

## **Alternative medicine in dairy breeding: the key-role of atypical veterinarians**

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## **Abstract**

There is a scientific debate on impacts of private stakeholders increase in agricultural extension services. Some social scientists consider that concurrence goes against investment in new techniques. However, in the past many agricultural innovations have been promoted by private stakeholders, for example in organic farming and conservation agriculture. At present time, European Union encourages farming sector to reduce antibiotic use, in order to avoid antibiotic resistances in human medicines. In consequence, farmers show great interest for alternative medicine, like those promoted by atypical veterinarians: homeopathy, aromatherapy, plant and manual medicines.

Our communication focuses on a collective of homeopath veterinarians, which is called “GIE Zone verte” (ZV) and which is dedicated to farmers’ trainings and advisory services, mainly for organic breeders. Our analysis aims to understand why and how they are committed in diffusion of alternative approaches in animal health management. Our survey is made of (i) interviews with these professionals and also with dairy farmers, technicians and trainers, and (ii) observations made during trainings on animal health and meetings of farmers’ groups. We show that members of ZV are part of a professional segment of atypical vets, who defends another vision of vet medicine. Farmer autonomy and animal health equilibrium are the key concepts of their trainings. But they keep an expertise position with respect to farmers. In conclusion, we discuss their interaction with trainings organizers and their role in breeding innovation processes.

## **1. introduction**

Many rural social scientists deal with a major transformation of agricultural extension services, i.e. increase in private stakeholders like firms or self-employed workers (Kidd et al., 2000; Laurent et al., 2006; Rivera and Zijp, 2002). Yet withdrawal of state support for adapting farms to new health and environmental norms is viewed as a problem by some researchers (Compagnone et al., 2015). They consider that competition between these stakeholders is working against the farmers’ interests, as the firms that employ them invest more in marketing than in knowledge. Moreover, they assert that advice given by private stakeholders such as technical-salesmen is biased as they have products to sell.

Nevertheless, many agricultural innovations have been promoted by private stakeholders in close relationship with atypical farmers, for example in organic farming (Hellec, Blouet, 2012) or in conservation agriculture (Coughenour, 2003). For these two new ways of farming, state extension organizations and state scientific research institutions have overlooked techniques coming from the grass roots.

At the present time, the European Union is encouraging the farming sector to reduce antibiotic use, in order to avoid antibiotic resistance in human medicines. As a consequence, breeders are showing great interest in alternative medicines that have long been promoted by atypical veterinarians who are specialized in homeopathy, aromatherapy, herbal or manual medicine.

This article focuses on a French association of homeopathic veterinarians called “groupement d'intérêt économique Zone Verte” (ZV). We will analyse their role in experimenting and spreading alternative animal health management methods in cattle and dairy farms in France. Our material of analysis is composed of (i) interviews with two veterinarians and ten farmers; (ii) observations of three training courses and one meeting organized by ZV, and of five meetings of the animal health commission of the French organic farming technical institute (ITAB). Interviews with farmers have been carried out in tandem by a sociologist and an animal science researcher, in order to analyse animal health, feeding and production management and to assess influence of social and professional network on this management. Interviews with other agricultural stakeholders focused on their professional activities, their relationships with farmers and with other technicians and advisors, who are either rivals or partnerships. Here we present the results of the first step of our survey. Further interviews and observations of training courses will be carried out.

Our theoretical framework is based on the interactionist approach to professions (Hughes, 1984), which studies the dynamics of social groups which control a specific domain of human activity, such as medical doctors or lawyers. According to this scientific approach, professional groups are in constant movement: they are faced with internal forces such as disagreement amongst profession members as to their mission and the way of achieving it; they are also faced with external forces such as competition with other social groups that have similar activities, or relations with the public, which stabilize or destabilize them (Abbott, 1988). In France, vets form a professional group, as they have a monopoly of many activities such as making health diagnoses on animals and prescribing medicines. As for other medical professions, their monopoly is based on professional knowledge and skills. Moreover, in France, they have a mandate to purchase public health missions like controlling epizootic diseases (Bonnaud, Fortané, 2015).

Here in this article, we will show that there is a dissident group within veterinarian profession, which struggles for another way to cure farm animals. Their curative methods are in a certain extent opposed to current veterinarian knowledge and skills. Moreover, such methods entail different relations with farmers, that is less emergency interventions and more advisements and trainings. This goes with another sharing of activities and expertise domain between veterinarians and farmers regarding animal health management. Yet farmers working with atypical vets are supposed to be more autonomous to cure their herds, but we will demonstrate that they still need external view of animal health professionals.

In the first part of the article, we analyse the place of ZV members within the atypical vet collective. In the second part, we describe activities carried out by ZV vets, their vision of good animal health and the position they adopt with farmers and other livestock farming advisors.

## **2. Alternative veterinarians, a professional segment with blurred lines**

At present, ZV consists of ten homeopathic vets (five men and five women) who are spread all over French territory. Some of these vets have additional specializations: manual medicine, aromatherapy, herbal medicine, bio-geology, cheese-making. The ZV headquarters, with its secretariat of two people, is located in the Doubs, in eastern France. The constitution of this group is directly linked to the rise of organic farming in France, and with the networking carried out by the Organic Farming Technical Institute (ITAB). As we will show, ITAB does indeed participate in structuring the professional segment (Bucher and Strauss, 1961) of veterinarians engaged in promoting and implementing alternative approaches to animal health management of livestock farms.

### **2.1. From *Symphytum* to the “GIE Zone Verte”**

The vets who founded ZV initially met together within the ITAB, during technical days on livestock farming in the end of the 1990s. These days brought together many rural veterinarians who specialized in alternative approaches to health. About ten of these vets chose to found an association, *Symphytum*, in order to meet together regularly and discuss their practices. During

one Symphytum meeting, one of the participants, Doctor Giboudeau, presented the OBSALIM® method which he had developed with ruminant livestock farmers in his region during the 1990s. This method aims at identifying food problems in the cows, from the observation of various signs: condition of the coat, the eyes, the muzzle, the state of the dung, etc. The originality of this method is the place given to the observation of the animals, as the observation points selected take their inspiration from homeopathy. It differs from the methods used to calculate the animals' diets, which are based on average needs according to the type of animal.

Within Symphytum, several vets were very interested in the OBSALIM® method, and collaborated to adapt it to other species of ruminants as well as cattle, such as sheep and goats. Once the principles of the method had been stabilized, they chose to form a group, the economic interest group "Zone verte", in order to diffuse this method to livestock farmers. The creation of the ZV in 2002 indirectly caused the closure of the Symphytum association.

The ITAB is today the principal meeting place of alternative veterinarians. The ITAB livestock committee consists of vets including a ZV member, researchers, livestock farmers and livestock advisors. Its role is to define the priority actions to be carried out in organic livestock farming. More widely, many alternative rural vets regularly attend a variety of events organized by the ITAB, such as technical days, and research and development meetings, or within the framework of research and development projects coordinated by the technical organization.

This participation in various ITAB activities can be explained by the fact that organic farmers are a special audience for alternative vets, who work with conventional livestock farmers too. Organic farming specifications impose limits on antibiotic treatments, and require the use of alternative products as a first recourse. These specifications answer the more general principles of organic farming, which aims at a high level of animal health and welfare (Vaarst, Alroe, 2012) and which are shared by these atypical vets.

## **2.2. Atypical vets for alternative animal health techniques**

Behind a great diversity of profiles and activities, points of similarity can be observed between the vets working with the ITAB, in particular the fact that they mobilize knowledge of a different kind from that of conventional rural vets. Most of them have a specialization in homeopathy, aromatherapy or herb medicine. However these therapeutic approaches are not taught in French veterinary schools. In particular, homeopathy is not taught to vet students because its effectiveness has not been proven by medical scientific institutions. So the alternative vets turned towards the human medicine colleges or the homeopathy center in Liège, in Belgium, for training in homeopathy, or towards Human pharmaceutical faculties and specialized works to be trained in the therapeutic use of plants. The use of plants is presented as "natural" and "traditional" medicine by the professionals who use them, as opposed to medication produced by synthetic chemistry.

The vets within ITAB also show great interest in preventive approaches, associated with feeding and grazing management. A large number of them refer to ecopathology, an approach to the health of herds which appeared during the 1970s and which centered on the risk factors related to rearing conditions, and calling the industrialization of agriculture into question (Fortané, in press). Most of these professionals work in private practices. Some work within the framework of annual contracts with livestock farmer groups, thus ensuring closer monitoring of the health of herds (Combettes et al., 2012). Finally, most of them regularly run training schemes for farmers, advisors and agricultural technicians.

Their relationship with farmers is different from that of the other rural vets. The rural vets mainly intervene as emergency doctors, to look after seriously ill or injured animals, and to date give very little advice (Duval, 2016). In addition, conventional rural vets market the medication used by

farmers, combining prescription and delivery. As for alternative vets, some of them have sometimes developed a considerable business selling therapeutic products, but others refuse to do this. This is the case of ZV members, who do not market medication from synthetic chemistry. They also do not sell any homeopathic or plant-based products even though they may recommend them.

### **2.3. Collective actions of atypical vets**

Atypical vets form a professional segment within the veterinary profession insofar as they advocate another way of looking after animals, based on knowledge of a different kind from what is taught in veterinary schools. What is more, they engage in collective actions disputing public political measures involving their profession. Two subjects in particular have been the subject of controversies in which ITAB has taken part: obligatory vaccination against Blue Tongue Virus (BTV), and the use of therapeutic plant-based products.

Obligation of vaccination against BTV was adopted in France in 2008, to stop extension of this epizooty in sheep and cattle farms. This disease does not have any health risks for human health, but it generates economic losses for farmers. Regulations for its prevention aim above all to benefit the international cattle trade. ITAB has committed itself alongside other organizations such as the ZV or the national organic farming union (FNAB) against obligation to vaccinate against BTV and for freedom of choice for farmers (Ollivier, 2013). On its website<sup>1</sup>, ITAB goes directly to the arguments advanced by the ZV vets: the effectiveness of vaccination is not proven; on the other hand, this technique carries risks, as it weakens some animals, and because of the dangerous nature of the additives used. Other homeopathic vets also call vaccination as preventive medicine into question. This position goes against basis of veterinary profession in France. As shown by Delphine Berdah (2012), for a long time, vets had competition from farriers and traditional healers. They acquired expertise by joining the Pasteurian movement and by obtaining the monopoly of livestock vaccination for the control and eradication of zoonoses.

The second subject for collective action of atypical vets is the use of plant-based products in veterinary medicine. Current French regulations, which come directly from European regulations, indeed prohibit the use of many plant-based products for therapeutic purposes. Either these products must be regarded as medication, and therefore obtain marketing authorization (which is a long and extremely expensive procedure for complex molecules), or they must be assimilated with food supplements, and thus not be prescribed for medical care. Today ITAB coordinates the debates and actions to be put in place to obtain legal recognition of care products based on plants, as has been done for crops. But this is coming up against a State requirement, concerning proof of the absence of risks to human health. Homeopathy however benefits from a lighter marketing authorization procedure in human and animal medicine.

So ZV vets are integrated into a wider collective of rural vets using alternative animal care techniques. It is a vaguely defined professional segment for which ITAB is a special meeting place. We will now describe the work of the members of this group to show how their different conception of health is taught to livestock farmers.

### **3. Teaching farmers to manage animal health differently**

The majority of ZV members no longer work in an independent practice; so their work consists exclusively of training ruminant livestock farmers, and of providing services of individual advice. As we have indicated, they have a positioning with respect to farmers that is very different from that of conventional rural vets. Their intention (Lémery, 1994) with livestock farmers, i.e. the project of transforming livestock farming which underlies their training activities, can be summarized in two key concepts: farmer's autonomy and herd equilibrium. These concepts are fundamental to their teaching, both in its content and in its form.

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<sup>1</sup> The actions carried out by the ITAB for the recognition of plant-based products in veterinary medicine are presented on their website: <http://www.itab.asso.fr/itab/sante-animale.php>

### **3.1. Training and transmitting**

From the very beginning, ZV has been extremely active. Its training programs have appeared to be in line with the needs of some farmers, and in particular farmers who have converted to organic farming. ZV was created at the very time when the number of organic livestock farms was growing rapidly, after public policies began to support its development in France. ZV also met great success with livestock farmers near their head office in the east of France. Most of these farmers produce milk for making cheeses with protected designations of origin, so they have to respect specifications. These specifications are different from organic farming specifications as they do not impose a limit on antibiotic treatments, but a maximum use of pasture.

Whether for organic livestock farmers or for farmers in the Franche-Comté, training officers, who are in charge of organizing training programs, have played a key role in the success of ZV, since they select the educators. In particular, in the sub-regions of the Doubs and the Jura, training officers in charge of livestock management field chose to develop training on alternatives in animal health, in agreement with their partner farmers.

The technical contents of the training given by ZV vary according to what is requested: general training which brings together the principles of OBSALIM®, the principles of homeopathy, and recommendations concerning feeding and grazing management, or more specialized training programs in a precise field or method. The training courses always structure the time in the classroom, and the time on the farm. Some of them, like training in manual medicine, involve interventions on animals. Educators and ZV members share the same objective, which is to make livestock farmers more autonomous in animal health management: to enable farmers to acquire the knowledge and know-how required to look after their animals themselves. This autonomy also answers a need for organic livestock farmers and all those who want to turn to alternative methods, because conventional rural vets are not trained in these approaches.

Moreover, ZV teaching allows farmers to appropriate a dimension of livestock farming work which is not often mentioned: the emotional ties with the animals (Porcher, 2003). Farmers particularly appreciate the emphasis placed on animal observation by OBSALIM® method. As one of them said, these are things that he used to do “unconsciously”. However the fact of putting into words a normal, not to say banal activity, enables them to step back and take a new look at their practices. They are able to discuss a whole area of their work which is hardly ever mentioned, as livestock farming work is often primarily discussed via statistical data representing technical and economic performances.

### **3.2. Achieving herd equilibrium**

ZV vets are positioned around a particular vision of animal health, considered as a balance to be achieved. According to them, the animal must live in balance with pathogens and with parasites. The aim of herd health management is not to eradicate the disease but to strengthen the animal's immunity to enable it to confront these pathogens and parasites.

This way of considering animal health and disease is different from that of conventional rural vets. Let us take the example of parasite management. When they graze, cattle encounter parasites which infest their digestive system. ZV members consider that by exposing the animals to parasites gradually, from a very young age, they are able to acquire sufficient immunity and thus cohabit with these parasites. This supposes quite specific grazing management from a very early age: reserving fields with low parasite pressure for the young animals, changing the animals' grazing lands sufficiently often, avoiding overgrazing... Conventional rural vets generally recommend systematic treatments, which aim at eradicating the parasites in the animal's stomach. By doing this they do not call herd management methods into question, and confine themselves to a medicinal approach.

The same type of argument is used to justify refusal of vaccination against BTV: in the documents published on their website<sup>2</sup>, ZV members urge farmers “to learn how to live with BTV”, “to tolerate

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<sup>2</sup> Documents online: <http://www.giezoneverte.com/dossier-special-fco.php>

the natural infection of the animals to allow them to build up lifelong natural immunity”, natural immunity which would be different from what they name “vaccine immunity”.

Furthermore, ZV trainings focus on animal feeding as they regard it as the main factor to prevent animal health problems. Here their recommendations are not in opposition with current animal science knowledge. But they know more about animal feeding than other rural vets, who have learned to cure sick animals but not so much about prevention and nutrition. So ZV encourage farmers to care at the rumination process and to enhance it. For example, they recommend to give animals roughage first, and feed concentrates after, once roughage has been totally eaten. They also advise farmers to let feeder empty between morning and evening meals, so that the herd ruminates properly. Along to ZV vets, most farmers feed their animals too much to get important milk and meat production, but this creates rumen malfunction and part of the feed is not digested but just ruined. To achieve a balance between production objective and high animal health level, ZV vets encourage farmers to produce hay with lot of fibers.

### 3.3. Trainers or « gurus » ?

We have already pointed out that autonomy is a central concept for ZV members. By following training schemes on animal health questions, farmers are seeking to be less dependent on the different external professionals who come to their farm to advise them about livestock farming. By implementing some simple recommendations from OBSALIM® training programs, such as distributing first roughage, the farmers can quickly see results. However, not all of them systematically implement the vets' recommendations. But they are still greatly influenced by a technical presentation which goes against what they were taught before.

But this autonomy acquired by livestock farmers appears ambiguous: admittedly they keep their distance from the usual advisors and the conventional rural vet, but by doing this, they refer almost systematically to what the ZV vets say. Even if the farmers do not implement all their recommendations, they look like experts – some organic farming advisors even call them “gurus”. In fact, during the training programs that we have observed, some vets structure political discourse and technical discourse. Sometimes they are virulent in saying that the pharmaceutical industry controls the animal health sector, accusing conventional rural vets of being too involved in this industry because they market their products directly. By these criticisms, they try to detach the livestock farmers from their usual advisors in order to attach them (Goulet, Vinck, 2012) to their vision of veterinary medicine, opposing conventional approaches and alternative approaches in the animal health management.

Disagreements therefore appeared between certain ZV members concerning training methods. This led to the withdrawal of one of the founder members, the very person who developed OBSALIM® method. He reproaches some of his colleagues for not teaching this method correctly, and for only giving farmers ready-made recipes, or even excessively dogmatic principles of herd management. For Doctor Giboudeau, OBSALIM® is above all a method of diagnosing the state of the herd, which has to enable problems concerning animal feed and their digestive capacities to be detected precisely. This veterinarian therefore chose to recreate a company devoted to OBSALIM®, and to form a network of advisors capable of teaching it. These advisors are invited to create groups of farmers who regularly experiment the method together, with what they call “hair rally” (“Rallyes Poils” in French). For a whole morning, farmers visit each of their farms and share their observations on herd state. By such common work, they aim to enhance their observation abilities.

Another point of disagreement has also appeared concerning training in homeopathy. For some homeopathic vets, the farmer cannot become homeopath correctly because he only observes his own animals. The vets sees a much more animals in different farms, so he has in mind an important number of clinical cases and that help him to make the right diagnosis for a new sick animal. What is in question here is the work division between vets and farmers. Some vets consider that homeopathic diagnosis can only be made by specialized professionals. During our fieldwork, we have observed that not a farmer was able to cure its herd with homeopathic

methods. They usually use one or two remedies for some specific problems. Some of them systematically refer to a homeopathic vet to choose the good remedy; indeed there is a paying phone service in ZV for such medical consultations. We have noted the same phenomena for manual medicine: farmers prefer to use the services of an osteopath rather than intervening themselves on their herds, even if they had undertaken training courses in that domain. Finally, farmers who participate to ZV trainings become more autonomous in animal observation and early detection of animal health imbalance, but they still depend on specialists to cure sick animals.

#### 4. Conclusion

Today, alternative vets, and in particular those of ZV collective studied in this article, play a key role in the field of animal health management innovation. They promote another way to cure animals at the farm level, through training and advisement activities. And they take actions at a national level in order to change state regulation, for example by contesting obligatory vaccination.

However, ZV veterinarians lean on other stakeholders to bring about changes in animal health management. Indeed, an innovation process is not the result of a sole stakeholder action, but it is supported by a social network, which structure has to be characterized (Coughenor, *op.cit.*; Compagnone, Hellec, 2015). Behind atypical - and charismatic - veterinarians, there are discreet but essential stakeholders that we call mediators and who facilitate farmers' access to new methods of animal observation and animal health management. Indeed, ZV training activities depend on training officers actions, as ZV is not a training center itself. In Franche-Comté, training officers are employed by agricultural training centers, which are independent of Chambers of agriculture and of farming unions. This is a reason why they could bring in atypical veterinarians. In other regions, ZV vets are mainly contacted by alternative farming associations, like organic farming associations. So training officers play a major mediation role as they choose trainers and decide what kind of new methods and techniques to disseminate or not to farmers.

Of course, farmers themselves are major stakeholders of innovation process, as they are final decision-takers of innovation adoption. We showed that ZV training success is partly explained by focus made on affective tie with animals. Farmers get interest on methods that help them to observe more accurately their animals. But training courses are only the first step of animal health management changes, and it is difficult to say to what extent these changes are implemented on herds. We observe that some farmers form groups that meet regularly to enhance their observation abilities. Besides, some farmers turn to homeopathic veterinarians for advice and medical diagnosis. But all breeders keep on working with their close rural vet for emergency intervention or antibiotic prescription when necessary. Whereas atypical vets insist on break between current and alternative medical methods, farmers cross both to manage animal health on their farm.

Yet there is still been very little study of the use made by farmers of lessons received during training courses. The question of hybridization between various forms of knowledge still remains: between knowledge used by conventional veterinary medicine which has been validated by institutional science and other types of knowledge promoted by alternative vets who concentrate more on observation, sensitivity and experience.

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