

Barriers to the adoption of animal welfare standards: shelter on pastoral farms

MW Fisher^{a*}, W Stockwell^b, A Hastings^b, JIE Brannigan^b, CE Lyons^a and P Timmer-Arends^a

^aMinistry for Primary Industries, PO Box 2526, Wellington, New Zealand; ^bNielsen, 150 Willis Street, Te Aro, Wellington 6011, New Zealand.

*Corresponding author: Email: Mark.Fisher@mpi.govt.nz

Abstract

The expectations for and provision of shelter for livestock remains a challenge. To help align expectations and recommendations, research was undertaken to determine the main barriers to the greater adoption of standards. Semi-structured qualitative interviews were undertaken with 24 New Zealand farmers and 22 animal-interest stakeholders. In addition, 700 members of the public were surveyed on-line. Shelter was seen as part of good farming, recognized in productivity and efficiency, and was part of the environmental and market demands. While some farmers considered that their shelter could be better, they had other, more pressing, priorities. The key barriers included costs, time and resources, impacts on productivity, the provision of information and a lack of enforcement. While the public acknowledged animal welfare as important, including providing livestock with shade, shelter and a comfortable resting place, fewer thought that, in this respect, animals were provided for particularly well. It will be necessary to acknowledge the complexity of the issue borne of different animals, environments and people; and that initiatives may be better managed as part of wider social expectations.

Keywords: livestock; shelter; animal welfare; farmers; public; expectations; barriers

Introduction

The provision of shelter for pastoral farmed animals has long been recommended, as well as acknowledged as a potential animal welfare issue. However, despite varied efforts (e.g., Pollard 2006; Fisher 2007; Beef and Lamb New Zealand 2017) it remains an example of what Dwyer et al. (2016) describe as “stubbornly unchanging” – like lamb mortality, the accumulation of knowledge does not appear to have had an impact on improving survival. In some circumstances, for example, the removal of shelter belts to facilitate irrigation creating a “naked landscape” (Rawlinson 2011), it has arguably worsened. While animal welfare is a value that farmers themselves attach according to their preferences, principles and circumstances (McInerney 2002), it is increasingly determined by the wider community and societal expectations. To help inform how the Ministry for Primary Industries (MPI) could better work to align expectations and recommendations for the provision of shelter, research was undertaken to determine expectations and the main barriers to the greater adoption of standards.

Materials and methods

The three components of the research were (1) semi-structured interviews with 24 farmers (6 dairy, 8 beef, 6 sheep, and 4 deer) from Northland, Waikato, Manawatu, Canterbury (coastal and high country), Otago (coastal) and Southland (sourced mainly from a specialist market research recruitment company’s independent panel but also through Nielsen networking, and screened for eligibility for interview to ensure that quotas were met for farm type and region); (2) semi-structured interviews with 22 individuals from 14 animal-interest stakeholder groups (3 farm industry, 3 corporate, 3 farmer representative organisations, 2 Māori agribusinesses, and 3 animal

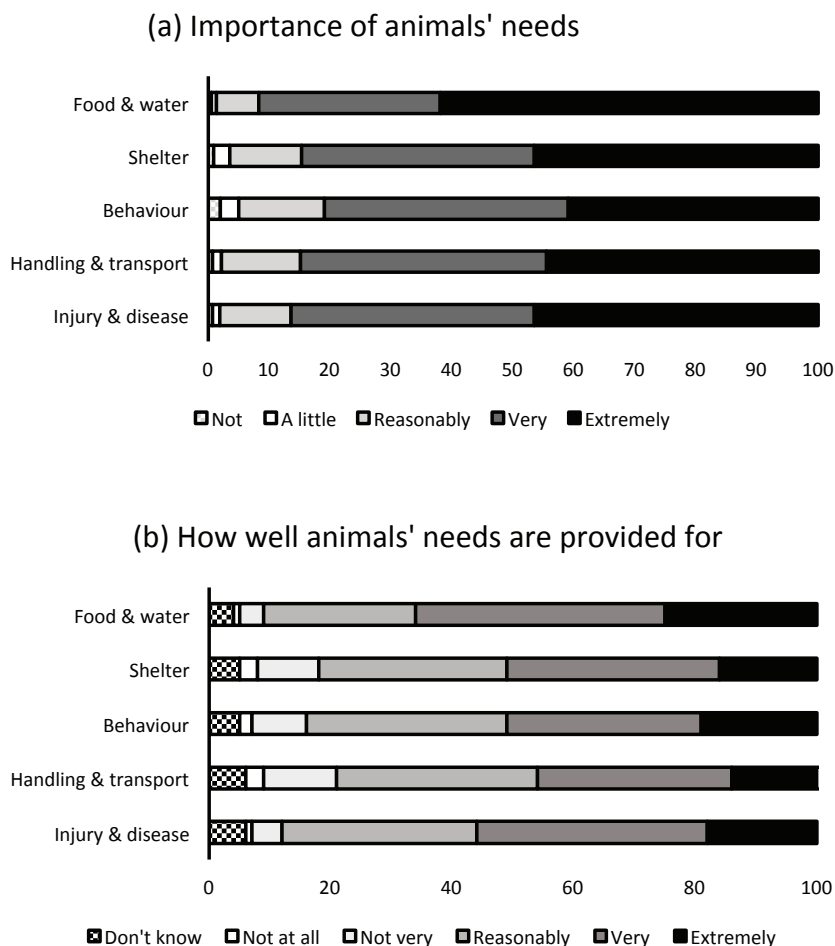
welfare compliance and advocacy groups (identified by MPI); and (3) a quantitative online survey of 700 members of the New Zealand public (sourced from Nielsen’s online panel provider, SSI). Questions were designed to establish and explore respondents’ perspectives of farm animal welfare and shelter, and expectations for, barriers against, and triggers and influences for action in relation to the provision of shelter (the complete list of questions is available in the full report: Nielsen 2019). For the purposes of this paper, the qualitative results, from farmers and stakeholders, have been combined. Respondents to the on-line public survey were asked to rank the importance of various statements as, for example, not important, only a little important, reasonably important, very important or extremely important (see Fig. 1) and, also for the purposes of this paper, generally only data from very important and extremely important are presented as a combined measure. Farmers and stakeholders were ‘warmed’ to the discussion with questions about themselves, their farms and the challenges they faced; public respondents were asked to rank animal welfare within the context of other social issues, e.g., family and domestic violence. The research was undertaken from April-August 2018 by Nielsen, with MPI input into the nature of the material (discussion guides and questionnaires) and organisational contacts. The results have been arranged into themes to provide a cogent understanding that would lend itself to determining how MPI, and its partners in pastoral animal welfare, could best approach the issue in future.

Results

What is on farmers’ minds?

Having financial stability was a key goal – running a profitable farm or making a living. It was highlighted that farming is a business to which productivity, animal health

Figure 1 The responses (%) of the public (n = 700) to two on-line survey questions relating to the welfare of animals (ensuring ongoing access to food and water; good shade, shelter and comfortable resting areas; a farm environment that allows natural behaviour; good physical handling on the farm and during transport; protection from, or treatment for sickness and injuries) that are farmed in open pasture or paddocks. (a) The importance of the different needs (based on the Five Freedoms) of animals to their welfare. (b) How well, based on what they had seen, read or heard, New Zealand farmers care for their pastoral animals in each of the different needs.



and welfare were fundamental. Other important aspects were the weather, stock and pasture management, farm maintenance and improvements, being able to farm better, and manage staff and farm succession. Debts, farming's reputation, compliance and regulations, market drivers, the *Mycoplasma bovis* response and NAIT (National Animal Identification and Tracing) were also of concern. Finally, there was the scrutiny "from people who aren't aware of what we do" – conversations driven by emotive opinions and perceptions, usually from the roadside and reinforced by social media, without an understanding of animals and the circumstances of farming practices.

Understandings of animal welfare

While farmers and stakeholders clearly linked animal welfare with productivity and profit, in other words in terms of survival, health and productivity, it was also explained in terms of what was natural for the animal. Having access to

shelter was a fundamental component of living in a natural environment, i.e., one to which the animals are suited. While acknowledging there were 'a few rotten eggs', most farmers had an affinity with the land and their animals, and were proud of their work. The impact of their activities was judged by the look of animals and their behaviour, and not overtly guided by science. While shelter was seen as part of animal welfare, it was not "stand-alone" but part of the wider farm and environmental management, finances and markets. Initiatives were not always undertaken purely for animal welfare (e.g., tree planting for control of erosion).

Similarly, while protecting animals from pain and distress was considered very or extremely important by 71% of the general public, so too were family and domestic violence (86%), protecting NZ from unwanted pests and diseases (79%), and getting people to be more physically active (59%). The welfare of pasture-farmed animals was rated as very or extremely important by 75%, as were zoo (79%), enclosed (78%), and companion (77%) animals. All the needs of animals (Figure 1a), the Five Freedoms, were rated very or extremely important, however fewer thought farmers cared for those needs (Figure 1b) very or extremely well, some alluding to media stories and to visits to rural areas for those less positive ratings.

Optimal shelter was difficult for farmers and stakeholders to define – "anything that allows the animal to get away from adverse weather" – but included hedgerows, trees, gullies, flaxes, vegetation clumps, tussocks, rocks, woolsheds, rushes etc. While it was considered best if shelter was available all or most of the time, giving animals the choice, respondents also held the view that needs can be managed with additional feed, paddock rotations etc. Examples of inadequate shelter were bare land and plains, especially those stripped of shelterbelts for irrigation, lack of shade in summer, animals without water, especially in the heat, or without shelter from wind and rain, and in mud without access to a dry, comfortable resting area. There were also different conceptions of discomfort, and although animals can cope in different environments, shelter was essential and the more severe the weather, the more it was regarded as crucial. It was also understood that animals might not always use shelter but still needed protection

Table 1 Examples of the responses individual farmers expressed as significant barriers to the provision of more shelter.

1. Financial resources needed to put shelter in place	
•	I mean, you know, this thing is a cost and you've got to stick with your constraints so it can lead to it being dropped down the list of priorities. (Sheep, Manawatu)
•	You know it's a lot of capital you're putting into a shed and muster up that sort of round that million dollars sort of mark when you're putting a shed in. Then likewise, if you're doing tree lanes and hedges and stuff there's upkeep of the hedges. You know, they get mowed and hedge cutting and all that kind of stuff. (Dairy, Otago Coastal)
2. Time and resources required to put animal shelter in place	
•	It can definitely be a barrier. I mean if shelter is done with a tree, it takes time and if it is done with a building it takes a lot of money. (Sheep, Manawatu)
•	It's the length of time it takes to grow shelter. Will they get a benefit from it in their lifetime? If they pay their mortgage off and have got 10 or 15 years left of farming, are they going to see any benefit then? (Sheep, Canterbury Coastal)
3. Farm productivity vs animal comfort, e.g., removing shelter belts to provide irrigation systems	
•	I think that's a major one, but I think that hopefully peer pressure will eventually solve, but it's very much like the factory farming approach and people want square paddocks and systematic systems, but stock still need shelter. (Sheep, Canterbury Coastal)
•	Yes. That is a big barrier. I can see why they have done it but the animals still need some shelter. The trees were planted in for a reason and then they were ripped out. (Beef, Otago Coastal)
4. Lack of knowledge about animal shelter initiatives being undertaken and their success	
•	It's probably something that doesn't get talked about much. If you bump into someone down the road or down at the pub or something your shelter is not something that you ever sort of talk about or compare. I guess there's probably room there for some research to be done. (Dairy, Canterbury Coastal)
•	I think there is a lot of information out there if you know where to look but people don't. Lincoln University has done a lot in terms of shelter belts. Tree nurseries talk about it. There's the internet if you want to go and look for it. (Beef, Otago Coastal)
5. Difficulties enforcing as prosecution requires evidence that animals are suffering	
•	They only get prosecutions if it is straight out animal neglect and where animals have died and that type of thing. (Sheep, Manawatu)
•	Yeah. It's got to come from the companies that the farmers supply. Like Fonterra is a classic example. I don't know why they dragged their feet for so long about fencing off waterways. Because if companies like Fonterra or Silver Fern Farms or Alliance don't take their meat or milk the farmer can't operate, can he. It's pretty simple. So that really enforces behaviour, well if they can't sell their meat, they can't make any money, can't sell their milk. (Deer, Manawatu)

through management activities, e.g., pre-lamb shearing. While some aspects of the cold can be addressed with feeding and shearing, heat was seen as a bigger issue with fewer known options (e.g., shade, access to water, changing milking times).

The requirements or necessity for providing additional shelter were shaped by factors such as the region, species, aspect, system, geography and topography, soil type, feeding (availability and quality), farm and stock management systems, time of year, age, herd or flock and individual animal requirements, natural behaviour, and the frequency of adverse weather events. Farmers and stakeholders recognised, then, that there was not a single solution – what works on one farm would not necessarily work on another. Furthermore, solutions potentially create other challenges, e.g., reduced grass production, increased mud, effluent and dirty waterways, changed wind flows, and a need to further intensify to pay for the 'improvements'.

What elicits the desire to provide shelter?

Generally, the provision of shelter was driven by economic/productivity benefits, environmental factors and the desire to be good farmer – a “combination of innate care for animals, financial considerations and professional pride.” However, and as well as being leaders and responding to peer pressure, according to one stakeholder

“a genuine market signal ... [would] see different types of behaviour.” Finally, the importance of public perception was acknowledged with exposés valuable in starting conversations.

Farmers (Table 1) and stakeholders considered the significant barriers to the provision of additional shelter were mainly resources (time, money, priorities, return on investment etc.); negative impacts on productivity (mainly related to shelterbelts and irrigators); and a lack of knowledge of shelter initiatives and their success. It was also considered that animal welfare standards were too general, difficult to enforce, and that there were no consequences for failing to meet them. An ‘enforcement’ role was also seen for others in the industry (if produce could not be sold then people could not farm profitably), while greater returns from products would allow for shelter to be afforded. Factors considered as possible barriers included the view that the shelter provided was good enough, needing to see proof of the benefits, and a lack of knowledge of what is important to the animal. Other pressures affecting the ability to provide additional shelter included increasing regulation, compliance and bureaucracy, biosecurity concerns, and having good staff, especially good stockmen. Respondents to the public survey thought the main barriers to the greater provision of shelter (major plus moderate in

Figure 2 The responses (%) of the public (n = 700) to an on-line survey question asking, based on what they had seen or heard, of the extent of the nominated barriers to farmers providing more shelter for their animals.

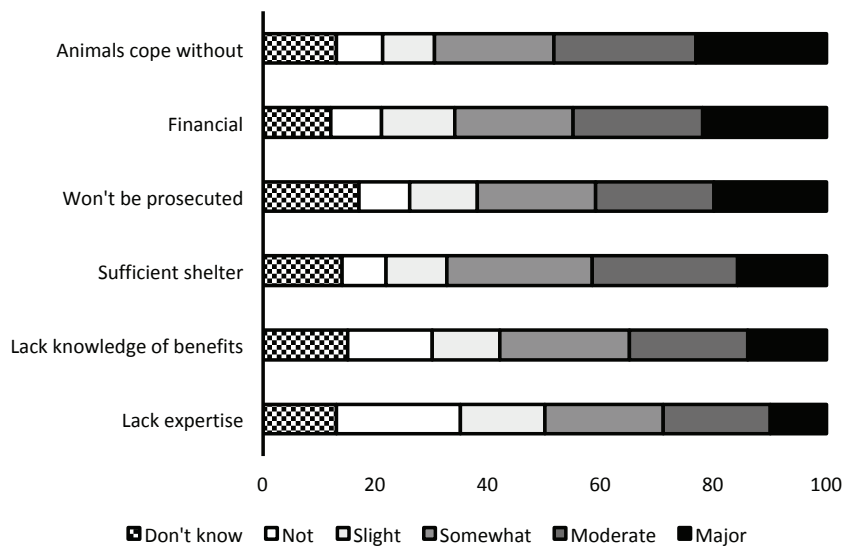


Fig. 2) were that farmers believed that animals could cope without shelter (48%), they lacked financial resources (46%), wouldn't be prosecuted (42%), animals had enough shelter (42%), farmers lacked understanding of the benefits (35%) or lacked the expertise to provide shelter (29%).

A complex social issue

While public perception was acknowledged as a key driver of animal welfare, especially the highly visible loss of shelterbelts and the images of cows in mud, arguably the poor behaviour of a minority of farmers, and fuelled by the popular and social media, was of concern to farmers and stakeholders. It was also evident in view of well-meaning but misguided complaints devoid of understanding or context leading to farmers being victimised. Examples included housing for dairy cows (applauded because it provides shelter and also vilified as the antithesis of natural and traditional farming and likely to impact on NZ's image). Farmers themselves were not immune to these tensions. Similarly, in a farmer's view "don't plant those dirty old pine trees" (they fall down and make a mess) but consider native and other exotic plants. Finally, the view that intensification, even if it has practices such as wintering sheds, good shelter, paddock rotations, and emerging low plantings, is the least-natural farming environment, in effect farming against the land rather than with it.

'Fixing' shelter

Solutions to the problem of different expectations and inadequate shelter were seen by farmers and stakeholders to be about respecting and caring for the land and animals and getting a balance between regulation/enforcement and incentive/encouragement. Everyone owns the issue and should try to avoid kicking farmers or farming when they are down – all need to be involved to get real change. It was noted that there is no enforcement but that there should be, the absence related to it being difficult, and that people were

unwilling to enforce, given the scale of the issue. Perhaps there is a need to challenge the culture of farming, utilizing international and consumer pressure, or even to consider how we debate it – the costs, practicalities, logistics, attitudes, behaviours, and belief in science.

Farmers and stakeholders considered it important that the farmer should be allowed to be the 'hero'. While some individuals will need to be directed or enforced, and followed through to ensure they comply, the focus was on a diverse approach encouraging, educating and engaging, understanding, and sharing success stories, reinforced by the threat of social licence, market assurance, public opinion, and common sense, so that farming takes ownership. This

may require having it 'on the agenda' all the time, so that shelter is talked about. Farmers trust 'people like them' and those working in their interests, rather than the authorities, so initiatives could support collaboration between friends, neighbours, discussion groups, industry leaders, farming publications and professionals, and in conjunction with other priorities (e.g., water quality).

In addressing shelter, farmers and stakeholders suggested that the different attitudes people have towards farming are acknowledged. Those who are sceptical of the value need proof, those seeking to maximise productivity and financial performance, and those motivated by contented livestock living a natural life in a natural environment and motivated by personal pride and success. Good animal husbandry was seen in having comfortable animals, whereas a lack of husbandry was reflected in stressed animals. A range of stances were noted, from abuse and neglect of livestock; to pampered, possibly indulged, and idealised husbandry envisioned. In implementing initiatives then, it might be beneficial to think of different farmer audiences: (1) those who have active plans might be better targeted by acknowledging and supporting their efforts, encouraging them to mentor others, sharing their successes, rewarding them (e.g., with carbon credits), and portraying them as a heroes; (2) those who have other priorities could be assisted with education, helping them to make small steps, and generally assisting them with planning, mentoring and support; and (3) the more-resistant individuals could be better approached by communicating why shelter matters and providing some easy options, highlighting the benefits and consequences of not addressing shelter, exposing them to peer and community pressure, and legal enforcement.

While the credibility of some of the functions of MPI was questioned, farmers and stakeholders considered MPI to have a role in understanding and informing, and providing explanations, tools and resources in collaborating

with partners. In effect, being the conscience for animal welfare, ‘standing above the parapet’ in being independent and neutral (without conflicting commercial interests), but also engaging the wider community in the reality of animal behaviour and shelter (mediating “between practical reality and public perception”). While MPI was also required to enforce requirements, it was questioned whether those standards were practical and achievable? Finally, there was a demand to demarcate MPI’s various roles – setting and enforcing standards, and advocating for higher standards, was confusing, as was the interaction between market and private approaches to animal welfare. The role of others, specifically the SPCA (Society for the Prevention of Cruelty to Animals) and SAFE (Safe Animals from Exploitation), brought some tension. While the SPCA’s role in animal welfare compliance was viewed positively, and advocacy group concerns were seen to have value in starting conversations and improving farming, there was also some anxiety. Sensationalist accounts demonizing farmers were seen to be contributing to an urban: rural divide without understanding the context or acknowledging that the majority care about and respect animals.

Discussion

Shelter for pastoral animals is, on the one hand, clearly complex. Animals succumbing to exposure, standing in mud or exposed to sweltering summer temperatures, raise concerns and expectations for shelter amongst farmers, farm industries, and the public alike. While the provision of shelter is part of good farming, there are different understandings of what is good, and different barriers or constraints, including finances, time and resources. On the other hand, there appear to be different understandings of what level of shelter is required, for example, that required for animal comfort, productivity or survival, and different expectations for animal husbandry. Furthermore, different groups of farmers, stakeholders and the public may need to be addressed in different ways, appealing to what is most likely to motivate them. Collectively, the two positions highlight both the expectations for shelter, and the difficulties in what can and cannot be enforced. One stakeholder’s comment – “a cow on a hot day, yeah she’s hot, we all get hot. Is that really a problem?” – particularly highlights the subjective and values-based complexity of the subject, the contested degree of compromise animals can be expected to endure. It, like animal welfare in general, is a ‘wicked problem’ (Rittel & Webber 1973) – difficult to describe, complex, changing and subject to inconsistencies and considerable debate. Wicked problems are not easily solved but, at best, managed and progressed with understanding and compassion. Identifying the issues, providing information and knowledge and involving people is key (Korthals 2008; Fisher 2010).

Farmers, like many others, are having to respond to a dynamic and complex world and any strategy to align expectations and recommendations with practices will have to appreciate or acknowledge the complexity of the

issue borne of different animals, environments and people – shelter is only one part of that whole. Conversations may be better managed as part of environmental management, market and social expectations. In addition to providing or facilitating opportunities, confidence and support for the provision of additional shelter, there may be opportunities to provide evidence of the initiatives being undertaken and their benefits. This would appear to be especially so for dealing with livestock exposed to high ambient temperatures. As one respondent noted, “you can eat to keep warm ... if it’s hot they’ve got to have shade.” Animals “in the blazing sun all day” are a highly visible issue, while there may be risks in focussing exclusively on current perceptions, livestock exposed to wind, adverse heat and solar radiation, and to excessive mud, probably stand out as needing to be addressed sooner rather than later. Finally, addressing the problem of industries being assessed or portrayed by their outliers, as well as identifying and working with those outliers, will continue to be critical. It is expected MPI will use these insights to progress shelter for pastoral animals as part of its *Safeguarding our Animals, Safeguarding our Future* programme, a collaboration with a range of stakeholders encouraging everyone to take responsibility for the welfare of animals (Anonymous 2018). It is suggested that society cannot merely tell farmers what to do any more than farmers can expect society to understand farmers’ ‘reality’. The future may lie not so much in emphasising productivity and profitability, but in understanding what animals are experiencing and in building better connections with people to produce more sustainable and equitable farming practices (Fisher 2018).

The approach taken in this study has been to use a mix of qualitative and quantitative insights to help inform a likely strategy. Although it has limitations, such as not knowing how much of a problem a lack of shelter is, an empirical question open to many of the difficulties noted above, and an inability to compare the values that farmers, stakeholders and the public hold, its value lies in acknowledging the breadth of issues and the diversity of interests. The next step is to develop a strategy which recognises and involves these important features.

Acknowledgements

The authors are indebted to the farmers, stakeholders and members of the public who contributed their time and invaluable insights – thank you. MPI’s Operational Research Team, especially Sue Escott-Brown, Andrew Pavitt and Claire McDonald are thanked for providing the opportunity to undertake this work. Jen Jamieson (MPI) is thanked for assisting with beginnings of the work, and the Society’s two anonymous reviewers and the Editor with its completion.

References

- Anonymous 2018. Safeguarding our Animals, Safeguarding our Reputation. <https://www.mpi.govt.nz/protection-and-response/animal-welfare/safeguarding-programme/> [accessed 7 February 2019]
- Beef and Lamb New Zealand 2017. Shelter. Maintaining the welfare and productivity of sheep and cattle on drystock farms. <https://beeflambnz.com/knowledge-hub/PDF/shelter-maintaining-welfare-and-productivity-sheep-and-cattle-drystock-farms> [accessed 30 January 2019]
- Dwyer CM, Conington J, Corbiere F, Holmøy IH, Muri K, Nowak R, Rooke J, Vipond J, Gautier J-M 2016. Invited review: Improving neonatal survival in small ruminants: science into practice. *Animal* 10: 449-459.
- Fisher MW 2007. Shelter and welfare of pastoral animals in New Zealand. *New Zealand Journal of Agricultural Research* 50: 347-359.
- Fisher M 2010. A method for considering the acceptability of novel biotechnologies for the control of brushtail possums. *Kotuitui: New Zealand Journal of Social Sciences* 5: 41-52.
- Fisher M 2018. Animal welfare science, husbandry and ethics. The evolving story of our relationship with farm animals. UK, Sheffield, 5M. 290 p.
- Korthals M 2008. Ethical rooms for maneuver and their prospects vis-à-vis the current ethical food policies in Europe. *Journal of Agricultural and Environmental Ethics* 21: 249-273.
- Pollard JC 2006. Shelter for lambing sheep in New Zealand: a review. *New Zealand Journal of Agricultural Research* 49: 395-404.
- McInerney JP 2002. Livestock Improvement Corporation Lecture: Animal welfare: ethics, economics and productivity. *Proceedings of the New Zealand Society of Animal Production* 62: 340-347.
- Nielsen 2019. Expectations of pastoral animal shelter among farmers, stakeholders and the general public. Ministry for Primary Industries, Wellington.
- Rawlinson PJ 2011. The influence of the black and white tide: dairy farming, landscape and community change. Master of Social Science thesis, Lincoln University. 154p.
- Rittel HWJ, Webber MM 1973. Dilemmas in a general theory of planning. *Policy Sciences* 4: 155-169.