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***Re removal of dairy goat exemption for NLIS tagging***

I have read the “Desktop Review of NLIS Tagging Options for Australian Dairy Goats” available on the GICA webpage ([http://www.gica.com.au/latest-news/consultation-on-the-removal-of-nlis-tagging-exemption-for-australian-dairy-goats?utm\\_source=TN\\_MLA-Master&utm\\_medium=Email&utm\\_campaign=GOTM\\_Newsletter\\_-\\_20160121](http://www.gica.com.au/latest-news/consultation-on-the-removal-of-nlis-tagging-exemption-for-australian-dairy-goats?utm_source=TN_MLA-Master&utm_medium=Email&utm_campaign=GOTM_Newsletter_-_20160121)) and offer these comments:

- Pygmy goats are now a breed that is recognized in Australia after embryo and semen introductions from the USA – see <https://www.facebook.com/groups/australianpygmygoats/>
- Also the myotonic goat breed also needs to be added to this review– see <https://www.facebook.com/groups/1828951367346526/>
- While several reference by Carné were quoted, the work on mini-boluses was not mentioned nor was the finding of “These results support the use of properly designed boluses as a unique identification device for the entire lifespan of goats.”<sup>i</sup> Another reference, again by Carné as the lead author, and about leg tags was also not mentioned.
- The results and photos in this review were only from four Australian dairy goat properties and hence is a very small sample size and range of environments. Fencing and feeder structures are important in accidental tag removals e.g. properties with metal or fence-line feeders are more likely to result in torn ear tags.
- The risk of transfer of CAE via ear tagging is not mentioned. The spike of the tagger needs to be cleaned & disinfected between each goat.
- Only Allfex ear tags were discussed in the report.

I am fully aware of the review of the UK Foot & Mouth Disease outbreak and hence the need for rapid access to animal movements. I am also aware of the ability to quickly track and map cattle movements due to electronic tags and readers.

In contrast to the four commercial goat farms that use ear tags, there are many others that don't e.g. at least five Qld registered dairy herds that I have recently visited. Also many large dairy goat herds overseas manage well without ear-tagging. An internet search shows large overseas dairy goat herds without ear tags e.g.

- Ireland 800 head [http://www.agriview.com/briefs/dairy/rotary-milking-system-honored/article\\_25d36832-9dc2-56e3-a971-a914ac64b000.html](http://www.agriview.com/briefs/dairy/rotary-milking-system-honored/article_25d36832-9dc2-56e3-a971-a914ac64b000.html)

- USA fully automated Saanen herd  
[https://www.youtube.com/watch?v=YoT2cx\\_n4gE](https://www.youtube.com/watch?v=YoT2cx_n4gE)
- Mixed US dairy goat herd, Iowa <https://www.youtube.com/watch?v=14AZ8zFr6JO>
- Mixed US dairy goat herd used for soap making  
<https://www.youtube.com/watch?v=O1AMH7wymMg>
- US goat cheese maker [farm https://www.youtube.com/watch?v=9BKrY15BrE0](https://www.youtube.com/watch?v=9BKrY15BrE0)

## Recommendations

1. That ankle strap and rumen bolus RFID devices be allowed alternatives to ear tags to allow for automatic herd recording and other automation. Rumen boluses have the advantage that they can't be cut off like ear tags and ankle straps and hence make it easier for Police to prove goats were stolen.  
As the Afimilk sheep & goat dairy website (<http://www.afimilk.com/products/sheep-goats/id-tags>) states not all milk parlours can be automated with ear tags i.e.

“The identification solutions are varied and include ear tags, boluses, and leg tags, and are suitable for different types of parlors side by side, rotary, per stall and entrance ID according to the requirements of the user.

Currently the system complies with HDX tags due to their superior identification quality and with ISO standards ISO-11784 and ISO-11785.”

	Side by side entrance	Side by side per stall	Rotary entrance	Rotary Per stall	Sorting system
Leg tags	√	√	√	√	√
Ear tags	√		√		√
Bolus	√	√	√	√	√

Ankle tags with transponders meet the International Committee for Animal Recording requirements for official identification of adult goats (readability >98%).<sup>ii</sup> Ankle tags (also called leg tags) are commercially available and used overseas e.g. Afimilk or as shown below, Ketchum (<http://www.ketchum.ca/blog/leg-band>).



2. The current situation where goats with implants or rumen boluses in some states also require a management tag to be added to the ear of such goats The requirement for goats with implants or rumen boluses to also have a management tag should be removed in favour of a specific tattoo (similar to that used in dogs or cats that are spayed).

3. Concerns about rumen boluses, implants or RFID implants entering the food chain could be overcome by the use of the Property Registration System (PIC) which has a miscellaneous or query database field that could be used for dairy goat properties using rumen boluses or implants. These properties would not be allowed to sell via saleyards or to abattoirs.
4. Allowances must be made to allow replacements does to grow to 6 months of age before ankle straps are applied.<sup>iii</sup> The UK does not require goats to be identified until 6 months of age (if housed) or 9 months (if not housed), unless moved off the property (see <https://www.gov.uk/guidance/sheep-and-goat-keepers-how-to-identify-your-animals> ). Tattoos can be used if doe kids are sold before then or ear tags added for male or cull kids sent for slaughter.
5. Further work needs to be done on options for tiny eared goats, although ankle tags and rumen boluses would work well and would be my recommendation for RFID devices. LaMancha and other small eared goats are tagged in the tail in Canada – see <https://www.youtube.com/watch?v=fWosxwx9KTc> or search for “Tail tagging a Goat” and further information can be sought from the Canadian project looking at goat ID. I have concerns about faecal contamination of tagging kids near the tail. This video shows a commercial LaMancha herd with tagged collars - <https://www.youtube.com/watch?v=lfwzy4actTA> . However my recommendation would be to use rumen boluses, implants or ankle tags in goats of the LaMancha breed.
6. Work with the dairy goat groups i.e. Dairy Goat Breeders Association and Australian Dairy Goats Inc. to negotiate a way of increasing awareness and preparation for a Foot & Mouth Disease outbreak. Dairy goat owners do NOT want to ear-tag stud goats as there are problems with tags being torn out, tags damaging ear carriage and tags causing infections as shown in the following photos. Most dairy goat owners have small numbers of goats and no awareness of the damage an outbreak of Foot & Mouth Disease could do to Australia for many years. There is an urgent need to improve Foot & Mouth Disease awareness and education amongst goat owners. There is potential for a non-confrontational approach to ear tagging and education about Foot & Mouth Disease. One example could be goat owners wishing not to apply ear-tags could do so if they did Foot & Mouth Disease awareness training. Alternatively the Dairy Goat Society of Australia could be asked to provide two members trained in the role of “Liaison — Livestock Industry” for State Coordination Centres or Local Control Centres for each state.  
Government departments do not have the resources to monitor tagging in dairy goats (or any pet goats). There is therefore the potential for a dairy goat industry Code of Conduct to introduce identification methods that could be self-regulated. For example Dairy Goat Society of Australia could be asked to ensure stewards monitor ear tattoos of goats with rumen boluses that attend shows or milk competitions. However this requires a good relationship with the dairy goat owners. The large commercial herds surveyed are not representative of the majority of dairy goat owners, although they have the most goats.

## Deformed ear carriage



Image source = <http://www.fullwood.com/c/goat-and-sheep-parlours>

## Infection from torn out ear tag



From a NZ commercial dairy goat herd (see <https://www.tvnz.co.nz/one-news/business/research-aims-to-further-boost-dairy-goat-production-6310276>)



## Infection due to ear tag



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## Feeders more likely to tear ear tags





Photos of torn infected and deformed ears from the above property



















Carne, S., G. Caja, M. A. Rojas-Olivares and A. A. Salama (2010). "Readability of visual and electronic leg tags versus rumen boluses and electronic ear tags for the permanent identification of dairy goats." *J Dairy Sci* **93**(11): 5157-5166.

Castro, N., D. Martin, A. Castro-Alonso, A. Arguello, J. Capote and G. Caja (2010). "Suitability of electronic mini-boluses for the early identification of goat kids and effects on growth performance and development of the reticulorumen." *J Anim Sci* **88**(10): 3464-3469.

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<sup>i</sup> Castro, N., D. Martin, A. Castro-Alonso, A. Arguello, J. Capote and G. Caja (2010). "Suitability of electronic mini-boluses for the early identification of goat kids and effects on growth performance and development of the reticulorumen." *J Anim Sci* **88**(10): 3464-3469.

<sup>ii</sup> Carne, S., G. Caja, M. A. Rojas-Olivares and A. A. Salama (2010). "Readability of visual and electronic leg tags versus rumen boluses and electronic ear tags for the permanent identification of dairy goats." *J Dairy Sci* **93**(11): 5157-5166.

<sup>iii</sup> Ibid.