



## Goat in Organic Animal Production

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### Abstract

Compatible species to adverse environmental factors are important in organic animal production. Physiological status and health of the animals must be maintained in the production models. In addition to available social needs and to exhibit natural behavior and it should be appropriate to the free culture system that reflects production. Despite the global climate changes, goats in organic livestock production; have some superior properties compared to other livestock species in terms of training, economic and biological aspects in addition to the adaptation to adverse environmental conditions in a short time, high genetic resistant to the diseases, the relative milk composition and yield. Goats also against some diseases that threaten human health, are more resistant animals. Economically, goat breeding in less developed countries and regions, very little arable land, forest and high mountain forests surrounding the village, is a form of instruction already made in accordance with the rules of organic animal breeding. First, organic livestock production is made at low cost in underdeveloped and developing countries with tropical and subtropical climate zones. In organic livestock production, present and future planning of goat production must strongly be considered.

**Keywords: Organic, Livestock, Goat, Climate**

## INTRODUCTION

Compatible species to adverse environmental factors are important in organic animal production. Small ruminants have been important components of rural life and still play a substantial role in the livelihood of farmers. The small ruminant sector is examined with particular focus on the possibilities of improving the sustainability of small ruminant systems and on the possible role of organic production to meet the demand of sustainability [1,2,3,4].

Goat production becomes an important alternative live stock production the farmers. They are being recommended as a considerable food source because of their ability to convert otherwise unusable vegetation on poor grazing land to meat, milk, fiber and skins [5,6,7]. The rate of global warming, including in the temperate zone, is expected to continue to vulnerable in coming years. Agricultural production from crops and livestock, and thus global food security, is already affected by climate changes and will continue to be influenced by global warming.

### Why Goat?

Among domestic ruminants, goats are the most adapted species to imposed heat stress in terms of production, reproduction and resistance to diseases. Goats are also more resilience than other ruminants. Goats has low body mass, and low metabolic requirements, minimize their maintenance and water requirements, in areas where water sources are widely distributed and food sources are limited by their quantity and quality. Heat stress is one of the major factors adversely affecting animal welfare and thus economic benefits of farms [8,9].

Goat breeds living in tropical and desert environment are considered as the most efficient ruminants that adjust to such areas. Goats are more concentrated in dry tropical and subtropical areas of poor agricultural potential and even on marginal lands. Goat production systems are believed to be

more close to organic and to be converted more easily from conventional to organic ones. The numbers of organic goats and that of organic farms have increased quite impressively, even though the share of certified goats, contrary to other animals, increased only slightly over time. Goats are particularly important in marginal agricultural land areas, especially in arid and semi-arid areas, goats are an important livestock component in all agro-ecological zones [10,11,12].

The special attributes (for organic breeding) of goats that make them particularly important in rural resource poor communities compared to other domestic ruminants include:

- ability to graze and utilize a wide range of poor quality forages and browse;

- ability to walk long distances; short generation intervals and high reproductive rates; high turn over rates on investment and hence low risk on investment; high energetic efficiency of milk production; efficient utilization of marginal lands;

- smaller carcasses which are conveniently marketed or consumed over a short time period an important factor in rural areas without cold storage; and flocking instinct which makes herding by younger and older members of the family possible.

The concept of organic animal farming can only fulfil the criteria for sustainability, if all requirements on animal health and welfare, together with product quality and ecological soundness, are strongly considered and controlled.

Genetic engineering is also promising for the production of goats resistant to pathologies, like infectious or parasitic diseases, and consequently for the reduction of chemical treatments and the improvement of productive efficiency [13]. Organic goat farming to reduce economic marginality and with a significant implication on conservation policy.

The number of goats around the world increased income [14]. This situation is due to the capacity for adaptation by goats to very different environments, to the development of goat farming in developing countries where subsistence

farming, barter economy and community culture are important, and where the market economy is relatively limited, and to the ecological image of goat farming and products in developed countries.

#### **In the Future**

Global organic production has increased significantly annually over the past decade. The basic principles of organic goat production include care, ecology, fairness, and health as stated by the International Federation of Organic Agriculture Movement (IFOAM). Organic goat production can improve animal welfare, protect the environment, and sustain rewarding rural live styles. There are challenges when dealing with organic goat production, especially when one hopes to control intestinal parasites and to achieve adequate nutritional management [15].

There are various regulations in different countries that apply to certify organic foods, and the number of regulations is growing. The standards can be certified under IFOAM then can be recognized in many counties around the world. These regulations serve as branding effort, not only to protect the “organic” brand but also to promote it. Future of organic goat production will have to rely on continue search for alternatives in nutrition and disease prevention and control that are environmentally friendly, human health conscientious and animal considerate [15].

Understanding organic goat farming from economic, ecological, and animal welfare perspectives will increase the likelihood of success.

#### **Can organic goat production be the answer to the concern of sustainability, animal right, environmental preservation, and rural economic vitality?**

Consumers increasingly view organic goat production as the appropriate way of both farming and rural living. Organic farming is a growing business. Producers and consumers alike do not necessary understand the challenges of organic goat farming from an economic, ecological, or animal welfare perspective.

One of the most important aspects of organic goat production is the certification process which means certain industry standards are compulsory. These standards may vary from country to country, although the guiding principles appear to be similar. The process of organic certification varies from region to region. It has been demonstrated that organic dairy goat production can be productive and sustainable. Organic goat meat production generally favors a feeding system that avoids a high energy diet with maximum weight gain. As a result, the carcass will likely accumulate less amount of internal fat around their heart and kidneys. A slower rate of gain, but heavier market weight, is therefore more advisable. Information pertaining to organic fiber production in goats is scarce[15]. Scientists further suggested that benefits of high value cashmere production and biological control of weeds and brush and current support of organic farming could render organic fiber production viable in goats. Goats are multi purpose animals raised for meat, milk and hair and have an important place in the economy[16]. During processing, organic milk is not allowed to be contaminated by chemicals. No synthetic materials that include preservatives and flavoring agents can be used during the processing of organic milk and other dairy products. Organic meat cannot come into contact with nonorganic meat during processing and no synthetic

materials can be used during the processing of organic meat and meat products. There are several opportunities that may impact the future of organic agriculture, including goat production. Grazing goats in marginal land that is organic through wild collection is promising. It can increase income of goat producers operating on these lands. Global acceptance of organic products like goat cheeses, meat and fiber is also an important opportunity for the future growth of organic markets [17]. While energy and chemical costs are high, practicing sustainable organic goat production in general has an economic edge. To capitalize on the opportunity of using marginal land for organic goat production, converting hill and upland systems to organic production efficiently will most likely be required in the future. Organic goat production can improve animal welfare, protect the environment, and sustain rewarding rural lifestyles. Traditional and alternative medicine holds the promise for alternative prevention and treatment of animal diseases. The future of organic goat production is to continue searching for alternatives that are environmentally friendly, human health conscientious and animal considerate. Understanding organic goat farming from economic, ecological, and animal welfare perspectives will increase the likelihood of success. Organic goat production will have to strive for a more sustainable system than the conventional one, off setting the increased costs of organic goat production by higher product prices, and certified organic goat products that are healthier than those conventionally produced. Economically, goat breeding in less developed countries and regions, very little arable land, forest and high mountain forests surrounding the village, is a form of instruction already made in accordance with the rules of organic animal breeding. First, organic livestock production is made at low cost in underdeveloped and developing countries with tropical and subtropical climate zones.

## **CONCLUSION**

It shall be mentioned the conditions for an efficient development of goat farming, and in particular the future role of experts and national or international institutions involved in the goat sector [14].

- At all stages, it must take place in a controlled and certified according to the laws of organic production [18,19].
- The promotion and protection of operational efficiency.
- Animal production, reproduction and breeding information to be recorded of all. Registered breeding animals are sold at a high price [20,21].

In organic livestock production, present and future planning of organic goat production must strongly be considered.

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