

**Veterinary Education:
Meeting the Needs of Official Veterinary Services**

Dr. Recaredo Ugarte

Director General of Livestock Services. Ministry of Agriculture and Fisheries. Oriental Republic of Uruguay
Member of the National Veterinary Academy of Uruguay
President of the Standing Veterinary Committee of the Southern Cone
First Vice-President of the World Association for Buiatrics
President of the Latin American Buiatrics Association

Original: Spanish

***Summary:** A common denominator of all the countries of the Americas is a steadily increasing demand for Veterinary Service officials to cope with the growth in regular activities, as well as new activities that are being added over time. According to the countries that replied to the questionnaire, animal production is generally of great importance to national economies. Although veterinary professionals in the Americas have very good clinical training, they are not so well trained in production, epidemiology, public health, statistics, animal welfare, laboratory and other aspects. The practice of private veterinarians in the activities of official Veterinary Services must be regulated by the system of rules of conduct and procedures of professional veterinary associations. For countries that do not have such regulations, accreditation appears to be the most appropriate route. The concept of vocational training, to include regional training, is enormously important because it allows, and indeed encourages, a regional approach to actions rather than just a national one. Export market requirements are increasing all the time. Areas of unquestionable importance that must be included in training for future veterinary professionals include health campaigns, the various laboratory activities, research, epidemiology, applied computing, quality management, food safety, good management practices, critical control points, animal identification, OIE list A and B diseases, and so on. They must also be given a thorough knowledge of national and regional rules and regulations, as well as of the organisations responsible for animals and animal products (OIE, Codex Alimentarius, and WTO) and of the countries or communities with which products are traded. Advanced veterinary students must be given an opportunity, via various routes, to receive training, especially work experience, in order to supplement their training as future veterinary professionals. It is official Veterinary Services that must give them this opportunity. Of all the above aspects, special mention must be made of the following:*

- *The rationalisation of public spending in most countries has led to growing problems that official Veterinary Services find it difficult to solve.*
- *The private veterinary profession constitutes a technical resource that must be used to advantage.*
- *Training programmes for veterinary professionals must be tailored to the needs of Veterinary Services.*
- *Advanced students could make a substantial contribution to meeting these demands.*
- *Official Veterinary Services must maintain an on-going dialogue with educators, in order to continually adjust the training of veterinary professionals.*
- *It is recommended to promote regionalised training in order to meet requirements that exceed political boundaries.*

1. INTRODUCTION

By answering the questionnaire, the following countries have participated in the presentation of this item: Argentina, Bolivia, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, France, Guatemala, Jamaica, Mexico, Paraguay, Peru, Trinidad and Tobago, United States of America, Uruguay and Venezuela. I am grateful to them for their invaluable assistance in providing the information for this study.

In our dealings, those of us with management responsibilities repeatedly come up against two situations that dominate the sector with our colleagues and associates. One is the need for more personnel in official Veterinary Services, especially technical personnel. The other is the problem of how to link up with the private veterinary profession, in order to enlist its support for the varied activities of official Veterinary Services. In Uruguay, as is undoubtedly the case in most of your own countries, in years past we were aware of the existence of a great body of professionals who were idle as a result of the economic crisis. However, it was virtually impossible to make use of them, for more reasons than one, but most of the time we found that they lacked the proper training to join national campaigns, even though such campaigns were so very urgent.

We shall endeavour to develop concepts to resolve the constraint of training for veterinary professionals, because we are convinced that, in the future, official Veterinary Services will not have the means to effectively recruit new officials. Therefore we will need to resort to new forms of action to meet the continual challenges of areas as sensitive for many countries as the animal production sector, which is a cornerstone of their economies. Apart from that, for all countries in the world, not only from the production standpoint, but also the social standpoint, in all its many different senses, the existence of an official Veterinary Service is an irreplaceable guarantee against the problems of animal species and fundamentally of zoonoses, which in some cases represent really dramatic challenges.

2. RANKING THE IMPORTANCE OF LIVESTOCK PRODUCTION

Based on the questionnaires received, animal production can be ranked into three categories in terms of its importance to the national economy: great importance (for ten countries); average importance (for eight countries) and little importance (for one country). This means that while each of us will give varying importance to this presentation, none will dismiss it out of hand. And this is logical. You should understand that, on account of my background and experience, I accord the greatest importance to the matter and I can assure you, as I have said before, that it is continually present.

Whether we are dealing with terrestrial or aquatic production species, or merely pets, the common denominator of official Veterinary Services in all countries is their non transferable responsibility to establish the rules that regulate their lives in their countries, protecting animal health and welfare, safeguarding human health, ensuring the safety of animal-derived primary foods and certifying the condition of animals or animal products to customer countries.

Accordingly, it will be useful for all of us to develop the item. Our own experience will certainly enable us to contribute elements that share one common historical characteristic. It is that in Latin America the training provided by veterinary schools continues to have a heavily clinical bias, owing to the influence of the French school of thought, which in general represents the European school. By contrast, the merger of technological and clinical training, as well as subject compartmentalisation, has given Anglo-Saxon countries a more rational basis, in line with the way in which our countries' productive and social needs have been evolving. Fortunately, the situation has been changing in the former group and nowadays new veterinary professionals have an opportunity to follow a variety of alternative routes, whether in the clinical, productive or technological fields. However, a clash between the two positions is still evident in specialised sectors and, whereas the Europeans continue to fight tooth and nail for their approach, we the countries of the Americas give precedence to widening the scope, to allow productive aspects the same room to develop.

3. VETERINARY EDUCATION

The French school has given our veterinary professionals a clear clinical profile, providing them with excellent training to cope with clinical problems, whether individual or group problems. This has enabled veterinary professionals to confront and successfully resolve issues affecting production, such as those relating to the dairy sector, controlling a range of problems from mastitis to podiatry-related aspects. This has undoubtedly helped to improve the production, and ultimately the profitability, of farms. In general, by applying preventive measures and using appropriate management concepts or biological elements (vaccines), it has been possible to control diseases which otherwise would have led to heavy production losses. As a case in point, suffice it to mention the problem of foot and mouth disease. However, there are many more, such as anthrax, clostridiosis, foot rot or blackleg in sheep, contagious ecthyma, swine fever, and so on. Therefore, from this point of view, our veterinarians are suitably trained.

There is another major area that has not been included, or else is just starting to be included but still needs to be updated to meet demand from countries, and it is an area we cannot afford to overlook. It is the area involving the quantification of actions to determine the profitability of production. It includes aspects such as which feed to provide, how much, in association with which other nutrient or supplement, how to make better use of a farm's existing feed supply, etc.

The answers to the questionnaire reveal a series of demands that are of great importance today. They include: epidemiology, which was mentioned by most of the questionnaire respondents, risk analysis related with epidemiology, management, surveillance and prevention. All these demands relate to both the administrative and production standpoints and applied to controlled situations, such as natural or man-made disasters, health campaigns, laboratory, communication, animal welfare, applied computing, and so forth. It means that the world of today no longer compartmentalises so much into clinical medicine or surgery or bacteriology, which of course continue to be important, but rather countries are demanding areas which call for an application that possibly includes the aforementioned subjects, but which needs to be seen as a part of ***a whole.

We need to tailor veterinary education to meet the needs of official Veterinary Services, which, in the final analysis, represent the needs of the country. Regrettably, the design, orientation and development of training systems are generally subordinated to the will of those in charge, and the latter have tended, at the very least, to slow down change,

often for such a long time that successive generations of students have been made hostage to their interests, with all the inevitable consequences for students and the country.

4. OFFICIAL VETERINARY SERVICES

Very often we, the official Veterinary Services, also share responsibility for the orientations of our education system but fail to assume that responsibility. And this responsibility is manifested directly or through intermediaries. I am certain that most of the organisations which you represent have veterinary professionals who are also teachers in a post-graduate training organisation. At least that is the case in Uruguay, and I can assure you with absolute certainty that I have seldom seen those veterinary professionals take action to help to resolve the problem. Instead they have been subject to a rationale of hierarchical dependency, in the best of cases, of a thematic nature. Undoubtedly the integration of private veterinarians into the activities of official Veterinary Services, which is one of the options to consider when speaking of “meeting the needs of official Veterinary Services”, must be subject to the system of regulations established by professional veterinary associations, because these are the rules of conduct and procedure that guide the practice of veterinary professionals in their countries. However, since no such system exists in countries like Uruguay, they must seek regulations that legally bind, guarantee and officialise these actions. In Uruguay we have opted for the alternative of promoting a law to govern what we call accreditation, by means of which we meet that demand for legislation. Accreditation does not simply mean registration; it requires professional veterinarians to undergo a programme of training and refresher training, which is updated at regular intervals and makes them morally and effectively accountable for their actions. In addition, we are lobbying the authorities of the sole Veterinary Faculty of Uruguay to adapt the training curricula of new veterinary professionals to ensure that, by the end of their studies, they can receive their accreditation straight away, without being required to undergo the training programme. This is a clear response to the needs of official Veterinary Services - the title of our technical item. It also serves as a good example of how we can make use of a great body of technical work that will undoubtedly enable us to meet the needs of our official Veterinary Services faster and more authoritatively.

The other element to be included in the training of private veterinarians, to ensure that it meets a country's needs, is to instil in them the concept that their professional independence does not give them the right to ignore the responsibilities of official Veterinary Services and that they must direct their efforts towards upholding those responsibilities, in order to fully discharge their responsibilities as professionals, which do not end with meeting ad hoc demands from customers. An early warning or timely communication can avert tragedy and, furthermore, as professionals they share responsibility for the consequences. Anyone graduating from a training centre must be made aware of these concepts, which, at the same time, will allow him or her to appreciate the value of their graduation even more.

5. REGIONALISATION

Many countries in the world have ascertained the need to forge alliances, with a variety of applications. The first of these applications, which has been around for as long as anyone can remember, is a military one - either to protect against a threat from a more powerful enemy, or in a colonising spirit - which called for such partnerships. The alliance concept gradually evolved over time to mean different things, without shedding its former connotations. A positive example of such alliances today is joint participation in various events by two or more countries in order to boost trade and reduce tariff and non-tariff barriers and so promote the development of the countries involved. This is a simplification of a more complex issue.

Another alternative adopted by the Southern Cone countries has been to join forces in the Standing Veterinary Committee of the Southern Cone (CVP), within the Southern Agricultural Council (CAS). One of the aims is to carry out coordinated and more intensive health campaigns in order to achieve urgent aims in a number of different areas. Undoubtedly the most important aim is to eradicate foot and mouth disease, and we are sure to achieve that aim. In addition we are agreeing on common policies to combat exotic diseases and have every reason to be confident that this will help to protect us. What is more, we have realised that, in dealings with missions from countries in highly demanding markets, which verify our health, production infrastructure, documentary and other conditions, we need to negotiate as a group. This is because we consistently find that when it is we that have the problem, we are required to submit to scrutiny from associated groups of countries, but when the reverse happens, our activities are considered hostile to the country involved. This is nothing new and you are sure to have met with similar examples yourselves.

I believe that the same is happening in education, even though there is no intrinsic reason for a geographical area to coincide. This has several comparative advantages that make us warmly defend it. Firstly, it widens the scope of training and competency of veterinary professionals and encourages their continual improvement. It also makes it possible to boost the use of material resources, of which there is not normally an overabundance. It trains veterinary professionals who can practise in different countries with knowledge adapted to the needs of those countries. The countries' current forms of association allow veterinary professionals to practise legally in several countries. This last factor clearly makes the inclusion of private veterinarians a potential tool for application in a number of countries,

contributing to the aim of swelling the ranks in the various official veterinary activities, where health campaigns undoubtedly play a leading role.

6. WHAT TYPE OF PROFESSIONAL DO VETERINARY SERVICES REQUIRE?

In Uruguay the official Veterinary Services face two realities that will have a great impact on the future of their activities. The first is an insufficient number of technical staff to meet the demand, not only for existing activities, but above all for the new activities being created as a result of continually changing demand. The second reality is the ageing of veterinary officials, which in turn leads to other consequences. One is that, due to their age, officials are shortly going to retire and another is that most of them have such a high level of training that it would be a pity if they had nobody to whom to pass on their knowledge, and above all, experience.

This reality, which we insistently refute, has created for us a special sense of inquisition aimed at remedying a situation that can lead to wild extremes and for which we are going to be held responsible. Therefore we feel that this is an excellent opportunity to convey to you a very hard present-day experience, and also share the proposals that we have devised to resolve the situation. In turn it is an opportunity to hear any ideas that you have which might help with this example, as well as other countries that might be experiencing similar realities, although of different origins.

To round off this introduction, official Veterinary Services unquestionably need officials specialised in a variety of areas, such as: health campaigns; all laboratory sectors; research (a task that can be shared with some specialised national organisations); epidemiology; risk analysis, assessment and management; applied computing; quality management; food safety; good management practices; critical control point systems; animal identification, etc. In this forum, I do not wish to miss the opportunity to refer you to the principal areas demanded by the countries that answered the questionnaire, the majority of which coincided with the above. They are: veterinary public health, prevention, food safety, knowledge of rules and regulations, access to applied technology, epidemiology, knowledge of the responsibilities of the official Veterinary Service, information analysis, administrative management and situation management skills. From what all of you have said, we can confirm that we have similar needs with regard to areas and that the shortcomings which we are experiencing in training, whether in the north or south of the continent, are pretty much the same.

In addition, I should like to inform you that when the various countries were questioned about the commercial importance of animal species in their countries, they all singled out cattle, pigs and poultry as the prime species.

However, what I believe to be of greater importance for us all is that most of the countries stated in their answers that the training being provided by training centres is failing to meet the needs of official Veterinary Services. This must be borne in mind when we put forward our draft Resolution, because we must commit ourselves to establishing dialogue with the universities of the Americas in order to move towards remedying this training shortcoming, especially since practically all of our Veterinary Services have ties with vocational training centres.

Paradoxically, in their answers to the questionnaire, most countries said that they use students in their veterinary activities, in different ways, several countries for curricular purposes, which would indicate that their training plans have taken into account the needs of the official Veterinary Services.

To come back to the key aspects, there was almost unanimous support for the idea of participation and sharing, with a proposal for discussing change that includes both educators and students.

Neither is there disagreement that private veterinarians should participate in activities under the responsibility of the official Veterinary Service and that they should be accredited for this. There is also general agreement that such accreditation must be linked with training and regular refresher training. The areas of health campaigns, accredited laboratories, industrial processes, food safety, zoonoses, animal welfare, fish protection and bee health, are supported by all countries. By involuntary omission of the speaker, the questionnaire failed to include pigs, which would certainly merit the same consideration.

Another positive factor is that virtually all countries have experiences and provisions to support the participation of private veterinarians in different activities under the responsibility of official Veterinary Services.

Yet another positive factor is that countries agree on the need to harmonise veterinary studies for the interpretation and assessment of region-wide situations and actions. When countries were asked to list the most important areas, those that stand out are: the eradication of zoonoses, the early diagnosis of OIE list A and B diseases (which in the future will be merged), globalisation and free trade treaties, health restriction criteria, exotic and emerging transboundary diseases, contingency plans, etc., all of which are new from the standpoint of veterinary training.

It clearly emerges from the above that, in all the countries of the Americas, we will need to promote changes in the training of future veterinary professionals, including new areas, which will determine how this is done.

Master's degrees and other specialist degrees will play a dominant role in many of the areas mentioned, but we must not lose sight of the fact that in many cases these areas will form part of the basic training required by our countries.

All of this would indicate that the time has come for us to thoroughly overhaul the veterinary curriculum and that it will be wise to discuss what type of veterinary professionals our countries need. I make bold to say that, without relinquishing their identity, new veterinary professionals will be required to have more training in the new technologies and orientations that the world demands.

7. INVOLVEMENT OF STUDENTS IN OFFICIAL VETERINARY SERVICE ACTIVITIES

Two advantages clearly emerge when considering this point. Integrating students into an area of the official Veterinary Services gives them personal experience, which will not only be of use to them in the future, should they join the respective veterinary teams afterwards, it will also help future veterinary professionals to experience less of a shock when they eventually enter the working environment. They will already have experienced from the inside what they are involved in and this will also make them less likely to commit serious mistakes. Furthermore, this student force enables the beneficiary Veterinary Service not only to increase their labour force but may also lead to students helping to improve services.

Some aspects are essential if student integration is to be advantageous. Firstly, students will need to be advanced and to have completed specific areas of training. Secondly, the work placement must not be too short. We consider six months to be a suitable length of time. There is one constraint, though, and that is that students at this advanced level are usually seeking to finish their training and do not give priority to work placements or earning credits through activities such as these.

The other point that would need to be discussed is whether or not such work placements should be part of the curriculum. If they are made part of the curriculum, it gives student involvement more importance. It also needs to be decided whether or not to pay students. It should be made clear that if it were decided to pay students, this must never be in the form of a salary. However, it could be take the form of a per diem allowance to cover the costs of travel, subsistence, etc.

Apart from all these potential ways of involving students in the activities of official Veterinary Services, there is one that will always be welcome and does sometimes happen. It is when students choose to join our Veterinary Services because they are happy to be involved in a particular sector of activity, for reasons of vocation, solvency or even due to economic problems. It is an exception, but it does exist and it induces such students to seek more training and specialisation.

8. CONCLUSIONS

I consider the most important aspects to be the following:

8.1. The rationalisation of national public sector spending and increasing demand for regular activities or additional new activities, is leading to a growing problem that official Veterinary Services find it very hard to resolve.

8.2. This is encouraging the study of alternatives to resolve these problems.

8.3. The private veterinary profession is a technical force that can be used as a tool for integration into the various activities. For this official Veterinary Services must encourage and develop the idea of involving the private sector.

8.4. The postgraduate student sector is another alternative to be considered.

8.5. Both the private veterinary and postgraduate student sectors share the common constraint that they lack the sort of training needed to meet the requirements of official Veterinary Services. Furthermore, the effective integration of the private veterinary profession calls for provisions to regulate the profession. In the case of students, it must be decided in what way they should be integrated, the best alternative being to include work placements as part of curricular training.

8.6. An on-going dialogue must be promoted between students and official Veterinary Service managers, in order to continually adapt the training of new veterinary professionals to the needs of the official Veterinary Services - which are the country's needs. It is advisable to promote regional training. This will pool efforts in various fields and so help to resolve a multitude of situations that exceed a country's national boundaries. It will also make it possible to harmonise the interpretation and assessment of situations and actions, which will result in optimising resources to

provide a more effective response in a shorter timeframe. We need to have the right tools to control exotic, emerging and re-emerging diseases, and these tools are usually available within the regional sphere.

8.7. Regardless of how important a country's livestock sector may be, however, or what its most important animal species is, official Veterinary Services consider it necessary to ensure on-going contact between the countries of the Americas and their centres for training veterinary professionals, to integrate the private veterinary profession and advanced veterinary students in their activities and to continually improve all sectors.

9. BIBLIOGRAPHY

This document has no bibliography since it is the outcome of the speaker's experience, gleaned from many years of practising as a veterinarian, as well as an official veterinarian, at all the professional levels of Uruguay's official Veterinary Services.

Whilst the precedents of organisations such as the European Commission were consulted, the focus is on ways to regulate the responsibility of veterinary professionals.

The speaker is very grateful to the countries of the Americas, whose opinions were so useful in guiding the presentation of the item.
