement on. If this is true, and a causative relationship has been carefully established, this would not surprise me. Pasteurisation has been shown to be effective in other countries at other times. If you have dirty milk, and you kill a lot of the bugs in it, then probably less people will get sick. But if you have clean milk and you pasteurise it, then you've wasted time, effort, energy, and resources, and some of the nutrients in the milk have been compromised completely unnecessarily, with the associated potential

ill effects on the long- term health of the population. Once again, if you're making dirty milk, then you need to make clean milk and correct the whole system stage by stage.
Pasteurisation should not be necessary in small scale production that doesn't involve big factories. If it seems to be, there is a problem with the system.

"In Australia, notification rates for the common food-borne illnesses Campylobacteriosis and Salmonellosis have continued to increase."
- Interestingly enough the article referenced here from the Medical Journal of Australia, has a table of "specific food vehicles implicated in foodborne outbreaks in Australia , 1980-1995". This table has categories of foods, pathogenic micro-organisms, and number of outbreaks. The food categories are: Meat, Seafood, Poultry, Eggs, Salad/Vegies, Multiple Foods, Miscellaneous. You may notice that there is no category for dairy products.
There were 72 outbreaks in total. Included in Miscellaneous was 2 deep-fried ice cream outbreaks. But that is all for dairy. Raw milk isn't mentioned, and neither is pasteurised milk - Milk isn't even mentioned. So we see that out of 72 outbreaks from 1980-1995, not one was related to milk. It's enough to make me think that all this concern over raw milk is a little misplaced, and perhaps the 21 outbreaks from meat, the 21 outbreaks from seafood, and the 12 outbreaks from salad/vegies warrant considerably more attention?!

- Furthermore, a list of Qld Health foodborne illness investigations (1995-2001) contains 106 items. Out of these, there is only one incident, involving Cryptosporidium parvum, which was suspected to have been allowed to contaminate raw cows milk, Aug 2001. 6 people were recorded as "ill" from the incident, and nobody died. IT IS EASY TO TEST FOR CRYPTOSPORIDIUM AND EXCLUDE IT FROM CONTAMINATING MILK.
Discussion with third parties about this incident has indicated that it actually may have been caused by contaminated water, and milk may have had nothing to do with it.

- I have spoken with farmers who supplied raw milk for years, and never heard of one case of anyone being sick. Bear in mind that these farmers consume their own milk on a daily basis themselves. However, I do agree, that care is needed with immuno-compromised patients.

- There are dairies which have supplied raw milk for many years, and do not have even one confirmed case of a person becoming sick from consuming their products. It would be wise to model the practices of these dairies in formulating a proper code of practice for raw dairy production in Qld.
Please refer to hlink: http.//www.realmilk.com/foodborne.html for a table which was drawn up for a Los Angeles County Board of Supervisors vote on permitting raw milk in the County. It can be clearly observed that properly produced certified raw milk (with a health warning label) was not associated with even one outbreak of food-borne disease between 1982 and 1997. In the same period of

time, many outbreaks involving many people occurred with pasteurized milk and with other foods. It is strange that the certified raw milk required a warning label, but the pasteurised milk and the other foods did not! This demonstrates clearly two things:
(i) the overall outbreaks of food-borne disease are actually very high in foods other than raw milk, including pasteurised milk
(ii) properly produced certified raw milk produced in California has a spotless record and has not caused any food-borne illnesses on record, and therefore the codes of practice, HACCP protocols, etc. that have been adopted in California we would do well to adopt here.

- Interestingly enough, the adjacent article to the one cited in the RISK from the MJA, "Foodborne disease: how to respond?" in MJA, Vol 16, 2/16 Dec, 1996, pp 667-671, states: "although the aged, ill and infirm have always been at risk, they now live longer and there are also many more immunosuppressed people in the community than in the past...The healthy may also be transiently at high risk of food-borne illness because of physiological changes (e.g., pregnancy) or increased exposure (e.g., young children in childcare centres and group settings)...As infectious doses may be lower for those at risk than for the general community, ensuring food safety for high-risk groups is very difficult if the community as a whole is to be allowed a free choice of foods. To complement action at the food supply level, consumer education programs are essential to make high-risk groups and their caregivers aware of the hazards..." As it is entirely possible to produce clean raw (unpasteurised) milk, which is by far cleaner than pasteurised milk (in terms of microbe counts), a certified standard for raw milk can exist for the immuno-compromised. Freedom of choice to the whole community does not have to be restricted unfairly. Caregivers and high-risk groups should be educated carefully and properly, while the long-term health of the overall population is considered.

- The same article goes on to state "Today's methods of animal husbandry (intensive methods, conditions of mass production) contribute to the maintenance of these infection reservoirs...and transmission is increased by overcrowding of animals...carriage rate and shedding of salmonella is further increased by the conditions and stress of transportation from farm to abattoir and dietary changes before slaughter." (brackets mine) This definitely indicates the importance of supporting small farmers who are not giving into greedy monetary motivations by such harmful practices as increasing stocking rates excessively, growth hormone promotants, chemicals which stimulate milk production excessively, forced-fattening feeding etc.
SUPPORT SMALL FARMERS WITH SMALL HERDS AND LOCAL PROCESSING TO ENSURE A SAFE FOOD SUPPLY. With milk being supplied by small farmers with small herds, milk distribution is necessarily limited, and any potential outbreak (which can't occur anyway if proper standards are maintained) would necessarily be very limited in number, and easily traceable.

- As stated in above article, Campylobacter and Salmonella are mainly caused by today's overly intensive food production system. Using this as a reference in a document relevant to the dairy industry is quite deceptive in part, when almost all cases I've mentioned on record appear to have come from other products, NOT FROM MILK OR MILK PRODUCTS. If you want to decrease Campylobacter and Salmonella in the food supply:
(i) concentrate on relevant foods and relevant issues, rather than misassigning false concepts by adjacent inclusion in documents on irrelevant food areas
(ii) stop or limit force feeding, overproduction, too high stocking rates, inappropriate animal feed and feed-fertilisation, large-scale processing, and overcrowding of animals,
(iii) reference your work properly and substantiate your arguments
- As previously mentioned, documentation in support of risk in raw dairy from campylobacter and salmonella are sometimes flawed or narrow in their consideration. Many of them, if not all, seem to show nothing more than unhealthy milk full of pus from unhealthy cows, can make people sick. This is not a debatable point - we need healthy milk. Some factors they almost consistently fail to address are:
(i) ingestion of feed-antibiotics by cows, and their effect on final milk quality, cow's immune system, and cow intestinal flora;
(ii) difference between free-ranging non-ammoniacal pasture-fed cows and grain-fed cows with acidosis and intestinal microbiological imbalance;
(iii) effects of ingestion of insecticide-treated grain (for weevil-killing) on intestinal microbiology of cow and final milk produced;
(iv) content in the milk of urea, and other nitrogen compounds and its relationship to cow feeding, soil fertilisation, and final microbial tendencies of the milk;
(v) the effect that cow feeding of ammoniacal feed has on final milk produced;
(vi) the effects grain-feeding-induced-acidosis has on bacterial balance of cows intestines and on final milk produced;
(vii) the long-term effects on the immune system of the cow from daily antibiotic ingestion in its feed, and the increase in risk associated with the final milk produced as a result of this;
(viii) the effects of excess stocking rate, crowding on animal health.

- In Wisconsin, US, a Campylobacter outbreak was falsely blamed on raw milk. The basic summary of this event is available on hlink:
http://realmilk.com/pr_071402.html. The people producing the milk had their milk tested regularly for campylocater and there was never a trace of it.
When the outbreak occurred, they received calls from many nurses at hospitals reporting on the large numbers infected - when it was determined that these people had not drunk raw milk, they were sent home without blood tests. The test on the raw milk done by the state came back too quickly to have been a true test for camplybacter. Only 23 of about 800 people with camplybacter had drunk raw milk and all of them had also eaten underdone ground beef at a local restaurant. It appears that some health departments in the world need serious policing to ensure that their investigations are accurate. Perhaps this should be considered

in Australia, so no such perversions of the truth can occur here, and we have accurate health data to base our decisions on.

"Changes in food processing, distribution and sale - more extensive food distribution from large centralised processors can increase the risk of contamination"
- all the more reason to SUPPORT SMALL FARMERS AND LOCALISED PROCESSING AND DISTRIBUTION ("An Agroecosystem Perspective on Foodborne Illnesses" David Waltner-Toews, DVM, PhD, Department of Population Medicine, Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada N1G 2W1 - Ecosystem Health 1996; 2: 177-185)

"New and emerging pathogens...Strains of EHEC caused serious outbreaks of illness in South Australia in 1995"
- Does this statement have any real relevance to milk production? As far as I can determine this outbreak was from a fermented meat product. It has little or no relevance to milk. Once again, misassigning false concepts by adjacent inclusion in documents on irrelevant food areas. Reference your work properly to give consumers a fair chance of critiquing your work.

"Improved methods of detection - scientific advances have vastly improved the ability to detect and characterise pathogens"
- This is exactly why it is now so easy to ensure a safe milk supply stage by stage with proper testing of the soil, the feed, the cows and the milk at each stage according to HACCP protocols.

"It is to be expected that these factors would also influence the public health risk of milk and dairy products"
- this is true only of the ones it is true of, not of some of the irrelevant ones here listed "Under the proposed regulation, existing operators will continue to have flexibility to tailor a response consistent with their operations and there will be no additional impact or effect on them from the regulation"
- This statement is untrue, and fails, as I've mentioned before, to address the needs and concerns of niche-consumer groups, and small independent farmers. They would be affected, and some may be unfairly forced to cease trading.

"Consumers are the major beneficiaries of the proposed regulation, as they will continue to benefit from programs, which produce dairy products that are wholesome and safe to eat"
- How is it beneficial to be forced to consume a product that is microbially and nutritionally inferior, that has been shown to have degenerative long-term health effects on every species which has been investigated (to my knowledge)? This represents a great long-term loss to the health of the population. Consider again:
- "Long-term and early-life exposure to stables and farm milk (boldface mine

- "farm" means raw, unpasteurised) induces a strong protective effect against development of asthma, hay fever, and atopic sensitisation"..."Farm milk, which is usually raw...(Lancet 2001; 358; 1129-33)

- (Frequency of asthma was reduced from 11 percent found in the control group to 1 percent among the farming-exposed children. Similarly, hay fever occurred in only 3 percent of the farming-exposed children, compared with 13 percent of the controls, and atopic sensitization occurred in 12 percent of the farming group and in 29 percent of the controls. The researchers found that the timing of exposure to the farm environment and raw milk was critical. Those children exposed during the first year of life showed the greatest protective effect. Continual long-term "exposure to stables" until age five years was associated with the lowest frequencies of asthma, hay fever and atopic sensitization. Subsequent comments on this article (Lancet 2002 Feb 16;359(9306):623-4) stress "exposure to stables" as the determining factor but we wonder whether this is any different than exposure to pets in the typical urban home.
It is much more likely that consumption of raw milk is the determining factor because this variable can be uniquely determined. - www.realmilk.com)

- children fed raw milk have more resistance to tuberculosis and other infections and less tendency to chilblains and tooth decay, than children fed pasteurized milk (Lancet, p 1142, 5/8/37)
- that raw milk is very effective in preventing scurvy and protecting against flu, diphtheria and pneumonia (Am J Dis Child, Nov 1917)
- Now consider, we as a nation have a very high incidence of asthma (actually we're virtually the asthma capital of the world!), and quite high incidences of allergic rhinoconjunctivitis, and, atopic eczema (Lancet 1998;
351; 1225-1232) (brackets mine).

WHAT DO YOU THINK THE NET COST TO LONG-TERM PUBLIC HEALTH WILL BE FROM NOT PROVIDING MICROBIALLY SAFE, RAW (UNPASTEURISED) MILK FOR YOUNG CHILDREN'S GROWING BODIES?

- add to this the consideration of all the anecdotal case histories from parents and friends, indicating the allergies and health problems associated with pasteurised homogenised milk. Many of the same people unable to use this standard commercial milk prosper with no problems on RAW (unpasteurised, unhomogenised) milk. In case you've never met one, the adverse reactions include nause, vomiting, sinusitis, diarrhoea, and respiratory problems. These same people have no problems with raw (unpasteurised) milk, especially after souring it, which they cannot do with pasteurised milk, because it rots instead of souring.
- Add to this again, the soaring infertility rates that have been reported in the popular press. Every animal species studied that I personally know of has reached a point where they degenerate and fail to reproduce when fed enough pasteurised milk (rats, bovine calves, pups, kittens).

WHAT DO YOU THINK THE NET COST TO LONG-TERM PUBLIC HEALTH WLL BE FROM NOT PROVIDING MICROBIALLY SAFE, RAW (UNPASTEURISED) MILK TO THE PEOPLE OF THIS COUNTRY WHO PLAN ON HAVING CHILDREN?

- Also consider, that pasteurisation produces changes in the proteins and fats in the milk. Studies have implicated heated milk protein with the causation of atherosclerosis (Annand JC (1971) "The case against milk protein." Atherosclerosis, vol.13, p.137, Annand JC (1972) "Further evidence in the case against heated milk protein." Atherosclerosis, vol.15, no.1 (Jan.), pp. 129-133, Annand JC (1986) "Denatured bovine immunoglobulin pathogenic in atherosclerosis." Atherosclerosis, vol. 59, no. 3 (Mar.), pp. 347-351)).
Other authors have pointed out that the heated-milk lipids (fats) undergo oxidation, and that oxidized lipids have been implicated, also, with the development of atherosclerosis. With this in mind, pasteurised milk appears more and more to be a significant long-term "food-safety risk".

WHAT DO YOU THINK THE NET COST TO LONG-TERM PUBLIC HEALTH WLL BE FROM NOT PROVIDING MICROBIALLY SAFE, RAW (UNPASTEURISED) MILK TO THE PEOPLE OF THIS COUNTRY WHO MAY DEVELOP CONSIDERABLE ATHEROSCLEROSIS FROM BEING FORCED TO CONSUME ONLY PASTEURISED MILK PRODUCTS?

- Consider future legal actions and class suits against those involved in failing to acknowledge and accomodate this desire and need of some consumers for their long-term health.

- Galen, Hippocrates, Pliny, Varro, Marcellus Empiricus, Bacchis and Anthimus, leading physicians of their day, all used raw milk in the treatment of disease. During the 1920s, Dr. J.E. Crewe of the Mayo Foundation used a diet of raw milk to cure Tuberculosis, edema, heart failure, high blood pressure, prostate disease, urinary tract infections, diabetes, kidney disease, chronic fatigue and obesity. Today, in Germany, successful raw milk therapy is provided in many hospitals. Raw milk is used, because pasteurised milk won't work!

- With this in mind, I fail to see what is meant in the RIS by the word "wholesome".

"The industry will continue to derive benefits, because they will be protected from adverse cuts in sales, which an outbreak of food-borne illness would create."
- the industry will derive benefits from having products which are safe, and health-enhancing, with all nutrient factors in place, and which are produced according to standards and procedures that guarantee them to be within acceptable microbial limits. No outbreak of disease then needs to occur.

Pasteurisation is NOT necessary throughout the entire milk supply to guarantee no outbreaks will occur.

"Furthermore, market brand recognition on food safety grounds will build consumer loyalty and result in enhanced competitive outcomes."
- Consumer loyalty can be built by personal relationships with the small independant farmers, their farms, and their animals. Consumer confidence can be boosted by knowledge of the issues and the standards and procedures involved in producing safe, clean raw (unpasteurised) milk. This will expand the milk market, and create jobs, while quite likely boosting long-term population health, and saving money on health care.

"FSAC makes recommendations on food safety matters to the Minister for Primary Industries via the CEO of SFPQ"
- well I certainly hope he or she is an open-minded person who researches widely and responsibly and doesn't hold rigid positions unnecessarily. It would be shameful if such a person allowed their own economic interests, emotional bias, or ignorance to colour their recommendations wouldn't it?!
Very specifically, consider who polices these decision-making individuals.
Do we need a watchdog group to ensure that these people are making decsions in everyone's interests?

"The Food Safety Advisory Committee (FSAC) consists of the following members:
a) CEO of SFPQ
b) CEO of Department Primary Industries (DPI)
c) CEO of Department of Health
d) a number of industry representatives
e) a consumer representative"

- the basic glaring omission here is the fact that only one consumer is on this committee. It seems only fair that it should be composed one third of government representatives, one third of industry representatives, and one third of community representatives. The more consumers, and the more diverse their tastes, the better. An alternative scheme is to have a much more extensive community consultation process. This RIS requires time, effort, awareness, literacy, and luck or specific knowledge to find it, in order to be
an effective tool for consumer feedback. Public announcements, advertised on radio, television, and newspapers, and several public meetings at different times that are deliberately intentioned with gaining verbal and written feedback from all sectors of the community would appear as a more sincere attempt at eliciting information from consumers. Even all this may fail to adequately gain feedback from certain niche-consumer groups unless they are specifically targeted. Only having one consumer representative in this whole process is completely unacceptable, and may allow vested interests to dominate the decision-making process.

"The FSAC has established a Dairy Food Safety Sub-Committee to assist with the development of the Food Safety Scheme for Dairy Produce.

Representatives of the following organisations make up the composition of the Sub-Committee:

a) Australian Quarantine and Inspection Service
b) Dairy Farmers Group
c) DPI
d) Food Industries Association of Queensland
e) Fresco Cheese Pty Ltd
f) Local Government Association of Queensland
g) Pauls Limited
h) Pixie Ice Cream
i) Queesland Diary Authority
j) Queensland Dairy Farmers' Organisation
k) Queensland Health
l) Queensland Raw Goat Milk Producers' Association
m) Queensland Retail Traders and Shopkeepers Association
n) Refrigerated Warehouse and Transport Association
o) Retailers Association of Queensland
p) SFPQ; and
q) Stockfeed Manufacturers Association.

It is up to FSAC, acting on advice from the Sub-Committee to determine if a Food Safety Scheme is required for a particular sector."

- I see big industry and government represented here, but not consumers. Only one consumer involved in the whole process - pathetic, to put it bluntly.
- While some of the above organisations may purport to represent dairy farmers, they can only, at best, represent their members. A meeting was held with regard to these regulations and some farmers did not even know that it was happening. I question how many of the members of these organizations (the dairy farmers themselves) have been consulted. I also question what effort has been made to consult with small independant dairy farmers, particularly those following sustainable organic principles. I suspect that no effort has been made at all. I certainly see no evidence for it here in this RIS.
- It is good to see the Queensland Raw Goat Milk Producers' Association have been included. I'm sure there will be no objection to the inclusion of both a Queensland Raw Cow Milk Producers' Association AND a Queensland Raw Cow Milk Consumers' Association. As pointed out previously, a similar food safety scheme as is applied to raw goats milk can be applied to raw cows milk. The difficulties here are lack of funding and time from the parties involved. Because you have made so little effort to contact consumers and small independant dairy

farmers (apparently) to obtain their views and represent their interests, they may have to themselves, thus making life even more difficult for them.

"after it has completed a thorough review of the current status of food safety standards and risk analysis on that sector"
- And where exactly is this "risk analysis"? As a consumer I would like to read it. Please mail me a copy in reply.

"These requirements will seek to ensure that food safety schemes are soundly based, effectively targeted and do not impose unnecessary costs on business."
- I personally will hold you to that promise, especially in the area of small independant farmers
"They guarantee transparency and will maximise the opportunity to develop a partnership between SFPQ, food industries and consumers in the development of food safety schemes."
- I'm all for "partnership", as long as it is friendly and supportive. I do not see from all you've written how "consumers" are included in this partnership. I see one consumer involved in the whole process. Is there something you don't want the consumers of Queensland to know?

"Audit frequency will relate to risk and performance of the food safety program"
- in other countries raw milk producers have been indirectly unfairly pressured out of business by the imposition of costly testing with unnecessary frequency. This must not happen in Qld, Australia. Testing should be with necessary frequency and governments should subsidise and support small farmers testing costs to help save family farms.

"The principal benefits of the proposed Regulaion are:

1. Prevention of sickness in humans from contaminated and unwholesome milk and dairy products.
2. Prevention of economic loss from wasted milk and dairy products due to contamination.
3. Prevention of economic loss by maintenance of public perception of the safety of milk and dairy products.

Food safety is a public health issue. As with other aspects of public health it can never be principally considered on economic grounds. Often what appears to be the most economically efficient option will not adequately protect public health."
- All 3 benefits can come from the Regulation also including raw (unpasteurised) milk which meets reasonable HACCP production standards.
- Public health, long-term, will very likely depend upon the availability of raw (unpasteurised) milk products, even though there provision may not be "the most economically efficient option".

"providing the necessary information to allow consumer choice"

- I haven't seen much information provided to (or from) consumers at all in this matter

"consumers need to be assured that the regulatory authorities have the necessary capacity, flexibility and freedom to effectively deal with risks, threats and hazards, and are supported with the necessary scientific expertise to seek to ensure credibility."

- fair enough, make good standards for raw milk production, and supply the expertise and others to ensure they are met appropriately a number of options are possible that are not mentioned in these pages. If a highly informed member of the public chooses to enlist the services of a local farmer for their food supply, why should anybody interfere? The large majority of public can still access what is considered the "safe" pasteurized milk from the shelves of the supermarkets. Overall risk to overall consumers in this scenario is still very low, and consumer choice is honoured. If it be argued and won that that is unacceptable, and that all should be regulated, then a standard should be included in the regulations for raw bovine and caprine milk, at the very least, to honour the consumer demand that is there for these food items. (FAILURE TO DO THIS WILL FORCE THE CONSUMERS AND PRODUCERS INTO AN UNDERGROUND ILLEGAL MOVEMENT, WHICH WILL POTENTIALLY ENDANGER THE PUBLIC'S HEALTH, THROUGH LACK OF STANDARDS IN PRODUCTION. NO CONSCIENTIOUS INFORMED PARENT WILL ALLOW THEIR CHILD TO HAVE PASTEURISED MILK IF THEY BELIEVE IT IS POTENTIALLY HARMFUL. THE GOVERNMENT IS OBLIGATED TO MEET THIS CONSUMER DEMAND ACCORDING TO REASONABLE PRODUCTION STANDARDS.) A degree of self-regulation can be combined with this, where producers can carry out their own testing procedures within certain parameters.

- the public can have the choice of milk produced according to endorsed regulations, and that which is not. Proper, clear, honest labelling will allow consumers to make their own choices. Regulated and unregulated products can both co-exist in the marketplace. If necessary, a consumer education campaign can be initiated, to educate the public about the relative standards of different milk items and regulatory requirements, etc. This does not have to be an all-in or all-out, black and white situation.

- Hence I propose another possible option, Option 4.

Option 4 - Amalgamate the current licence conditions and regulation (under the Dairy Industry Act 1993) to a food safety scheme (as Option 2) including certain refinements, improvements, and acknowledgements of consumer demand (especially for unpasteurised milk and milk products for human and animal consumption), and including the formation of a funding and educational body that supports small independent dairy farmers in supplying unpasteurised milk ((especially that produced according to organic principals) that meets certain regulated standards) directly, and through retail, to the public.

Some cost benefits differences of this option as compared to Option 2 are:

Costs Government:
Cost of drafting additional regulation, cost of establishing funding body, cost of providing funding and education to farmers.

Benefits Government:
- lower health care expenses long term Consumer/Community
- availability of higher quality, raw milk products to consumers who demand it
- lower health care expenses long term Producers
- small independent dairy farmers are funded and educated to produce high quality raw milk that meets regulated standards.

Re: "Summary" bullet points.

- These do not contain any consideration of long-term effects on population health or the costs to all concerned parties of these.
- Consider again, infertility, atherosclerosis, asthma, eczema, atopic disease etc.
- These all represent significant long-term costs to Australia as a nation, and to individuals and families of those afflicted.
- Failure to allow the discerning public the right to choose raw milk and dairy products could result long-term in the significant loss of human life and health.
- In this sense, pasteurised milk and milk products may represent a serious liability to public health long-term, just as contaminated raw milk does short-term.
- Compelling the discerning public to buy only pasteurised dairy products represents a serious future risk to government finances, as they may be held responsible for deliberately enforcing measures which endanger the public health long-term, and not providing other options.
- Law suits and class actions are very plausible with these considerations in mind.

CAN THE GOVERNMENT AFFORD NOT TO MAKE RAW MILK AND RAW MILK PRODUCTS AVAILABLE TO THE DISCERNING PUBLIC WHO DESIRE IT?

Draft Document2 - modified after most recent RMA meeting held 21st June 2003 - Northey St City Farm
To the Hon Henry Palasczuk, Minister for Primary Industries
For concurrent viewing by SAFE Food Qld
Written by Kyle Grimshaw-Jones (B.App.Sc.(TCM), Dip.App.Sc.(Nat),R.T., N.D.)
on behalf of The Real Milk Alliance.

The Real Milk Alliance is an unincorporated association? whose membership consists of producers, processors, and consumers of raw bovine milk and raw bovine milk products. The Alliance's intent is to facilitate the safe availability of raw bovine milk and its products to the public, in acknowledgement and support of the growing consumer demand and growing awareness of its health benefits. We hope this will be achieved by demonstrating that raw bovine milk and its products can be produced according to a code of practice, resulting in an end product that is microbially safe, and that meets the national standards as set out by Food Standards Australia New Zealand, in all respects other than its being unpasteurised. These standards can be viewed on the web site http:www.foodstandards.gov.au/foodstandardscode/
Basically, if the raw product can consistently be made to meet these standards of safety, we believe there is no need to pasteurise it.
There is much background information on raw bovine milk and its products that should be understood by producers, processors, consumers, and the regulatory governmental bodies concerned. Some of this, for your convenience, is attached in an addendum to this submission, including my previously submitted response to the Regulatory Impact Statement (Aug 2002) for the new Dairy Regulations. Much of this information has already been forwarded to SAFE food Qld and to the minister and his advisers, and was mutually acknowledged at a meeting at SAFE food Qld in McLaughlin St, Fortitude Valley, Brisbane held on /4/03??. Present at this meeting were, among others, David Morley, Barbara Wilson, Bob Thompson, Don Macfarlane, myself, Julie Phillips... Please also find attached an audio tape interview from the US with very important information concerning the ability of raw organically produced bovine milk from healthy cows to destroy pathogenic bacteria such as salmonella and E.Coli157. The particulars of this study are being retrieved currently and hopefully will be forwarded to the ministers' office and Safe food Qld soon.
We are sure the minister is aware that there is currently no regulatory standard in Qld for the production and provision of raw bovine milk to consumers. Also contained in the addendum is a copy of a petition of 1000?? signatures indicating the desire of the consuming public for a raw bovine milk regulatory standard. This is our desire also.
We hope to demonstrate the safety of raw bovine milk that is properly produced.
Our current intent is to:
i) select a model farm/farmer/facilities,
ii) select a NATA (National Australian Testing Authority) accredited laboratory
iii) liase with government and other bodies (particularly DPI, SAFE food and other raw cow milk producers with successful models of production and codes of practice) to formulate a suggested code of practice for the safe production of raw bovine milk,
iv) witness the production of said milk according to said code
v) witness the testing of said milk by said NATA accredited lab
vi) Collate the resulting data and present it in our next submission to the minister and SAFE food.
vii) If the final product of this course of action successfully demonstrates that raw bovine milk can be produced safely consistently, when this code of practice is followed, we will then request that this be acted upon and that this new code of practice be made into a new sub-regulation incorporated within the current Dairy regulations for Qld, and with

the approval and support of the minister and SAFE food, our submission can then be forwarded to FSANZ and result in an addition to the current national standards.
We currently believe that the best models to base this code of practice and testing on are:
i) the Code of Practice for the production of Raw Goats milk, as formulated by SAFE food;
ii) the prior South Australian regulations for the production of Raw Cows Milk; and
iii) the Californian standards for the production of raw cows milk.
Rosie Winters of SAFE Food has kindly provided a copy of the current (as of our phone conversation held in Mar 2003??) code of practice for the production of Raw Goats milk. She has also agreed, during our phone conversation, to indicate (e.g. via margin notes):
i) areas that have been suggested as needing more strict upgrading in the microbial testing element of the standards for the goats milk code, that may be subject to revision; and
ii) areas that are currently understood as being more specifically important for the microbial safety of cows milk as compared to goats milk (e.g. particular pathogens that may be more common in cows milk than in goats milk) that are not included in the code of practice for goats milk.
We note that these two specific items of information have not been received despite several phone call and email communications.
We believe that there are several factors that are not commonly acknowledged or understood that affect the end quality of a cow or herd's milk, including its bacteriostatic/bactericidal qualities. Several of these are in my original submission to SAFE food in response to the RIS for Dairy Regulations, on page 19, included in attached addendum and quoted below:
"If you raise truly healthy cows, and if you test the cow's blood and body tissues at regular intervals, and find that it is free of a pathogenic bacterial infection, and you test its milk at regular intervals, just to be safe (and for post-secretive bacterial contamination), then the "excretion of the organism from the udders of apparently healthy cows", is not going to be a problem or compromise the food supply. Additionally, the factors mentioned above and below should be considered with regard to the health of cows and their milk:
(i) ingestion of feed-antibiotics by cows, and their effect on final milk quality, cow's immune system, and cow intestinal flora;
(ii) difference between free-ranging non-ammoniacal-pasture-fed cows and grain-fed cows with acidosis and intestinal microbiological imbalance;
(iii) effects of ingestion of insecticide-treated grain (for weevil-killing) on intestinal microbiology of cow and final milk produced;
(iv) content in the milk of urea, and other nitrogen compounds and its relationship to cow feeding, soil fertilisation, and final microbial tendencies of the milk;
(v) the effect that cow feeding of ammoniacal feed has on final milk produced;
(vi) the effects grain-feeding-induced-acidosis has on bacterial balance of cows intestines and on final milk produced;
(vii) the long-term effects on the immune system of the cow from daily antibiotic ingestion in its feed, and the increase in risk associated with the final milk produced as a result of this;
(viii) the effects of excess stocking rate, crowding on animal health."
Also add to this the effect of direct feeding of urea to cows.
We believe that the overall health of the cows in the herd determines the quality of the final milk produced. Many problems of today's commercially available cows milk, and the herds that produce it, are caused by the interference in the natural order of things by trying to force overintensive production out of the cows concerned. We believe that this

overintensive forced level of production harms the health of the cows in the herd, and produces an inferior and less healthful milk.

Basically, milk is made from the blood of the cows in the herd. The blood of the cows in the herd is made from the cows' feed, water, air, and habitat/environment. The cows' feed is made from the soil the herd grazes on top of, and the soil the cows' feed is grown on.

We believe that the current regulations and mindset needs changing to acknowledge a broader set of relevant factors that affect the final product - milk, and its derivatives (e.g. cream and butter). Overintensive production, the administration of non-food substances to cows (drugs), unnatural feed (e.g. urea, excess grain), overintensive stocking rates, mismanagement of the soil, and several other factors that are common practise by today's milk producers are, in our opinion, health destroying influences for the soil, the environment, the cows, and the people that finally ingest the milk. We request a new standard that acknowledges these factors as important, and acknowledges the desire of a niche market within the public for raw whole organically-produced bovine milk and milk products.

Bearing the above in mind, we request an ongoing process of consultation and overseership with SAFE foods and the minister to co-operatively produce a study on raw cows milk that will be considered scientifically valid, and that will address the specific concerns and objections that SAFE food and the minister and his advisors have to the safety of raw cows milk. It is very important that this study be constructed according to these concerns correctly at the outset, as any such study will be costly, and will require considerable financial backing. Perhaps half of the funding for this project could be supplied by the State Government, or Qld health, to help lighten the burden on the industry in meeting their standards!

We note that the consumer demand in the western world for raw dairy products is increasing. It is now available in several western countries by various means, and is supported by legislation in the US. We foresee that a safe regulatory standard in Qld for raw bovine milk will expand the current market for Dairy in Qld, boosting local trade, and benefiting small producers in the industry, while bringing us up-to-date with the rest of the western world. We also foresee that the long-term health (please see my attached submission for the RIS for more information with regard to long-term health considerations) of the people of Qld, which we consider to be determined in large part by the availability of natural, nutrient-dense foods, will be benefitted by such a standard, resulting in a happier, healthier society.

Respectfully submitted on 21st July 2003,
Kyle Grimshaw-Jones, on behalf of the Raw Milk Alliance
(B.App.Sc.(TCM), Dip.App.Sc.(Nat), R.T., N.D.)
5th July, 2003 - next RMA meeting at Northey St City Farm after the markets to view penultimate version of submission
9th July, 2003 - draft informally perused by CEO Safe Food Barbara Wilson
21st July, 2003 - final draft formally submitted to Safe Food
Please forward all feedback/suggested modifications/paragraphs for inclusion in document/etc. ASAP.
Please find my original RIS submission attached - Kyle