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Evaluation of Education of Veterinarians in Animal Welfare Issues

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Abstract: Education of veterinarians in animal welfare issues is important to improve the welfare and health of animals. A questionnaire to 250 veterinarians related to their knowledge on animal welfare issues has been carried out at the Veterinary School of the University of the Republic, Uruguay, during March-April 2012. The questions were related to the courses on animal welfare veterinarians received, their main field of work, the importance given to the information offered and the quality of the topics addressed. From the total of veterinarians surveyed, 45% (112) answered the questionnaire. Of those who responded, 47% attended to three or more animal welfare courses, 18% assisted to two courses and 22% to one. The occupation of the 82% of respondents was with beef and dairy cattle (large animals) or in the meat industry equally. 10% works with small animals (especially pets) and poultry (production and industry). The 95% of respondents considered that animal welfare is very important for their daily work with animals. 65% reported that animal welfare concepts have high applicability in their job. 85% considered that animal welfare should be part of the veterinary curricula and 100% expressed their compliance to be present in other courses on the subject. These results emphasize the importance afforded by Uruguayan veterinarians to improve their knowledge on animal welfare and to continue including specific courses in the veterinary curricula.

Key words: Animal welfare, veterinarians, veterinary curricula, continuing education.

1. Introduction

The animal welfare is a complex multi-faceted issue including scientific, economic, religious, ethical and cultural dimensions, as recognized by the World Organization for Animal Health (OIE) as a priority in the 2001-2005 strategic plan and continued in subsequent plans up to now [1].

The Food and Agriculture Organization (FAO) recognizes that the welfare of humans and the welfare of animals are closely linked, and states that animal welfare practices lead to benefits for both people and their animals [2].

Thus, animal welfare is becoming ever more important in the world, not only by the requirements of consumers [3] but also by the increasing awareness perceived by all the actors of the animal products

supply chains and the government in general.

Americas, a large and diverse continent, is designed to be the world supplier of animal food products due to its production and export volume [4]. This implies that a large number of animals are growing in different production systems, are transported by different ways and are slaughtered to produce meat, all of which involve a large number of stakeholders such as producers, stockpersons, truck drivers, industry employees, practitioners, etc., working in many cases without adequate knowledge to move animals [5, 6].

However, in Latin American countries, a large variation is perceived in breeding conditions, transport and slaughter of farm animals, perhaps due to a combination of geographic, climatic and cultural characteristics of each country. It may be also due to the different animal species used for meat (cattle, horses, sheep, pigs, goats, camels, rabbits, guinea pigs,

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fish, etc.), as well as each particular production systems and market characteristics [7].

An improper handling of animals prior to slaughter, such as very long journeys of transport and too many animals per vehicle [8-10], can cause injuries and suffering in the animals, resulting in bruise at the carcasses and thus great economic losses due to condemnations of the final product [11-13].

In this sequence, the role of the veterinarian is crucial in spreading knowledge, increasing awareness, training all the chain's actors and thus contributing to obtain a high quality final product that meets the health and animal welfare of international requirements [14].

Several initiatives in this direction have been carried out in Latin America, including research, training and legislation with encouraging results that trained staff in the implementation of best management practices (BMP) before slaughter reduces the incidence of bruising in cattle and pigs [15, 16].

In the last years, in many Latin American countries, the awareness of animal welfare has been increasing among the stakeholders involved in the animal food products chain, such as producers, farmers, stockpersons, markets and slaughter houses, practitioners and truck drivers. The BMP information has been transmitted through courses and seminars [15, 17].

All the stakeholders play an important role in changing perceptions of animal welfare by increasing public awareness and promoting communication and cooperation [18].

In Uruguay, studies conducted by the Veterinary Faculty of University of the Republic, showed that the most devices to force cattle to move were sticks, electric prods and poorly trained dogs at 62%, 21% and 32%, respectively, all of which could cause injury to the animals [19].

Other studies also showed associations among different factors affecting the animals at pre-slaughter

stages, such as the distance from the farms to slaughter plants, the state of routes travelled, sharp devices used to move the animals and the consequent presence of bruises at the carcasses [11].

There is no data in the country or in the region about the information on animal welfare received by the veterinarians. The main objective of this work was to collect information about the perception of practitioners on training programs and their willingness to continue receiving information and training on animal welfare.

2. Materials and Methods

A brief questionnaire was sent by email to 250 veterinarians, whose data were in the database of the Veterinary Faculty of the University of the Republic of Uruguay, at the Continuing Education Program which has been taken as a course related to animal welfare issues. The details of questions are shown in Table 1.

Descriptive analysis of the data was performed with a statistical package Intercooled Stata 11.2 (2009) in order to obtain the frequencies of each variable considered [20].

3. Results and Discussion

The survey was carried out during February-March 2012. From 250 veterinarians surveyed, 112 (45%) answered the questionnaire. Fig. 1 shows that almost half of the veterinarians attended to more than three animal welfare courses in the last time in the country. Fig. 2 shows an interesting breaking point since 2010 with an increasing tendency of animal welfare courses attended by the veterinarians along the last years. These actions may be due to the setting up of the OIE collaborating centre on animal welfare in May of 2009 [21].

The 82% of respondents worked with large animals (mainly beef cattle) and in meat industry equally. This characteristic is typical in Uruguay, a small South American country, with approximately 3 million people

Table 1 Brief questionnaire sent by email to 250 Uruguayan veterinarians.

Dear Colleague please fi	ll in the blanks:			
1. How many courses an	imal welfare/good manag	gement practices have you	performed?	
One	Two	Three	More than three	
2. Do you remember the	years?			
3. In what area do you w	ork?			
Large animals (cattle, sh	eep, horses) Birds	Small (company)	Food industry (slaughte meat industry)	er house, Other
4. What importance do y handlers?	ou assigned to animal w	elfare/good management p	practices for technical performance	rmance of the veterinarian or
High	I	Media	Low	
5. Was the information animals?	received in the courses	on animal welfare/good	management practices usef	ul for your daily work with
Little	I	Much	Nothing	
6. Although animal well necessary in the current		Curricula when you took	the veterinary courses, do	you believe that it would be
Yes		No		
7. Are you willing to atte	end an activity relating to	this subject again?		
Yes		No		

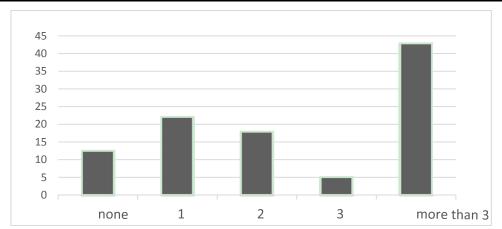
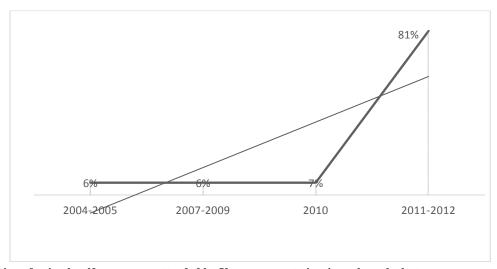


Fig. 1 Numbers of courses attended by each Uruguayan veterinarians according to their answers in February-March 2012.



 $Fig.\ 2\quad Evolution\ of\ animal\ welfare\ courses\ attended\ by\ Uruguayan\ veterinarians\ along\ the\ last\ years.$

and almost 12 million cattle head of European breeds for beef production and exporting of high quality meat to the world [14]. So it is crucial that veterinarians working with production animals should be involved with the "general principles for the welfare of animals in livestock production systems", which was supported and adopted by the OIE in a guide to develop animal welfare standards [21]. The 10% of the veterinarians answered that they worked with small animals (especially pets) and poultry (production and industry) and the rest did not answer this question.

The 95% of respondents considered that animal welfare concept is very important for their daily work with animals and also in relation to the applicability in their daily work. 65% reported that animal welfare has high relevance in their jobs. It is remarkable that veterinarians surveyed belong to the database of the Continuing Education Program, so perhaps they are better predisposed to attend those kinds of courses.

When asked whether they considered that the animal welfare should be part of the veterinary curricula, 85% considered that it should be part and all of them have expressed their compliance to be present in other courses on the subject.

These outcomes clearly showed that the OIE collaborating centre on animal welfare and livestock production systems, a consortium among Chile, Uruguay and Mexico, is working closely with the OIE official delegates and the Uruguayan animal welfare Focal Point of the Veterinary Services, increasing the awareness on animal welfare and promoting the training of all stakeholders including veterinarians [17, 21].

4. Conclusions

These results show clearly the importance of the transfer and exchange of knowledge among all the stakeholders to improve animal welfare in the country and in the region. And it contributes to improve food quality and safety as well as operator security and productivity of the sector.

It is necessary to continue spreading the animal welfare to all professionals, also including those who work in other areas.

Dissemination of knowledge and training of animal welfare issues among veterinarians are the key to achieve substantial improvements as drivers of animal welfare policy in the Americas.

Definitely, training of veterinarians is a key element to improve animal welfare through a big change in mind and attitude towards animals.

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