

Organic Animal Husbandry in South America and Caribbean

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Abstract

In the last decade, organic livestock has undergone major developments, especially in southern Latin America. The control of parasites and pathogenic microorganisms presents good results with actions that include adequate management, rustic breeds and the use of homeopathic and/or herbal products or biological control. Some public policies have given very positive results in marketing production. In spite of these results, several aspects need to be improved.

Introduction

Conventional livestock has seen great developments, especially in southern Latin America, due to its favorable natural conditions: large areas of grassland, favorable climate for grain production and tradition of raising cattle. However, this production model has presented several problems and is being criticized in and pressured to adapt to three aspects: environment, animal welfare and food quality. In addition, organic food is becoming more valued, and the demand is increasing both for internal and external consumption. In this context, the organic livestock production chain is growing, but some aspects should be improved in this new production network.

Overview of organic livestock production

The top organic breeding countries are Argentina, Brazil and Uruguay, mainly with beef cattle and sheep. Organic milk cattle and buffalo, poultry, pigs, bees, llamas, goats and aquaculture, although in less quantity, are also growing in many countries. Although there is a considerable number of animals raised on organic systems and even exportation of food of animal origin (mainly meat), there are few available statistics. Some data are in the following table. Blanks do not mean that there are no herds but that there is no official information.

TABLE 1. Countries with organic livestock (minimum 1.000 animals)

| | SHEEP | BEEF CATTLE | Buffalo | POULTRY | BEEES HIVES | LLAMAS |
|-------------------------|----------------|--------------------|----------------|----------------|--------------------|---------------|
| ARGENTINA (2013) | 880.000 | 67.400 | | | 31.000 | 1.180 |
| BRAZIL (2010) | | 99.000 | | 550.000 | 96.000 | |
| FALKLANDS | 196.000 | 1.300 | | | | |
| URUGUAY (2003) | | | | | 11.400 | |

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| | SHEEP | BEEF CATTLE | Buffalo | POULTRY | BEEES HIVES | LLAMAS |
|----------------------|--------------|--------------------|----------------|----------------|--------------------|---------------|
| MEXICO | | 3.000 | | 4.500 | 37.000 | |
| COLOMBIA 2011 | | | 4.000 | | | |
| CUBA | | | | | 24.000 | |
| NICARAGUA | | | | | 13.500 | |
| BOLIVIA | | | | | | 2.100 |

TABLE 2. Production of milk and eggs

| | MILK CATTLE | EGGS |
|----------------------|--------------------------------|--------------------|
| BRASIL (2010) | 6.8 million liters/year | 720.000 doz |
| MEXICO | 500.000l | |
| COLOMBIA 2011 | 180.000 | |

DISCUSSION

POSITIVE RESULTS

Several countries have made significant advances, mainly in the control of parasites and pathogenic microorganisms and in marketing the products, as we present below:

Concerning production: control of parasites and microorganisms

Successful results have been achieved by understanding the need to establish a preventive system that includes a set of procedures that ensure animal welfare, use rustic breeds and rotate animals to break the cycle of parasites. Under these conditions, soft therapies, such as those listed below, have great results.

- Homeopathy

The use of homeopathy in animals is booming in Brazil and is also being applied in other Latin American countries for a number of reasons: good results, the simplicity of its application as medicine aggregated to mineral salt or food or water, no resistance, no waiting period, no residues in food. Currently, Brazil is estimated to have 25 million bovines (milk and beef), organic or not, that receive the benefit of this therapy. A new method called Populational Homeopathy, developed for large herds, seeks not only to treat diseases but, above all, to act in their prevention, restoring the balance of organic animals. (REAL, 2014)

- **Bioactive herbs**

Many countries have a long tradition in the use of medicinal herbs. The development of organic animal production systems combined with the problems of drug resistance, high input costs and concern about toxic residues in foods have driven the use of plants or their extracts for both prevention and maintenance of animal health as well for conservation of stored grains. For the last decade in Brazil, popular knowledge is being scientifically confirmed and thereby gaining space and credibility. Studies have shown that plants or their extracts have an efficient anti-parasitic, antibacterial and insecticide action and may be used in animal therapies, environmental disinfection as well for conservation of stored grains. (ESCOSTEGUY, 2014).

- **Biological control**

In Uruguay, there are very good results for biological control of leaf-cutting ants and ticks with entomopathogenic fungi. (RODRIGUES, 2014)

These methodologies are just as successful when implemented separately or in combination. (DIAS, 2014).

Concerning public policies

- Two programs developed by the Brazilian government have generated very positive results for the marketing of organic food: (1) Food Acquisition Program (PAA) and (2) National School Feeding Program. It was made a legal requirement to purchase at least 30 percent of the products for school meals from family farmers, prioritizing organic foods. Organic products receive 30 percent more in price.

This supports small-scale farmers in one of the most difficult aspects of the productive process – gaining market access for their production. The program allows farmers to sell their produce directly to local public institutions such as hospitals, community canteens, food banks, orphanages and charities, without the need for a public bidding process.

DEMANDS AND NEEDS

In spite of the satisfactory results, several aspects need to be improved:

1. Technical assistance

There is a lack of technical assistance for organic breeders, which reflects the lack of knowledge in the area and education in veterinary and zootechnical colleges.

The study of the principles and standards of organic livestock and the permitted therapeutics and inputs is not part of most veterinary course curricula. SOTO, 2014, expressed the lack of specialized technical assistance and training of farmers in Mesoamerican countries. A survey conducted in Brazil by MITIDIERO, 2010 proved that 87 percent of the 157 veterinary medicine schools of the country do not address the therapeutics allowed in organic production in their curricula: homeopathy, herbal medicine and acupuncture. It is urgent to include the discipline Organic Livestock and related disciplines in the training of veterinary and zootechnical and agricultural technicians.

2. Feeding

Search for other sources of feeding besides soy and corn mainly for poultry and pork. Search for natural sources of essential amino acids as methionin. Control the advance of GMO corn.

3. Allowed inputs

SCHMID O & FRUEH B (Eds.) (2014). IAHA (IFOAM Animal Husbandry Alliance) Reader of the Pre-Conference *Organic Animal Husbandry across the world: situation, development needs and demands* and Workshop *Towards an Action Plan for the development and strengthening of Organic Animal Husbandry* at the 18th Organic World Congress 2014, 12-15 Oct., Istanbul, Turkey

Expand the methodology of use of bioactive herbs and biological control.

4. Animal welfare

Establish indicators of animal welfare in organic breeding systems

SUGGESTIONS

Create ways to encourage and pressure governments to adopt public policies to support the organic animal husbandry sector in research, teaching, extension, consumer education and marketing. Perhaps it is appropriate to create a task force to develop strategies to sensitize governments.

Update the training curricula of technicians. The inclusion of this new area of expertise is also fundamental and urgent.

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