Teaching of Bioethics in Agriculture and Veterinary Schools in Spain
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1. Background
Animal welfare has not traditionally been a widespread concern in Spain. However, there are some facts that, although difficult to assess objectively, seem to indicate that this situation is changing rapidly in the last few years:

- Cases of mistreatment or neglect of animals are reported with increasing frequency in the media. Further, several public TV channels have recently devoted full programs to animal welfare issues.

- Animal rights groups are increasingly influential. Although it is unlikely that they represent the general opinion of the population, they are strong and vocal enough to have an effect on the policies of the local and regional governments.

- Several professional organisations regard animal welfare as something that cannot be dismissed any more. For example, ANAPORC –the Spanish Association of Pig Veterinarians- has devoted full sessions or plenary lectures to animal welfare in its annual conference over the last few years. ANPROGAPORC –the Spanish Association of Pig Producers- is currently organising a course on animal welfare.

- A few years ago, the Spanish Government included animal welfare in the list of priority areas for research. Research proposals that fall into a priority area are more likely to be funded than those that do not.

There are several reasons that may explain this change. First, although Spain is still below the European Union (EU) average, its standard of living has markedly increased in the last years. Alongside with this, the proportion of people working in agriculture has steadily decreased over the last decades. It has been suggested that concern over the welfare of animals is more pronounced in rich, urban societies. Second, the fact that Spain joined the EU has had a large effect on animal welfare, mainly because Spain has incorporated the EU directives on animal welfare into its own legislation. This has prompted changes in livestock production systems and –perhaps more importantly- has stimulated discussion and interest over animal welfare issues.

Changes in legislation, however, have not followed the changes in public opinion towards animal welfare. In fact, apart from the incorporation of EU directives into Spanish legislation, laws on animal welfare are scarce and show a large variability across Spain. This is due to the fact that animal welfare issues are not addressed by the Spanish Government, but by the regional governments, called "Gobiernos Autonómicos" in Spain.

2. Teaching of Animal Welfare

2.1. The facts
The teaching of animal welfare in Spain is in its infancy and its major traits can be summarised as follows:

Undergraduate teaching
Undergraduate courses on animal welfare are taught almost only in Vet Schools, probably due to the EU guidelines on veterinary education. However, out of 10 Vet Schools, only 5 have reported to include animal welfare issues in their curricula. No Higher School of Agriculture reported to teach
animal welfare. The amount of time devoted to animal welfare in those Vet Schools that cover it at all is rather variable, but the average is extremely low. Only two Vet Schools have an entire subject devoted to animal welfare or related disciplines, such as applied animal behaviour.

Animal welfare is often taught in the first and second years, when students have not acquired yet a proper understanding of animal production systems. When animal welfare is taught in the first year, the students have not taken a physiology course yet and therefore their understanding of important topic related to welfare such as stress physiology is likely to be poor.

Lectures on animal welfare focus largely on farm animals and this may be related to the fact that lecturers in animal welfare belong in many cases to Animal Science departments. Most teaching is based on theoretical lectures, with few practical sessions and discussion cases.

Postgraduate teaching
Four universities have reported to include animal welfare in their postgraduate programs. In most cases, this is limited to one course that is included in one or several PhD programs. Besides, there is an MSc course on laboratory animal welfare. There is no PhD program entirely or largely devoted to animal welfare or related disciplines, such as applied animal behaviour.

2.2. The reasons behind the facts
There are several reasons that may explain the above situation. Animal welfare is a very young discipline in Spain and there are very few faculty members doing research on animal welfare or with formal academic training in it. The fact that there are very few postgraduate courses on animal welfare in Spain makes the situation difficult to change. A second problem is that there is the general impression that the overall number of theoretical lectures given to vet students is already too high, and therefore including a new subject is fraught with difficulties. This could theoretically be overcome by using practical session to teach animal welfare. This, however, is difficult because the ratio students/faculty is very high: 11.6 in Spanish Vet Schools compared, for example, with 5.75 in British Vet Schools or 8.77 in the EU as a whole. Finally, the introduction of a new subject in the curriculum has to be approved by the Government and as a result many Vet Schools will not include animal welfare until a more substantial change in their curricula is made.

2.3. Future directions and suggested actions
Training of faculty members is an obvious priority. Therefore, setting up a postgraduate course in animal welfare could be useful. The course should cover not only farm animal welfare issues, but also the more fundamentals aspects of animal welfare as well as welfare issues related to companion and wild animals. As there is a full MSc course on laboratory animal welfare, this would not need to be included.

Setting up links between Spanish and other European institutions is also important. It is interesting to notice that no links with EU institutions were reported in the survey, whereas almost all respondents accepted to be included in a European network on animal welfare teaching.