

1 **Submission to;**
2

3 **Proposals for continuing to legally provide** 4 **for farm gate sales of raw drinking milk**

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9

10 **Submission from;** 5th December 2011 by email. MAFfoodpolicy@maf.govt.nz

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15 I have been involved as a producer of the land all my life in dairy, dry-stock and
16 horticulture. This has involved me in agri-politics, having held national office in
17 Federated Farmers. I have been involved in education and advisory roles in agriculture
18 for more than 25 years covering all aspects of primary production and marketing.
19 Currently I operate a range of Biological and Organic farm extension services and
20 support activities.
21

22 **I submit that option 2(with modification) should be the preferred option.**

23 Option 3 as preferred by MAF is based on a time when the average herd size was much
24 smaller and the local factory much closer. While accepting that option 3 will suit some
25 operators, it does not appear to protect the industry (dairy) as a whole or provide for dairy
26 farms wishing to provide a quality product to a serious and growing market.

27 Given that MAF identify (and I concur) that raw milk is a potentially hazardous product I find
28 it unacceptable for MAF to then prefer a framework that relies on; (page 16, last para. 6.2)

29 *Farmers' compliance with any new requirements such as the proposed animal health and*
30 *hygiene requirements will not be subject to routine external verification. Enforcement would*
31 *instead focus on intermittent surveys and spot checks, and responding to complaints received.*
32 *MAF would be obliged to investigate if there was a complaint or foodborne illness outbreak.*

33 Historically there was no limit on the number of '5 litres' that could be sold in a given day from
34 the farm gate and as pointed out on page 5 it was on a 'buyer beware' basis.

35 **I contend that we are no longer in the past and it is time to revamp raw milk marketing**
36 **regulation to meet the current on farm technology and expertise and the growing market**
37 **demand while at the same time providing a developed nations consumer protection**
38 **expectation through regulation.**
39

40 I will also include 'desired outcomes' at the end of this document.
41
42

1 I will now work through the discussion document to respond to various aspects.

2

3 **1.2 SCOPE OF PROPOSALS**

4 Page 1, 1.2, 3rd para. ; *Issues around allowing or providing for the commercial scale sale of raw*
5 *drinking milk are associated with a much greater level of risk and are more complex than farm*
6 *gate sales. Providing for the sale of raw milk for drinking on a more commercial scale is not*
7 *considered appropriate at this time.*

8 While accepting that the document is limited to the discussion of ‘farm gate sales of raw milk’
9 and not the full commercialisation through retail (third party) outlets, I do believe we need to
10 address the use of the term ‘*more commercial scale*’; given that the MAF preferred option could
11 see a producer marketing some 43,800 litres of raw milk p.a. (with no regular audit) at a current
12 value of around \$3 (aware of current price \$1 to \$4 GST incl.) per litre, it is somewhat hard to
13 conceive this (some \$131,400) as not commercial. As such I believe it is appropriate to address
14 the commerce aspect of this with some realism.

15 Here I believe the intent needs to be ‘**sale of raw milk direct from farmer to consumer**’.

16 It needs to be fully recognised that currently there are businesses operating from 1 cow to very
17 much more than the 6 cows MAF are proposing. Limiting the total (120Lt) from any given farm
18 (regardless of the risk management regime) while removing practise validation from all is surely
19 a high risk programme.

20

21 **3.2 FOOD SAFETY RISKS ASSOCIATED WITH RAW DRINKING MILK**

22 While fully accepting the reality that raw milk is ‘potentially’ hazardous, it must also be accepted
23 that all food is ‘potentially’ hazardous. This is evidenced by the recall of food processed under the
24 relevant RMP or other regulation, with monotonous regularity, for pathogenic, foreign object, or any
25 number of other reasons.

26 Even something as simple as applying the ‘use by date’ concept seems too much for some; I have
27 purchased flavoured milk from a supermarket, and the first mouthful created an involuntary
28 reaction resulting in the product exiting my mouth at great speed. Upon inspection, I found it was a
29 week out of date. When I informed the retail outlet they removed some 20 further non-complaint
30 containers.

31 The regulation does not remove the risk, it helps provide the information for the consumer to access
32 the risk---I now know to ALWAYS look at the use by date—but not on flavoured milk, which is no
33 longer an option in my choice range.

34

35 The information MAF has provided in this document in support of the risk proposition of
36 raw milk is, I believe, suggestive to a poorly informed audience. While not wishing to
37 diminish the ‘potential’ risk, the evidence referred to puts the one cited example in 2009
38 into perspective.

39 Firstly; much of the international reference used to support the view of high risk, has little
40 application as it comes from farming systems not based on grass based systems, but on systems
41 where cows spend considerable time housed. This information will carry more weight as we see
42 more NZ production based on imported concentrates and housing/confinement of the herd.

1 The several (3.2 para.4 line 2) cases credited to NZ do carry weight. A closer look at the information
2 at the link;

3 http://www.surv.esr.cri.nz/PDF_surveillance/NZPHSR/2010/NZPHSR2010March.pdf (reference 2 page 4)
4 is impressive, until a closer look is taken, this is not to say that the issue was any less real and
5 concerning for the families affected.

6 From the report;

7 **ENTERIC INFECTIONS**

8 **Campylobacteriosis**

9 · Notifications: 2,491 notifications in the quarter (2008, 2,349); 7,178
10 notifications over the last 12 months (2008, 6,694) giving a rate of 166.3
11 cases per 100,000 population (2008, 156.8); a statistically significant
12 increase

13 · Comments: there has been a statistically significant quarterly increase
14 from the previous quarter (1,549 cases)

15 There are a lot of cases reported here, so how many were attributed to the 'potential' cause of raw
16 milk; from further in report;

17 A total of 64 students aged between five and seven years plus 25 parents
18 and three teachers visited the dairy farm. Fifteen people subsequently
19 developed a gastrointestinal illness with vomiting, diarrhoea and abdominal
20 pain with a median incubation period of four days.

21 All the students had touched calves but washed their hands with hand
22 sanitiser gel before eating their own individually prepared lunches at the
23 dairy farm. It was found that all the cases had also sipped small amounts of
24 raw milk from the processing outlet before it entered the milk vat. The attack
25 rate for drinking raw milk was 56%, while the attack rate for those who did
26 not drink raw milk was 1.6% ($\chi^2=34.23$, $P \leq 0.001$).

27

28 Maybe I have misread the information provided?

29 But from the 7,178 reported cases (Campylobacteriosis) in the previous 12 months a total of 15
30 individuals are attributed to a strong link to raw milk, I am not a statistician, so am happy to stand
31 corrected, but this would be 0.21% of the annual case load.

32 Is this statistically significant?

33 And furthermore what regulatory changes are intended to deal with the attributed causes of the
34 other 7,163 cases?

35

36 The last line of 3.2 para.4 applies to all cases of reportable illness not just raw milk.

37 I have also attached (appendix 1) work from Dr Nick Waipara, AgResearch, while not dealing with
38 milk, it is dealing with 'potentially pathogenic organisms'. The tests on vegetable matter show one
39 sample type to have higher micro-fungi presence; it is however the other sample type that had a
40 higher present of food spoilage and toxin producing micro-fungi.

41 While we have much to learn about the interrelationship of micro-organism communities, this sort
42 of example does point to a range of question re isolation and culturing micro-organisms.

43

44 **3.3 ORIGIN AND INTENT OF LAW ABOUT FARM GATE SALES**

45 With regard to the proposition laid out in 3.3 (page 5) I have not seen wide use of the practise to
46 boil raw milk, and the many farmers I am and have been involved with, I am not aware of any
47 that boil the raw milk prior to use. Prior to the fridge the milk was indeed kept in a 'culvert' in
48 the ground on the south side of the house, the jug was filled and kept in a well-ventilated 'safe'.

1 The document also refers constantly to 'raw drinking milk', it should be noted that cold
2 puddings, butter and other products were also made from the raw milk, thus it is better to
3 discuss **consumption**(as is stated in section 11a of the Food Act 1981.) rather than just drinking.

4
5 **Again here with the common place of fridges and freezers today a considerable amount of the**
6 **risk has been managed / mitigated.**

8 **3.4 CURRENT LEGAL REQUIREMENTS IN NEW ZEALAND**

9 While noting that it is a current requirement for a RMP to be in place under the Animal Products
10 Act, and that this applies to even the products of a single animal, the suggestion is that the RMP
11 requirement would remove risk.

12
13 The discussion document includes the line (para. 3, line 5);

14 *RMPs describe strategies for **mitigating** food safety risks associated with harvesting, storing and*
15 *supplying milk to dairy processors.*

16 And it is this that needs to be audited; the RMP does not remove all elements of risk---as is
17 clearly evidenced by the food recalls of product produced subject to a RMP or other regulation.
18 For milk 'fit for intended purpose' --in this case household consumption---it would be reasonable
19 to have a commercial (one that is involved in trade) operation audited to ensure the operation
20 has acted in accordance with a set of rules/regulations available to the end user/consumer. In
21 this case not for general retail trade but producer to consumer trade---creating the personal
22 relationship and the natural responsibilities that this generates.

23 Given the vast improvements since the 5 litre rule came in some 60 years ago, the requirements
24 of the standard supply farm to a commercial processor far exceed the standards of the 1950's,
25 thus mitigating much of the risk today.

26 Just as examples of risk areas removed; walk through cow sheds(very few operating), open air
27 cooling, brass fixtures, coarse filtration, metal to metal taps, animal (bird, dog,) access to milk
28 post-harvest pre vat, the animal health national herd improvements in TB, Brucellosis,
29 Leptospirosis, etc. .

30 It does come down to what the consumer believes they are in fact purchasing, and to this end I
31 put that they believe they are receiving milk to the 'current industry standard for further
32 processing' that has not been treated postharvest, not milk that is of a lower or higher standard.
33 Unfortunately some of the milk currently sold as raw has not been subject to a third party,
34 independent review/audit (during the milk harvest/storage phase) and may well be of a lower
35 standard, certainly to an unknown standard, and thus a higher risk.

36
37 The Code standards at;

38 <http://www.foodstandards.gov.au/foodstandards/foodstandardscode.cfm>

39
40 Deal with standards for 'retail sales of raw milk'; if these are the standards that MAF believe are
41 unattainable with a RMP, I see that it has no direct impact on this discussion. This is based on
42 the fact that this document and the current discussion is not about open, widespread third party
43 retail, it is about the limited sale direct from producer to consumer.

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1 This (opportunity under the APA) allows a set of regulations specific to this (specific product) to
2 be developed and applied.

3 **3.5 REGULATION OF RAW MILK PRODUCTS**

4 The category three (2009 review raw milk products) status for raw milk sales is at this time
5 an acceptable position, with of course the exemption of the direct sale (11A) of raw milk.

6 The dairy sector is hugely important to the NZ economy and issues that put this at risk need
7 careful management. This does not lie at just the regulators door but at all in the nation to
8 represent the sector fairly and to help progress the reputation of the agricultural sector.

9 The provision for some raw milk products under the 2009 standards is a great step for those
10 wishing access to these products, and does advance our international reputation for a
11 complex and sophisticated food range.

12 I believe we need also to be careful of potential (negative) comment re the 'hazardous'
13 nature of our base ingredient to processed dairy product. This is akin to classifying the base
14 (milk) a class A weed (equivalent) with the associated international trade issues.

15 A similar situation applies when implementing the 120 lt limit on the producer, this is a
16 trade cap on a product for sale; how does this fit with our various 'free trade' initiatives.

17 Without any record of who is trading in raw milk there is also a difficulty in ensuring that
18 various levies and other regulation are complied with.

19

20 **3.6 APPROACH TO MANAGEMENT OF OTHER HIGHER RISK FOODS**

21 The comparison to the egg sector is interesting.

22 The first point is that eggs arrive (ex the hen) already packaged, while the egg may be
23 subject to post lay contamination—this is very visible (dirt, faeces on the shell). There is still
24 the ability for a producer to deliver, sell at market or other avenues to facilitate the trade
25 direct with the end user.

26 With the limit of 100 hens for eggs, the MAF option for raw milk is considerably higher (by
27 serving, by value,), yet I would see the potential of milk contamination greater as it does not
28 arrive pre-packaged, it does require a considered approach to handling and
29 packaging/storage.

30

31 The risk to the greater economy and both national and international perception around
32 food safety in the event of a negative event is of no comparison.

33

34 **3.7 THE APPROACHES OF OTHER COUNTRIES TO RAW DRINKING MILK**

35 It is significant that issues we are addressing here are issues being addressed around the
36 developed world, the fact that internationally there have been various food safety
37 scares/issues over the last decade(or 2) is fuelling an international desire among a growing
38 proportion of the population to accept the responsibility for the food they consume. The
39 levels of civil disobedience and deliberate disregard for the prevailing
40 regulations/prohibitions as currently occurring in Canada (and others) are a clear testament

1 to this. The DVD 'Michael Schmidt: Organic Hero or Bioterrorist' is an excellent portrayal of
2 the issues from both sides of this topic. While it does not prove either side of the debate; it
3 does show the level of belief and commitment of both sides.

4 We pride ourselves on clean green and healthy food production in this country, we need to
5 exercise care not to jeopardise this by too lax nor to tight a regulatory regime.

6 The Canadian papers make much of the fact that Her Majesty the Queen and members of
7 her family consume and enjoy raw milk.

8

9 **4 Current issues with provisions for farm gate sales**

10 The idea put here that any RMP would and does remove all risk is nonsense.

11 To identify and manage the risks is not to say that all risk is removed. Notification of
12 potential risk to the end user is a risk management tool, see comment later re options.

13

14 The ambiguous nature of the wording (section 11A) does need clearing up. It is also
15 important at this time of review to address the reason that both producers and consumers
16 have looked to the ambiguity in an attempt to supply/procure a food. It is important that
17 the result of this review is both workable and removes the need to find / look for loopholes
18 to accommodate a legitimate act.

19 The limit of 5 litres (one gallon) 'at any one time' was arguably more related to the ability to
20 safely store until used (in the 1950s') as the MAF document points out fridges were not
21 common. This however would have allowed a consumer to purchase a further gallon once
22 they had used the first; the rice puddings my grandmother made used a full gallon!

23 The storage of a greater volume is today a much easier thing with fridges common place,
24 however a practical limit is the amount of fridge space allocated to any given product, most
25 consumers would not wish to have vast volumes of milk, but may due to household
26 circumstances (number of family members, time to next purchase) require more than the
27 proposed 6 litres.

28

29 The joint food code standards, standard 1.6.1 are (as I read them) for 'retail sales'. To
30 impose these standards would entitle the full and open trade at every 'retail outlet' in the
31 country. This is not the issue under discussion; the limitation on discussion is the direct
32 trade between the producer and the end user.

33 The labelling component exemption should, in my view, be removed to allow/ensure full
34 disclosure of the contents (of a given container). For persons not resident of a dwelling
35 seeking milk from the fridge at the said dwelling and thus be aware of the nature of product.
36 I have seen re used (still labelled) bottles of raw milk in a number of houses.

37 This would also give the opportunity to fully advise (State warning) of the MAF concerns.
38 It would certainly remove the practise among some currently of labelling raw milk for 'pet
39 food only', 'for bathing only', 'not for human consumption' and young children drinking this
40 from the fridge.

1 This practise, in an attempt to circumvent the regulations, has the potential to be habit
2 forming (lead to consumption of other material) in the young and **IS** high risk!

3

4 **4.1 REQUIREMENT FOR RISK MANAGEMENT PROGRAMME (RMP)**

5 The Animal Products Act states;

6 **'Part 1**

7 ***Preliminary provisions***

8 **2 Object of Act**

9 *The object of this Act is to—*

10 *(a) minimise and manage risks to human or animal health*
11 *arising from the production and processing of animal*
12 *material and products by instituting measures that ensure*
13 *so far as is practicable that all traded animal products*
14 *are fit for their intended purpose; and'*

15 The aim of the Act is straight forward and the Act is wide ranging in its ability to meet the
16 stated objective.

17 I have some trouble with the idea (promoted repeatedly in the discussion document) that
18 under the APA and in particular the RMP provisions that a strategy to; (from section 2 APA)

19 **'12 What is a risk management programme?**

20 *(1) A risk management programme is a programme designed to*
21 *both—*

22 *(a) identify; and*

23 *(b) control, manage, and eliminate or minimise—*
24 *hazards and other risk factors in relation to the production and*
25 *processing of animal material and animal products in order*
26 *to ensure'*

27 is unachievable.

28 Having identified the potential issues / risks it is then not a requirement to remove all of them,
29 but to manage or reduce. In this process information is the power tool for both the authorities
30 (knowing where the risk is coming from-the registered farm) and the consumer having it pointed
31 out that there is considered (by the authorities) to be considerable, moderate, extreme risk and
32 that the consumer uses this product accepting this.

33 I accept the MAF proposition; 'necessary to manage the risks are likely to be so stringent that
34 they would be very expensive to implement.' if the managed outcome was to be NO RISK, this is
35 not achievable as food recall after food recall has shown.

36

37 **4.2 INTERPRETATION AND ENFORCEMENT OF SECTION 11A OF THE FOOD ACT 1981**

38 Section 11A has been through various regulatory processes from 1952/6 to today, the intent
39 was, as it should be today, to serve the needs of the people of NZ, while applying a
40 regulatory approach to overall safe practise.

41 In this section of the discussion document it is clearly stated the extent to which both
42 producers and consumers have and are going to in order to meet there need—perceived or
43 otherwise.

44 The world is a very different place to 1952/6, and we need to look at this. The number and
45 size of dairy farms has changed. Many that are now marginal units would have been

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1 considered sizable in 1952/6—the figures are available. One clear intent was that the billy of
2 milk could be part of the farm wage, a good number of farms (today) would use close to
3 their total entitlement (under the proposed 120lt rule) for farm staff .

4 The Adelaide (South Australia) papers in early 2011 were full of the probability that the only
5 milk rural towns outside the main centres would have access to in the foreseeable future
6 would be UHT milk. This is untenable in a developed country.

7 The makeup of rural communities is also different with many non-farming folk buying class
8 A land and running a few stock. As a recreation and for their own use there is no issue. If
9 these are the people MAF wish to see as the providers (into the future) of raw milk (the 1- 6
10 cow type scale) without overview then the MAF proposed option 3 is a path to disaster. This
11 is not to state that there are no good and knowledgeable operators at this level, it is to note
12 that we now have some 55,000 lifestyle blocks in NZ and the potential is there.

13 The demand is there from some of the public, the wish to meet this demand is exhibited
14 (raw milk clubs, cow share, etc.) in this section of the document.

15 The challenge is to step up to the plate and not wait until a complaint or mishap (as
16 proposed in option 3) has caused a health incidence. This will have consequences for the NZ
17 dairy reputation.

18 It could be said much of the current discussion is due to the lack of understanding and fear
19 (by farmers) of the regulations and this brought about by the lack of Government support to
20 the various agencies that are charged with promoting and implementing the regulations.

21

22 **Let us seize this opportunity to install a piece of regulation that meets the current and**
23 **future need, while respecting the historical, yet not trying to remain there. Remember**
24 **section 11A has been in service for 60 odd years (about 3 generations), we need to ensure**
25 **that the outcome of this review will serve NZ for the foreseeable future rather than just**
26 **the moment.**

27

28 **4.3 CHANGE IN CONSUMERS AND DEMAND FOR RAW MILK**

29 I am not aware of any of the dairy farmers I work with that purchase milk, (other than when
30 the cows are dry). Many freeze milk in the autumn for winter use. Perhaps it is the physical
31 work and robust childhood play on these farms (and consumers of raw milk) that accounts
32 for the use of full cream/fat milk and anywhere possible the use of plenty of cream!

33 *'Assuming'* (4.3 para. 2 line 4) such things as this is not a good basis for legislation.

34 I would further suggest that yes there are farmers that don't drink the product they
35 produce—and if you tasted it you would not either!

36 Milk is the product of the environment in which it has been produced. Some is excellent,
37 most is great, an increasing amount is of concern!

38 I agree that the average consumer is removed from the food they eat. This is the reason for
39 rural / urban days. It is also an aspect of the family that draws some to raw milk, when
40 children believe milk comes from the supermarket, and ask what do they do with all those

1 cows in the fields, parents start to question themselves. It is currently a worldwide issue—
2 non-farm folk wishing to reconnect to the source of their food.

3

4 It is also here important to look at the changing rural make up. There is significant
5 subdivision in isolated areas. A clear example of this would be Mokau, while there are
6 several café's /dairies in the area, it is a hour drive to TeKuiti or Waitara, the nearest real
7 retail choice, supermarkets/mini-markets. This area, while agricultural, has minimal dairy
8 units/farms. The maximum (proposed) of 120lt per farm would remove options (legal) from
9 this community; Mokau is not the only, nor the worst example.

10

11 It is the full range of change (now and into the future) in consumers that does need to be
12 addressed in the present review. The consumer is currently driving up to an hour from their
13 home to purchase raw milk, then transport it in a chilly bin (with ice) home. **The desire for
14 the product is such that it deserves the respect of the regulators and any changes need to
15 accommodate both supply and access to raw milk that is fit for purpose and subject to a
16 considered regulatory third party verification programme.**

17 Currently I put that most buying and selling raw milk do so with a passion for the product.
18 As we move forward an increasing number will do this solely for financial gains (cheaper
19 milk for some, higher returns for others), this brings with it a higher risk.

20 It is also important here to seriously give forward thought to the changing rural business
21 make up. Many small dairy units are looking at the option of supplying milk to a range of
22 small processors (operating under RMPs); the ability to add raw milk gate sales to the mix is
23 an important part of this business redesign.

24 Processors like Fonterra have made it clear their position on farmers selling under the 5 litre
25 rule (11A); this is evidenced in the Q&A in March 2011 with the Fonterra Organic
26 Shareholders Group, Fonterra circulated this to all contracted for organic supply;

27 **C/ Contract matters.** (relating to the contracts offered in January 2011)

28 Q-C/1. Clause 6 Supply.

29 Could you please clarify the term 'the suppliers entire production of organic milk...'in clause
30 6?

31 Please include in the answer reference to;

32 • The 80/20 rule.

33 • **The 5 litre farm gate rule (Food Act 11a)**

34 • Calf rearing milk.

35 • Farm use milk.

36 • Colostrum, milk withheld due to SCC(possibly sold to other farmers), treatment etc.

37 Answer;

38 The opening words of clause 6 say "Subject to any applicable laws". Therefore the
39 obligation on a supplier to supply their entire production of organic milk IS subject to the
40 80/20 rule (assuming that you are referring to s. 108 of DIRA). Clause 6 is also subject to the
41 Fonterra Constitution (see clause 3 of the contract: the Constitution is part of Fonterra's
42 Standard Supply Terms as defined), which in clause 9.1 states that a supplier's obligation to
43 supply all the milk produced from its farm excludes milk for calves and milk for personal use.

1 We have not previously encountered any supplier query or concern in relation to the
2 5 litre
3 farm gate rule in s.11A of the Food Act. **Fonterra is not “required” by the Food**
4 **Act to allow**
5 **suppliers to sell their milk to third parties, and this is not a permitted exception**
6 **in clause 9.1**
7 **of the Fonterra Constitution. Therefore our view is that suppliers are not able**
8 **to sell the**
9 **limited quantity of milk permitted by S.11A from the farm gate (noting also the**
10 **limited**
11 **circumstances in milk could be sold).**
12 *In relation to milk withheld due to SCC the Fonterra’ Supplier’s Handbook sets out in clause*
13 *4.13 the obligations on suppliers in relation to reject milk. Suppliers are required to dispose*
14 *of such milk at their own cost.*

15
16 There is a changing dynamic in the dairy sector, this needs to be catered for in future
17 proofing the regulations by way of this review.
18

19 **5 Options for farm gate sales of raw milk**

20 21 **Option 1;**

22 As pointed out in the MAF discussion document, the Food Bill has removed limits on the sale
23 of raw milk. This can be amended at the second reading (I understand), providing provision
24 for the restricted sale between ‘producer’ and ‘consumer.

25 The APA requires management of risk in association with animal product trade.

26 *The object of this Act is to—*

27 *(a) minimise and manage risks to human or animal health*
28 *arising from the production and processing of animal*
29 *material and products by instituting measures that ensure*
30 *so far as is practicable that all traded animal products*
31 *are fit for their intended purpose; and*

32 33 **Option 2;**

34 As stated earlier I favour this option with regard to the need to provide a regulated
35 framework for the trade in a potentially hazardous animal product; as required by the act,
36 and more importantly by common sense.

37 The MAF rejection of this option would appear to be based on the concept that a RMP is
38 unachievable. I need some convincing that an RMP for a particular animal product cannot
39 be developed and measured against a set of standards or requirements.

40 I am lead to this doubt by referencing the APA and in particular the words in bold;

41 **12 What is a risk management programme?**

42 *(1) A risk management programme is a programme **designed to***
43 *both—*

44 *(a) **identify**; and*

45 *(b) **control, manage, and eliminate or minimise—***

46 *hazards and other **risk factors** in relation to the production and*

1 processing of animal material and animal products in order
2 to ensure that the resulting animal product is **fit for intended**
3 **purpose.**

4 (2) Risk factors may relate to the **nature of the animal material** or
5 product concerned, or to the **production, processing, preparation,**
6 **distribution, trade, or intended use of the animal material**
7 or product.

8 (3) Risk management programmes are to be **individually tailored**
9 for **each animal product business**, having regard to—

10 (a) each **type of animal material** and animal product that the
11 business produces or processes; and

12 (b) each **type of process** or operation that is applied to the
13 animal material or product; and

14 (c) each set of premises or place in which the animal material
15 or product is produced or processed.

16
17 And that the opportunity here is to set the standards/specification for the specific animal
18 product as provided for in Section 4 of the APA, again the words in bold in particular;

19 **42 Object of this Part**

20 The object of this Part is to provide for—

21 (a) the **setting of standards** that **must** be met by any animal
22 product intended for trade or processed for reward before
23 it may be considered **fit for intended purpose**; and

24 (b) the **setting of specifications** that may be necessary or
25 **desirable to ensure** such standards are met.

26
27 This I contend relates to the management of common risk and the necessary passing on of
28 information the consumer reasonably needs to identify remaining potential (i.e. this product
29 may contain nuts) risk. This allows the regulator to carry out their responsibility while
30 allowing the consumer to carry out their final determination on the question, having been
31 giving the areas of doubt by the regulator, **'is this animal product fit for purpose?'** This
32 responsibility of the carer/provider of nourishment to those one provides for is a
33 fundamental animal right, that a provider has the final determination.

34 The animal product in this case is 'raw milk for direct trade between producer and
35 consumer' and the regulation could/should provides the limits as it does for homekill or
36 catch in later sections of the Act.

37 38 **Option 3.**

39 I fully reject this option.

40
41 While MAF point out continually in the discussion document that the risks are
42 unmanageable, to then say a set of non-audited standards that are still required to meet the
43 Code will provide for public safety is challenging to say the least; I put that while APA
44 Section 9 is referred to (6.2 page 16 para. 2), that particular attention needs to be paid to
45 Section 9.2 APA;

46 (2) The **Minister may not recommend** the making of an order

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1 under this section unless the **Minister is satisfied**, having regard
2 to the matter to be exempted, that—
3 (a) the **risk to human** or animal health of providing the exemption
4 is **negligible**; or
5 (b) there are **other sufficient safeguards**, whether by way of
6 regulated control scheme or in other legislation or by
7 other means, **to minimise** any risk to human or animal
8 health involved in providing the exemption.
9 (3) In determining whether or not to make an order under this section,
10 the Minister is to have regard to the following considerations:
11 (a) **the need to protect the health of consumers and users of**
12 **animal products**:
13 (b) the desirability of facilitating market access:
14 26
15 Reprinted as at
16 7 July 2010 Animal Products Act 1999 Part 2 s 11
17 (c) the desirability of maintaining consistency between
18 New Zealand's animal product standards and any
19 relevant standards, requirements, or recommended
20 practices that apply or are accepted internationally:
21 (d) the relative costs of having the exemption or not having
22 it, who bears the cost, and the positive and negative
23 impacts on New Zealand consumers and users:
24 (e) the most effective way of managing the relevant risk
25 factors:
26 (f) such other matters as the Minister considers relevant.
27 (4) The Minister may not recommend the making of an order
28 under this section unless satisfied that appropriate consultation
29 has been carried out in accordance with section 163.
30 (5) An exemption under this section may have retrospective

31
32 While the idea of no RMP is and will be very appealing to many, it flies in the face of the
33 proposition of risk presented at every turn throughout the discussion document.

34
35 To put forward the argument that the unaudited practises of unknown producers meets
36 the requirement of section 9. 2(b) is, to my mind, nonsense.

37
38 Given that the other measures as outlined (section 6 of document by MAF) to provide
39 this level of **safeguard**, why can these not then form the base requirements of a RMP or
40 RCS for the restricted sale of raw milk from producer to consumer.

41
42 To remove or attempt to remove the compliance mandate for this product I tender is
43 nothing more than an attempt to shift the responsibility of any future health incidence
44 (which clearly MAF see as unavoidable) from the Ministry to the Minister.

45
46 This view, is I believe further supported by the 1st and 4th paragraphs of the next section
47 (5.2) of the document.

48
49

5.2 OPTIONS OUTSIDE THE SCOPE OF THIS REVIEW

As stated in para 2, the revocation of Section 11A will remove the restrictions on all sale of raw milk. This could (subject to the category 3 regulations) allow a producer to retail via third party as much raw milk as the demand allowed subject to meeting the Code (3.4 MAF discussion Document). MAF have however stated constantly in the document that they;

Option one –table page 12,

Farm gate sales of raw milk may be shut down for the foreseeable future because the requirement to operate under a registered RMP is not viable for the following reasons:

o MAF is not aware of any practical or cost effective way of managing the food safety risks associated with raw drinking milk and so it is unlikely that a suitably validated RMP would be developed for evaluation and approval.

And that it is for this reason no action is not an option (last line p11)-----I fully agree that taking no action is not an option.

As stated earlier in this submission, I put that it is time to step up to the plate and provide a regulatory framework that meets the APA and the needs (perceived and otherwise) of a growing number of NZ citizens.

To achieve this I believe a working group of those involved in this field of endeavour should be formed by the Minister to develop the required standards/regulation for this restricted practise.

Other reviews that considered sale of raw drinking milk (page 12)

The concerns raised in this section are very real.

As a trading nation we must all ensure that issues are dealt with in a way that does not put at risk our futures. Historically it has been commercial dairy farmers with the associated knowledge and expectation of the wider industry that have provided raw milk (even accepting this has been outside the regulation). This in itself has provided a certain degree of risk management. This has changed gradually (yet considerably) over the last 60 years as industry expectation and technological advances have been implemented.

Important points in the wider issues are the potential impact on international reputation and trade by;

- Not having an audited food (raw milk) supply.
- The inability to manage any ‘incidence’ relating from raw milk sales—it is hard to manage something you have minimal information on. This is basis for implementing NAIT after-all.
- Having provided some conditions to legally carry out trade; to then cap the volume of that same trade—this is hardly supportive of the NZ stance on international free trade.

Throughout the discussion document the term ‘*commercial scale sale*’ is used. This term means different things to different people. Is it based on volume (total or individual sale), on value or the widespread nature and openness to commercialese (full retail) the said product?

The limitations of ‘direct trade between producer and consumer’ by its’ very nature, I would contend, prevents the ‘commercial scale sale’.

5.3 ANALYSIS OF OPTIONS

I find the criteria against which the options are **evaluated very acceptable**. Yet I find that the MAF preferred option 3 fails arguably the most important criteria(in bold);

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- 1
- 2 • *Continues to provide for farm gate sales of raw milk as originally intended*
- 3
- 4 • *Ensures there is no increase in the risk of food borne illness from drinking raw milk*
- 5
- 6 • *Ensures there is no increase in costs to dairy farmers*
- 7
- 8 • *Requirements are clear and impose the minimum regulation necessary*
- 9
- 10 • *Must be enforceable.*
- 11

12 This last item is then supposedly satisfied in option 3 by the comment (from the table
13 option3)

14 *MAF will have **little regulatory oversight** of what is a high risk product, particularly where a*
15 *dairy farmer does not hold an RMP for other milk harvesting activities.*

16

17

18 As I have stated in this submission, there are a growing number of small holders and small
19 farms that are trading outside a milk harvest RMP.

20 There are various aspects of option 3, in my view, that will in fact lead to the increase in
21 food borne illness from raw milk. These will be covered in section 6.

22 **6 Recommended option**

23 **I believe the first paragraph has been dealt with in the previous section. I do note that it**
24 **was 5.3 not 5.5 (as stated here) so hope we are all working from the same document.**

25

26 **Limited conditions of sale:**

27

28 **Bullet point one;** fully agree; as stated I do not believe we are ready or are the market size to
29 accommodate at this time the third party trade in raw milk for consumption.

30 **Bullet point two;** I see no benefit in limiting either aspect if the product is produced and
31 handled in a controlled manner, and the consumer is advised of any potential risks. I further see
32 this course as an invitation to those (both producer and consumer) who are currently working
33 outside the regulations to continue to do so. The NZ Herald (page A6) on the 1st Dec 2011 cites a
34 farmer selling 3000lt a week. This restriction will ensure further non compliance and an attitude
35 that is negative toward regulation and regulators. A path we do not need to venture down.

36 **Bullet point three;** the acceptance that the electronic age is here is a great example of how the
37 modernisation of trade can be brought to play with regard to raw milk sales. The need to
38 personally inspect/view the farm dairy(at every purchase) also needs to be brought up to this
39 age. See comments 'desired outcome'

40 **Bullet point four;** here again the highest risk period in the raw milk chain is the consumer
41 collecting milk (often in their own container of unknown sanitation) and transporting it home
42 with sometimes inadequate temperature control, especially when unforeseen delays happen.
43 Again I put that with modern technology and audited systems the limit of direct sale and off

1 farm collection (not trade) can be accommodated whilst retaining the limitations of direct sale.
2 See comments desired outcomes.

3

4 **Animal health and hygiene requirements:**

5

6 **Bullet point one;** agree---include in a regulatory audited standard.

7 **Bullet point two;** agree---this is already covered in a milk harvest RMP, and dairy industry
8 standards.

9 **Bullet point three;** agree---this is already covered in a milk harvest RMP, and dairy industry
10 standards.

11 **Bullet point four;** agree---what some people consider clean would arguably not meet current
12 industry standards, auditing removes this---put it in an auditable RMP or RCS.

13 **Bullet point five;** strenuously disagree; this is contrary to what MAF state earlier in this
14 discussion document; **3.2 FOOD SAFETY RISKS ASSOCIATED WITH RAW DRINKING MILK**
15 *While MAF does not recommend drinking raw milk, if consumers choose to drink it MAF*
16 *recommends they minimise the risk of food borne illness by ensuring:*

17

18 • *Raw milk is kept under refrigeration (4°C or less)*

19

20 • *Raw milk that has spent more than two hours at room temperature is discarded,*

21

22 The various milk regulations that the industry works to currently has milk temperature down to a
23 maximum temperature within the 120 minute time frame. This is regulatory, auditable product
24 quality assurance—oh it is also common sense—most parents /caregivers /providers of
25 food/people would be having a serious talk to their dependants/co inhabitants should they
26 repeatedly leave a jug/bottle of milk at room temperature(this is from a chilled state) longer than
27 required for the task at hand particularly over the warmer months.

28 The suggestion MAF make in this discussion document is nothing short of ludicrous.

29 See comments in desired outcomes.

30 **Bullet point six;** agree---put it in a RMP or RCS doc. And let's audit it. Hell we have to record
31 animal treatments and comply with many aspects of record keeping. This would also be useful for
32 ensuring the industry levies are paid.

33

34 **Other risk management practices:** agree—again put it in an auditable form and we are
35 minimising the risk and thus meeting the expectations of the APA and society in general.

36

37 **6.2 EXEMPTION FROM REQUIREMENT TO OPERATE UNDER A REGISTERED** 38 **RMP FOR FARM GATE SALES**

39

40 The only purpose I see in the first paragraph is to distance MAF from the enforcement, auditing
41 and compliance aspects of the APA, whilst still expecting the producer to be subject to the
42 general requirements of the APA , Food Act, and the Code.

43 This is to my mind an act Pontius Pilate tired some 2000 years ago!

44 Paragraph two I have dealt with on page 11 starting at line 41 and again challenge the concept
45 that risks will be managed when the only oversight is based on failure---this is NOT
46 management—this is abdication of responsibility and puts the entire agriculture sector at risk.

1 Paragraph three again says how un-manageable the risk is;
2 *This option recognises that MAF is not aware of any practical or cost effective way of managing*
3 *the food safety risks associated with raw drinking milk.*

4
5 Having in the paragraph immediately prior stated;
6 *Any exemption from the requirement to operate under an RMP is required under section 9 of the*
7 *Animal Products Act to be on the basis of there being other **sufficient safeguards in place to***
8 ***minimise any risk to human health.***

9 And to carry on and say;
10 *Risks would be managed through the limitations on sale, animal health and hygiene*
11 *requirements, and guidance material for farmers and consumers as described in section 6.1.*
12 So these safe guards should be able to be audited.

13 At the end of this paragraph MAF talk about a review should new technology....., the raw milk
14 production of today has seen so much new technology and training and all manner of
15 improvement based around risk minimisation since the 'original intent' or need some 60 odd
16 years ago. Surely this has been achieved and will continue to be advanced.

17 And the final paragraph where the focus would be on intermittent surveys and spot checks of a
18 sector that has no formal requirement to register their trading in raw milk direct to consumer.
19 These would be a waste of the minimal resources that are available to the Government
20 agencies.

21 The first step in risk management is to identify the potential risk and in particular the source of
22 the potential risk—in this case the point of production. MAF, it would seem, would rather see a
23 hearse at the bottom of the cliff.

25 **6.3 CONTINUING THE LEGAL PROHIBITION ON COMMERCIAL SCALE SALE**

26 At this time I fully support the prohibition on trade other than from farmer/producer to
27 consumer/end user.

28 I believe some work can be done around the definition of 'farm gate' however. See desired
29 outcomes.

31 **DESIRED OUTCOMES**

32
33 Below are the base of what I believe will serve both the agricultural sector and consumers in
34 general with a future of choice while protecting the interests of those that choose not to
35 follow this choice path; while still protecting the wider interests of NZ society.

- 36
37 1. That raw milk is limited to trade between the producer and consumer.
38 2. That the producer be registered as a raw milk provider with a central agency.
39 3. That some form of audited protocol for the harvesting and handling of raw milk be
40 established. Whether this is a RMP, RCS, or some other name/protocol it would
41 serve to provide clear expectations to and of the producer and give the consumer
42 the information to base any risk analysis during the purchase process.

- 1 4. That the milk harvest protocol would be similar to the existing expectation with
2 regard to milk harvest and quality(SCC,etc) for supply to Fonterra and other
3 processors.
- 4 5. That a testing regime is implemented and the information of milk makeup and
5 quality is available to consumers.
- 6 6. That the potential contaminants from animal health intervention (antibiotics,
7 drench, etc.) and herbage/soil applications be minimised by having double the ACVM
8 withholding period. I believe this is justified given that the processing companies
9 monitor this constantly and manage product accordingly. It is also a common
10 element of concern to the raw milk consumer and an increasing threat to human
11 health through exposure relating to increase treatment resistance and general food
12 contamination/residue.
- 13 7. That temperature chains are maintained in line with current industry expectations.
- 14 8. That only new one time use or suitable reusable (subject to an onsite sanitation
15 regime) containers be used. That only trained operator fill containers.
- 16 9. That the filling area meets a set of standards that is suitable for the scale and
17 purpose.
- 18 10. That labelling as per the Code, harvest date, producer detail be mandatory.
- 19 11. That there be no limit on the amount a person may sell or buy in registered trade.
- 20 12. That a dairy operator may deliver via a secure self-operated temperature control
21 chain to a household, temperature controlled depot for pre-purchased product to
22 clients that have registered as clients by way of a registration form giving relevant
23 detail, for traceability, and a statement that they visit the farm dairy at least twice a
24 year. Any temperature controlled depot would be accessible only by way of an
25 issued key/card. This would be considered an extension of the farm gate in line with
26 electronic transactions. With the improvements in temperature control in particular
27 this would remove significant risk to the raw milk. The relationship between the
28 producer and consumer is maintained—the original intent of knowing where and
29 who the milk is sourced from. This is not intended to facilitate other sales.
30 This also minimises risks under the OHS Act, aspects of the egress laws from main
31 roads, etc.
32 And that this is subject to an auditable protocol under the same/similar frame work
33 to the raw milk harvest.

34 With regard to the original intent regarding farm workers, I believe a clause/provision
35 similar to APA Part 6 , Section 67, clause 2 would clear issues of supply of raw milk to said
36 farm staff. I put that this section of the Act also provides some relevant guidance to deal
37 with issues around avoidance of the rules. However the best path to secure that outcome is
38 to provide a secure workable structure with understood and appropriate regulation.

39

1 To achieve a positive and structured path forward I contend that the Minister create a
2 working party made up from the various groups represented via submission to take this
3 issue/opportunity forward.

4
5 With regard to the disadvantages of MAF option 1 & 2;

6
7 *Enforcement of the RMP requirement would shut down all current farm gate sales of raw*
8 *drinking milk.*

9 *Farm gate sales of raw milk may be shut down for the foreseeable future because the*
10 *requirement to operate under a registered RMP for this activity is not viable for the reasons*
11 *outlined under the analysis of option 1.*

12 I ask that consideration be given by the Minister to setting a time frame for existing
13 operators to become compliant, thus alleviating the risk of further and continued concern
14 and creating an atmosphere of openness and willing cooperation.

16 **Conclusion;**

17 While there are no registered RMP's in operation, there is a wide range of standards and
18 protocols that dairy operators/producers are applying. These go from operations that I
19 would not purchase milk from to ones that operate in full facilities set up for the handling,
20 bottling and cool storage of raw milk. Many are keeping full records re sales—to satisfy
21 internal aspirations of risk management.

22 Some have set up farm shops selling a range of producer to consumer products. The
23 limitation of the proposal (120lt) would have impact on very good operations, in fact I would
24 suggest these standard setters that are providing risk managed product be used as model
25 operations for the future..

26 The opportunity to get this right will minimise the future risk on many fronts. I submit that
27 among the producers I work with there is a genuine willingness to work to achieve a viable
28 real world solution.

29
30 **I contend that we are no longer in the past and it is time to revamp raw milk marketing**
31 **regulation to meet the current on farm technology and expertise and the growing market**
32 **demand while at the same time providing a developed nations consumer protection**
33 **expectation through regulation.**

34 **It is also vital to consider international perception as indicated in this submission.**

35 I look forward to reading other submissions and assisting in way possible to move this issue
36 to a satisfactory position.

37
38 Bill Quinn

39 Organic Promotions.

40 RD 4 Paeroa.

41 **'Organics—integrity through transparency'**

42 www.organicag.co.nz

Biodiversity of microfungi in soils, plant roots and foods: a comparison between organic & conventional agricultural ecosystems

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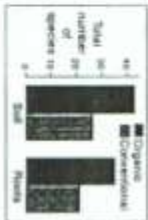
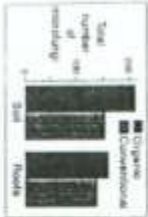
Introduction
Microscopic fungi (or microfungi) colonise most known substrates. Fungal spores of soils, plant roots and foods have a wide range of taxonomic diversity. Fungi obtained from organically cultivated soils, plant roots and organically produced fruit and vegetables can be distinct to that found in conventional cultivation and food production.

Pastoral agricultural soil & plant roots

Standard microbiological techniques were used to screen soils and pasture plant roots for the number and type of microfungi present. Soils and pastures from both organic and conventional farms were sampled.

What we found

- Both numbers and biodiversity of microfungi of soil and past roots was significantly higher in most organic samples.



- Potentially beneficial fungi were also obtained in higher numbers from organic soils than were recovered in conventional soil and root samples.

Percentage of potentially beneficial microfungi isolated from soil and roots

Microfungal	Organic	Conventional
Deuteromycota	7.1%	4.6%
Ascomycota (Ascomycota)	8.1%	3.1%
Basidiomycota (Basidiomycota)	4.7%	1.2%
Phycomycota	2.3%	0
Zygomycota spp	12.2%	8.8%
Total beneficial fungi	32.2%	18.6%

- Glucanase, chitinase and Trichoderma spp., are taxa associated with soil pathogenicity as well as being good decomposers of cellulose.
- Phycomycota (Phycomycota) is a bacterial agent against plant parasitic nematodes in soil.
- Phycomycota is a good decomposer of lignin.
- Penicillium and other producers of antibiotics which may antagonise other detrimental microbes.

- Potentially harmful plant pathogenic microfungi were also found in correspondingly lower numbers from organic soil and root samples.

Percentage of potentially harmful plant pathogenic fungi isolated from soil and roots

Microfungal	Organic	Conventional
Chytridiomycota	2.4%	2.5%
Phycomycota	<1%	0
Ascomycota	2.8%	3.5%
Basidiomycota	<1%	5.2%
Total harmful plant pathogenic fungi	8.5%	18.2%

- All four species listed above can cause root rot disease on seedlings and plants of important agricultural species such as red and white clover.

Conclusions

Microbial numbers and species richness were greater in cultivated organic soils and plant roots.

Organic soils had higher numbers of beneficial species and a lower number of harmful pathogens.

Therefore the contribution of microfungi to soil health in organic agricultural ecosystems may be greater than that found in other agricultural ecosystems.

Fruit & vegetables

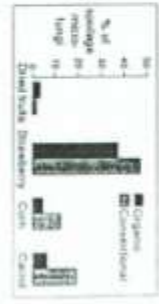
Eight organically produced vegetable and fruit commodities, strawberries, carrots, corn, dried fruit products (raisins, apricots, dates, prunes, figs), were sampled to ascertain presence and biodiversity of foodborne microfungi. The same types of conventionally produced commodities were also sampled.

What we found

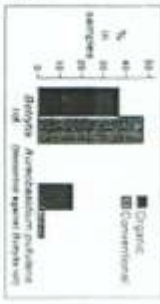
- With the exception of the corn samples, the biodiversity of microfungi was observed to be greater on all organically produced foods.



- Potentially hazardous food spoilage and toxin producing microfungi were more commonly isolated from conventional fruit and vegetable samples than organic samples.



- An additional observation from strawberry samples was that the total fungal biomass (measured as DNA) was more commonly isolated from organically produced strawberries.
- In contrast, Ascomycota (Ascomycota) (a protective biocontrol agent against Botrytis (Botrytis cinerea) rot) was a more prevalent coloniser of organically produced fruits.



Conclusions

Food safety testing showed that spoilage and toxin producing species were found more often in the conventional samples.