

## REVIEWERS COMMENTS AND RESPONSES OF THE AUTHORS

*(Responses of author are written in blue italics)*

### COMMENTS TO THE AUTHORS

#### Editor/Chief Editor Landbauforschung

We will accept your manuscript incorporating minor revisions based on the comments of the reviewers. Both reviewers agree that your paper is an independent and interesting contribution to the debate around the drivers and power dynamics behind husbandry production systems. But please take into account the reviewers' recommendations; in particular, the possible organisation of interactions and the expected effects in practice (Reviewer # 1) are of additional interest.

Please follow strictly the instructions for authors. The revised version of your manuscript will be evaluated again by the Chief editor and, if necessary, by the reviewers.

**((Editor: Some comments of the two reviewers weren't mentioned in the responses of the authors – see here for completion))**

#### Reviewer # 1:

Short summary of the aim of the paper, its main findings and conclusions

The paper "Evolution in animal husbandry - fitting animals, fitting systems or fitting farmers? The power and limitations of animal farmers of fitting (into) animal production systems" address evolving gap between social acceptance of animal production and the animal production systems. The paper argues that inclusion of animal feelings and individual needs (for e.g. natural behaviors) in defining animal welfare create challenges in a 'modern' production system in where farmers need stable and reliable frameworks for developing their farm. Hence the role and agency of farmers needs a stronger attention in planning for sustainable animal husbandry.

General comments on strength and weaknesses of the paper and on possible improvements

The paper addresses a very relevant and urgent topic in contemporary consumer-food system debates. Animal welfare regulation has changed over the past decades, including more rights to animals in production systems. Nonetheless, the public debate seems to harshen towards farmers while stress is put on lowering prizes and costs. The apparently paradox for is problematic.

**((Editor: For all other general comments and detailed comments see below in the responses of authors.))**

An evaluation regarding the originality, scientific quality and significance and quality of presentation

The ambition and topic of the paper is great. I am unsure of the fit between topic and theoretical concepts used. Needs clarification of 'how'.

Recommendation

Recommend major revision.

#### Reviewer # 2:

Short summary of the aim of the paper, its main findings and conclusions

Very interesting and pertinent topic, which fits well with the specific issue of Landbauforschung. This is an original, interesting and timely contribution to the debate around the drivers and power dynamics behind husbandry production systems.

**((Editor: For all other general comments and detailed comments see below in the responses of authors.))**

Short check if title, highlights and abstract are matching the scope given for the specific issue of Land-  
bauforschung

Yes - great title

A comment on the English language and readability of the text

Very clearly written and easily readable to an English native speaker.

Recommendation

minor revisions needed

## **REVISION – RESPONSES OF AUTHORS**

Dear Editor in Chief,

we would like to thank you and the reviewers for your valuable comments and recommendations on our position paper “**Evolution in animal husbandry - fitting animals, fitting systems or fitting farmers? The role and agency of animal farmers of fitting (into) animal production systems**”. In this document, we elaborate how we incorporated your suggestions into our text.

### **Comments Reviewer 1:**

General comments on strength and weaknesses of the paper and on possible improvements

Author/s argue that framing gaps needs to be closed, dialog procedures and joint visions are needed among farmers, consumers and citizens (I would add all actors involved in the food system (and wonder what the difference between citizens and consumers is in this context)). While this is a constructive approach, I would like to see more reflection on how the interaction / change can evolve in mediating farmers’ roles and agencies and the values and culture of the society they produce for – and how it differs if it does.

*Thank you for this comment. We distinguish between consumers and citizens, because it addresses people through two different roles within society. As previous studies have shown, consumers and citizens show different behaviours, priorities and values when choosing products and making economic decisions.*

*Furthermore, citizens also refer to people within society that do not consume animal products, but that are, as members of society, influencing the culture and values of a society and therefore the context in which animal producers work. We therefore feel that it is adequate to make a distinction between consumers and citizens.*

Regarding the possible organisation of interactions and the expected effects in practice , we added the following sentences:

*In Germany and other European countries, farmers have started numerous initiative to initiate dialogue with the wider society using a range of online and offline communication tools. These include social media channels, Blogs, Live Web-Cams as well as organizing farm visits and initiating face-to-face dialogue with non-farming citizens (e.g. “Ask a Farmer” booths at public fairs). These initiatives help to close the gap between consumers and producers and opens doors for dialogue, discussions and the creation of joint visions. (I.91-95)*

A main concern is the use of productivism, (and even super-productivism) post-productivism, multifunctionality etc. as concepts for discussing potential good and bad animal welfare. If these are valid concepts for discussion, a stronger argument about what consumers oppose to and what these ‘regimes’ can offer to mitigate the opposition is needed. It might be possible to do that. As for now, I am not convinced that post-productivism and multifunctional agriculture provide better animal welfare as such.

*Answer: We use the production regimes 'productivism', 'super-productivism' and 'post productivism' to depict the evolution of animal production systems with regard to the dimension, quantity and quality of animal*

*production systems. It is important to note that we do not relate the different regimes to animal welfare directly, but to the role and agency of animal farmers in designing and managing their individual animal farm. We do not discuss whether smaller or larger production systems provide better animal welfare. Looking at the role and agency of animal farmers, the classifications productivism, super-productivism and post-productivism provide us with clear and descriptive categories to distinguish the intensity of the production systems. Furthermore, we argue that post-productivism leaves room for incorporating societal concerns such as welfare and environmental issues. Therefore, we believe that the mentioned production regimes serve as a creative and visionary basis for discussing the future of animal production systems and particularly the role and agency of animal farmers within it.*

Detailed comments referring to the line numbers, figures and tables

Line 21 and 22: Explain what ‘the traditional’ and ‘the modern’ entails. Why brackets?

*The brackets have been removed. An explanation what the traditional and modern entails can be found in the next line (L.23)*

Line 37: What do you mean by socio-cultural sustainable transition (as opposed to – or ...?)

*This comment refers to the transition towards socially acceptable animal production systems. Speaking of sustainability as a holistic concept, the socio-cultural transition is complemented by economical and ecological sustainability. For better understanding, we changed the sentence as follows: We therefore argue that the role and agency of animal farmers need to be placed at the centre of attention when aiming at a sustainable transition towards a socio-cultural acceptable animal husbandry. (l. 35-37)*

Line 46: Jürgens. Not in the reference list *Thank you. The reference has been added.*

Line 49-55 Case not well elaborated – what is the takeaway message?

*This example serves to illustrate how animal farmers do not support the specific condition (e.g. the role of bobby calves) of intensive animal production systems. For a better understanding, the example was changed as follows:*

*An extreme, but not hypothetical case of an ethical conflict for animal farmers are bobby calves and their economically (almost) useless life in intensive dairy production. In a study analysing online comments, it was shown that dairy farmers oppose to the role and handling of male dairy calves, despite facing the entrepreneurial challenge (Wellbrock and Knierim, 2019).*

The following sentence was removed:

*Moreover, a gender gap in dealing with such ethical conflicts was observed which showed that while male farmers focus on objective topics such as weight and price, female farmers focus on subjective topics such as feelings and morals.(l.52-56)*

Line 61-62 Why include landscapes – see also comment above. Make sure that it makes sense to use these regimes as discussants in this paper.

*Thank you for this comment. We discussed our motivation to use the different landscapes and their associated regimes as a response to the comment above.*

Line 81 social lab – which is?

*A reference was added to illustrate the origin of this reference: Social Lab Konsortium (2019) (l.79)*

Line 90 Spelling: to develop – not development *Thank you. The spelling has been changed.*

Line 94 animal production systems *Thank you, the spelling has been changed.*

Line 97 the missing (in the social) *Thank you, “the” has been added.*

Line 97-98 I assume the values and cultures of society (not the values of the society and culture they produce for) ? *Thank you! The sentence has been changed as follows:*

*In practice, sustainable animal production systems are developed by and with farmers and thus, must reflect farmers' roles and agencies as perceived by them and enacted in the social contexts they are situated in, reflecting the values and culture of the society they produce for. (l.98-101).*

### **Comments reviewer 2:**

#### **General comments on strength and weaknesses of the paper and on possible improvements**

In the rural development section could the authors consider how local food production could be linked to regional food needs i.e. population, socio-economics, dietary trends, optimization of land.

*Thank you for this comment. In our position paper, we describe how animal production needs to be anchored better into rural regions, focusing on education, cooperation and market integration. We feel that with this description, we address how animal production could be locally anchored:*

*What is needed is research into how to anchor animal production sites regionally, to adapt husbandry conditions to the landscape and to link them with other economic sectors such as tourism and services. Focusing on the education, cooperation and market integration of peasant, small-scale and multifunctional farmers may in the long-term create more socio-culturally sustainable animal farming systems than investing in large-scale, multinational and highly industrial agglomerates. (l.70-75)*

In the changing societal trends section it would be great to discuss tools to use i.e. participatory approaches to co-creation of farming visions between farmers and citizens.

*Thank you for this comment. For our answer, please see our answer the comment of reviewer 1:#*

*In Germany and other European countries, farmers have started numerous initiative to initiate dialogue with the wider society using a range of online and offline communication tools. These include social media channels, Blogs, Live Web-Cams as well as organizing farm visits and initiating face-to-face dialogue with non-farming citizens (e.g. "Ask a Farmer" booths at public fairs). These initiatives help to close the gap between consumers and producers and opens doors for dialogue, discussions and the creation of joint visions. (l.91-95)*

In the changing societal values section I think it would be relevant to refer to the debate on reducing meat based protein production from intensive to sustainable production systems, climate change mitigation and the rise of plant based protein sources.

*Thank you for your comment. The following sentence has been added:*

*At the same time, citizens become more concerned about health issues related to the consumption of animal products and the environmental effects animal production entails for the environment and climate (l.83-85)*

#### **Detailed comments referring to the line numbers, figures and tables**

Line 55 'Individual farmers everywhere try to develop and implement strategies for sustainable animal husbandry - i.e. in harmony with animal welfare and their own ethical understanding (e.g. suckler-cow herds, double purpose breeds).' Do the authors have evidence to support this statement? I would say **some** individual farmers everywhere try to develop and implement strategies for sustainable husbandry.

*Thank you for this comment. The addition 'some' has been added. (l.52)*

#### **Short check if all conclusions are justified and supported by the results**

Line 95 'In practice, sustainable animal production systems are developed by and with farmers and thus, must reflect farmers' roles and agencies as perceived by them and enacted in social contexts they are situated in, reflecting the values of the society and culture they produce for.' – The conclusion would benefits from a recommendation on how this may be achieved (see previous comment on changing societal trends section). One example being the transition to sustainable husbandry systems can be facilitated by government policy which supports multi actor but **farmer led** innovation.

*Thank you! We agree with your suggestion and added the sentence: The transition to sustainable husbandry systems may thus be facilitated by government policy which supports farmer led innovation of animal production systems. (l. 101-103)*

**FINAL ACCEPT**

**Editor/Chief-Editor Landbauforschung**

Landbauforschung, rev. Version: Accept

We are pleased to inform you that **we've accepted your revised manuscript “Position Paper: Evolution in animal husbandry – fitting animals, fitting systems or fitting farmers? The role and agency of animal farmers of fitting (into) animal production systems”**, which you submitted to Landbauforschung – *Journal of Sustainable and Organic Agricultural Systems*. We and Reviewer #1 are pleased with the corrections made. Unfortunately, Reviewer #2 is on a longer sick leave.