

A photograph of a brown and white cow in a field. The cow is the central focus, with its body and head visible. It has a white patch on its back with a circular white mark. The background is a lush green field with dandelions and trees. The text is overlaid on the image.

COUNCIL ON ANIMAL AFFAIRS

ANIMAL PROCEDURES FOR THE  
LIVESTOCK SECTOR: THE IMPORTANCE OF  
ANIMAL WELFARE, SUSTAINABILITY  
AND A RESEARCH CHAIN APPROACH

SUMMARY

## The purpose and activities of the Council

The Council on Animal Affairs (*Raad voor Dierenaangelegenheden*, RDA) is an independent council of experts, which advises the Minister of Agriculture, Nature and Food Quality of the Netherlands. This advice is submitted on request and by the Council's own initiative regarding complex, multidisciplinary issues relating to animal health and welfare. The RDA currently comprises some forty experts with a wide range of backgrounds and expertise, who serve on the Council in a personal capacity, independently and without any outside influence.

The Council on Animal Affairs considers issues across the entire spectrum of animal policy: on captive ("domesticated") and non-captive ("wild") animals, smallholding, or hobby farm animals, companion animals (pets), commercially raised animals and laboratory animals.

The Council records the conclusions of its deliberations in opinions. These documents provide an overview of the scientific and societal background to various issues, and include recommendations on policy options and avenues for resolving potential problems. Consensus is not a requirement for the inclusion of opinions; an opinion may contain views held by a minority of Council members.

## Foreword

Animal procedures play an important role in the pursuit of efficient and high-quality food production. These procedures carried out in the course of research for the livestock sector ultimately have an impact as well on the health and welfare of the animals kept. At the same time, the Netherlands aims to reduce the number of animal procedures carried out and eventually cease carrying them out, including for the livestock sector. Research using animal procedures can nonetheless advance and help to accelerate the process aimed at making livestock farming more sustainable, with animal welfare at the forefront.

This situation presents the Central Authority for Scientific Procedures on Animals (*Centrale Commissie Dierproeven*, CCD), the only authority in The Netherlands authorised to issue licences for animal procedures, with a range of ethical dilemmas. Such dilemmas prompted the CCD to put a number of questions to the then Dutch Minister of Agriculture, hoping that the answers might help it in its assessments of sustainability and animal procedures for the livestock sector. The Council on

Animal Affairs (*Raad voor Dierenaangelegenheden*, RDA) considered the questions and set out the results of its considerations in an advisory report, an abridged version of which is provided in this publication. The complete report is available for download on the RDA website: [www.rda.nl](http://www.rda.nl).

The Hague, October 2018



Jan Staman, Chair



Marc Schakenraad, General Secretary

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RAAD VOOR DIERENAANGELEGENHEDEN

# Animal procedures for the livestock sector

## Requested advice

**Question:** What role should animal procedures play in the development of livestock farming and is there a role for animal procedures in the move towards sustainability in this sector?

**Background:** “The initiative behind this advisory report comes from the Central Authority for Scientific Procedures on Animals,” says Franck Meijboom. He is an associate professor at the Faculty of Veterinary Medicine and the Faculty of Humanities at Utrecht University who used to chair the forum that prepared the advisory report. As he explains, one of the tasks of the CCD committee is to issue licences for laboratory animal research: “After its inception in 2014, the CCD has examined and approved all kinds of research focusing on livestock farming, which has left it wondering whether these procedures are really contributing to sustainability improvements and the associated animal welfare. This matter is not for the CCD to judge, however; all that it can do is approve or reject a proposal. To this end, it asked for clarity from the then Dutch Minister of Agriculture, who in turn sought the opinion of the RDA.”

**Considerations:** In essence, there are two debates going on here, says Meijboom: “The first question has to do with our approach to animal procedures in the Netherlands, also given our pursuit of animal-free innovations, an area in which the Netherlands aims to become a top player.

The second question is how to make our livestock farming sustainable, which is where the two debates converge. Calls for animal procedures to be abandoned entirely feature frequently in debates on the subject. There are others who say that this measure is not necessary or desirable because it would impede innovation. These considerations have led to the current motto ‘No, unless’. However, considerations other than animal welfare also play a part in the debate on making livestock farming more sustainable. Examples include the question as to whether the Netherlands should continue to produce goods for the world market, the pursuit of a smaller CO<sub>2</sub> footprint or the health of local residents. In other words, major social themes are at play in animal research, which is also reflected in the assessments made by the Central Authority for Scientific Procedures on Animals. Perhaps, then, the aim should not be to bring about a complete halt but rather to ensure that animal welfare occupies a more central position.”

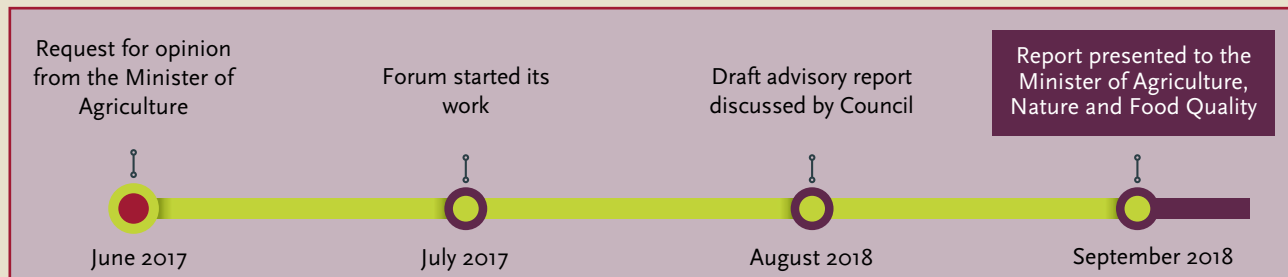
**Opinion:** The opinion provided to the CCD is to involve the research chain more actively in its assessments, without it detracting in any way from its central role as issuer of licences. Financial backers, research institutes, implementing agencies and the farming community can play their part in helping to develop alternative livestock farming systems and alternatives to animal research.



Forum chair Franck Meijboom.

The Minister has been advised to put animal welfare at the forefront and encourage others to do so as well; the health and welfare of the target species, i.e. the species for which a procedure is or is not carried out, must benefit in a sustainable way from a procedure. “You must avoid simply treating the symptoms”, says Meijboom. “The CCD should put related questions to its partners in the chain as well: make sure that this issue is included on the application form for an animal procedure so they are obliged to give it thought. This approach will also make it easier for the CCD to conduct a transparent assessment. Furthermore, it will result in broader support for the joint task of partners in the chain to aim for sustainability and improved animal welfare in the longer term.”

Finally, an animal procedure must always be assessed on the basis of its contribution to the 3R’s (Replacement, Reduction and Refinement), which are legally binding for animal procedures in our country. Where procedures for sustainable livestock farming are involved, however (as opposed to laboratory testing for human medicine), this requirement should also be considered in the perspective of the other sustainability objectives. Meijboom: “For this debate, you need the partners in the chain to be involved.”



# Brief summary of the report

## 1 Introduction

The Central Authority for Scientific Procedures on Animals (*Centrale Commissie Dierproeven*, CCD) regularly experiences dilemmas when assessing animal procedures for the livestock sector as well as the relationship between these procedures and the pursuit of a sustainable sector. Such dilemmas prompted the then Dutch Minister of Agriculture to put a number of questions to the Council on Animal Affairs (*Raad voor Dierenaangelegenheden*, RDA). At the request of the Minister, the Council on Animal Affairs elaborated the questions in an advisory report:

1. What can be done to ensure that animal experiments aimed at intensive livestock farming contributes to improving the health of humans and animals, without placing an even greater burden on the animal in the longer run?
2. How can we make sure that the consideration of more fundamental changes in the farming system becomes embedded in the design of research into the problems that result from livestock farming?
3. Are there any areas or themes where the improvement of farming conditions should be given priority to ensure the welfare and health of production animals?
4. In which circumstances are animal procedures justified where a solution could also be found in alternatives involving provision of different housing, particularly when moderate or severe distress is involved?
5. What is the target situation with regard to animal-free innovations?

Two policy themes converge in the questions put: (1) the notion how laboratory animals could contribute to the transition towards sustainable livestock farming and (2) the notion how this situation could be achieved with responsible use of animal procedures. Research using animals is often required for innovation in livestock farming; for example, to measure effects on animal welfare or the environment. At the same time, the Netherlands aims to become the front runner in animal-free research. Those two themes converge when the CCD, the only agency in the Netherlands with the authority to issue licences for animal procedures, has to deal with them. Licences can only be granted to scientifically and ethically responsible procedures for which there are no alternatives. Such alternatives have to do with the 3R's: Reduction, Replacement and Refinement. The CCD often faces ethical questions when assessing an animal procedure for the livestock sector: will it stretch the animal's production capacity too far and is it overly focused on treating symptoms?

In addition to the aforementioned two themes, the Council also took account of three other relevant developments and tensions when answering the Minister's questions. First (3), there is tension between the pursuit of improved welfare for animals (including animals in scientific procedures) on the one hand and the other objectives of sustainable livestock farming (such as public health or the environment) on the other. These considerations must always be weighed against each other. Second, there are also (4) some differences between the statutory rules for handling animals who are used for scientific procedures



The effect that the type of feed has on reducing leg disorders in broilers is studied in the Wageningen University & Research Carus research barn.

and ones used in livestock farming. As a result, the lines between practice and procedure are sometimes blurred. Finally (5), the international competition must have a place in the considerations. Since the Netherlands is a front runner in knowledge development for livestock farming, the basis for approving or rejecting the animal procedures

required to this end could have a bearing on that position. In sum, there are five questions that need to be answered amid a number of tensions. To answer them properly, the Council conducted a series of interviews with stakeholders and also had several meetings with the Council members involved.

## 2 The debate in context

Farm animal procedures in themselves are no different from those performed on other laboratory animals. Legislation that applies to laboratory animals such as rats and mice also applies to cattle or pigs used in animal procedures. The debate does not revolve around the animal species but rather the ultimate purpose of the research, i.e. contributing to the development of livestock farming. That purpose gives rise to complex questions when assessing and weighing the legitimacy of animal procedures. The first question involves striking a balance between the pursuit of animal-free research on the one hand and the claim that many experiments conducted for the livestock sector will actually benefit the health as well as the welfare of other animals in future on the other. Research using animals is often considered necessary to find ways of improving animal health and animal welfare. The second question has to do with research using animals which has no impact whatsoever on existing welfare problems, or which is geared towards treating symptoms without addressing underlying issues or system innovation.

Answering those questions is a complex matter, as the interviews and the meetings held show that view is shared by the CCD and the Animal Ethics Committees (*Dierexperimentencommissies*, DEC). As a result, animal procedures for the livestock sector require a clearer vision on our treatment of farm animals in scientific experiments. As well as the developments in livestock farming, the required approach should take account of four other factors:

1. Alternatives and animal-free innovations. The Council on Animal Affairs (RDA) observes that there are



Photo: Nationale Beeldbank

Research into ways of providing diversion for farmed pigs: welfare research or symptom-treating which is hampering the introduction of more animal-friendly housing?

- many developments in this area which could also be relevant to research for the livestock sector;
2. The international context of the research. On this point, the Council believes it to be important that we take the lead or maintain our leading position in terms of developments pertaining to innovations in livestock farming and animal procedures, while at the same time ensuring that we do not lose our connection with the international playing field;
3. The research chain's responsibility. Developing sustainable livestock farming, as well as developing and using alternatives to animal procedures, requires a research-chain approach. Both objectives necessitate active contribution and support by the entire research chain, from funding and initiating research to operationalising and implementing it. Such cooperation between every partner in the chain must be translated into research that not only makes optimum use of existing knowledge and experience but also aligns with the CCD's frameworks;
4. The tension between target situations and reality. The Council realises that the choices which the CCD



has to make are often far from simple. However, it is important to make those trade-offs explicit at an earlier stage of the agenda-setting for and development process of the research, rather than just set them aside until the point when the CCD has to decide whether or not to issue a licence. The objective is aiming to optimise the interests of all those involved and to put the target animals at the forefront in the process. Ensuring that all the partners in the research chain are actively involved could encourage them to look for alternatives and innovations that are also in the best interests of the target animals from the very beginning of the planning process for an animal procedure. It continues to be important that the CCD maintains responsibility for making an independent assessment.

### 3 Building blocks for a line of reasoning

As it turns out, animal procedures for the livestock sector require careful consideration by all those involved, since there will be no simple solution to the questions raised in many cases. It nevertheless seems possible to guide the debate while doing justice to the diversity of interests and visions. Proceeding on the basis of the current ‘No, unless’ principle, the Council finds that animal procedures:

1. must contribute directly to the interests of the target animals themselves in the form of improved animal health and animal welfare;
2. must contribute as far as possible to achieving an optimum balance between the objectives of sustainable livestock farming;
3. must contribute actively to animal-free innovations and the 3R’s (Replacement, Reduction and Refinement).

At the same time, the Council recognises that it takes time to develop and disseminate sustainable innovations. Given the major impact on many animals, the need to allow procedures aimed at improving welfare and health in the current intensive factory farming system remains. Furthermore, animal procedures for the livestock sector often imply procedures involving the target species. To this end, the Council believes that while reducing the number of animal procedures (through the 3R’s in particular) is a guiding principle, research on the target animal could nonetheless be important as a means of improving the welfare of the target species and developing sustainable livestock farming.

For all these reasons, an integrated approach is required. The CCD will consequently incorporate the above line of reasoning into the request form and adopt it as the starting point in its assessments. It is important that the partners in the chain are also actively involved in livestock farming research and encouraged to put into effect improved animal welfare, innovations for more sustainable livestock farming and innovative implementation of the 3R’s during the agenda-setting and implementation process of the research. This development will not only lend a greater degree of transparency to assessments but also provide researchers, partners and society with insight into them.

### 4 Recommendations

In light of the foregoing, the RDA recommends the following:

1. In the application form for livestock farming projects, the CCD should include an explicit question asking the applicant to demonstrate the extent of the project’s contribution to sustainability in livestock far-

ming and to explain how the knowledge acquired can be used to improve animal welfare in future systems. This information must be included in the assessment, and may help ensure that the research is not limited to treating symptoms but also focuses actively on the underlying issues and system innovation.

2. In its assessments, the CCD should involve partners from the research chain and expert bodies on sustainable livestock farming with a view to (1) activating the debate about targets and best practices for reducing the use of research animals and promoting sustainability in livestock farming, (2) creating support, and (3) making agreements on the direction and implementation of research aimed at promoting sustainability in livestock farming.
3. The CCD should assist in making the 3R's more specific. It is especially important for research into existing systems to insist on alternatives so as to encourage innovation for both animal procedures and the system used in practice. This could be achieved by demanding this explicitly in applications. In addition to the aforementioned consultation with partners in the research chain and experts in the areas of the 3R's

and sustainable livestock farming, the NCad's external contribution will be important in this context.

4. The Minister should promote the development of a clearer vision on the relationship between animal welfare and other sustainability objectives in livestock farming, by facilitating the debate on an overall vision in animal sectors where development has already begun, and initiating it where necessary. Such a vision could form the basis for a document that would offer the CCD further guidance when making its assessments.
5. The Minister should actively encourage the entire research chain for livestock farming to consider animal-free innovations. One way of achieving this would be to request more information throughout the process, from funding and initiating research to submitting an application to the CCD.
6. The entire research chain should take responsibility for developing and applying alternatives; for example, by monitoring the development of alternatives, investing in development and openly exchanging innovations. It is also important to maintain contact with the international playing field, for instance by seeking cooperation with other forward-thinking international partners.
7. The entire research chain should account in a transparent way for the contribution that it has made to a more animal-friendly and sustainable livestock farming system. This should not only be reflected in annual reports but also in the process of setting research agendas (as part of the Top Sector policy, for example, and the agendas of the Netherlands Organisation for Scientific Research (NWO) and private parties), research design and project applications for animal procedures. The CCD could ask explicit questions about this in the assessment of applications and include the information in the assessment.

Photo: Guy Ackermans



A cow's rumen contents can be examined with the aid of an opening (fistula).

# Appendix

This advisory report is a product of the full Council on Animal Affairs (RDA). It was prepared by a working group composed of RDA members dr. F.L.B. Meijboom (chair), W.T.A.A.G.M. van den Bergh, A.L. ten Have-Mellema, ir. M. de Jong-Timmerman, prof. dr. ir. B. Kemp and prof. dr. Y.H. Schukken. The forum has been assisted by deputy secretaries drs. M.J.R.C. Debille and dr. B.B. Houx, and by secretary ir. M.H.W. Schakenraad of the Council.

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