

## GUANO-BASED ORGANIC FERTILIZER PRODUCED BY GUANOMAD COMPANY IN MADAGASCAR

### Guanomad is an innovative manufacturing Company

specialized in the production and supply of organic fertilizers made from mineralized bat droppings found in Madagascar's caves.

### The properties of Guano

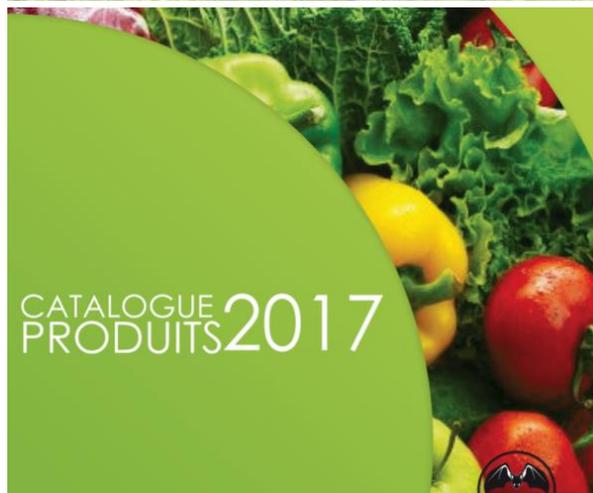
(from Quechua *wani*) as a highly effective fertilizer due to its exceptionally high content of nutrients essential for the plant growth are well known since the 19th-century in many countries. Today, Guano is also increasingly sought after by organic farmers.

In Madagascar the bat guano found in 120 caves of the country is being used by the farmers as a natural fertilizer on a small scale since the 1920s. The 44 bat species found in Madagascar provide the raw material used in fertilizer production. The droppings, mixed with the limestone form a rich mixture of huge potential. By allowing this substance to mineralize over a period of around 20 to 30 years, it comes to have incredible fertilizing properties. This natural mixture becomes rich in minerals, such as nitrogen, phosphorus, calcium and zinc, which are necessary ingredients for the healthy growth of plants.

The Guanomad Company has been created in 2006 by Erick Rajaonary in Antananarivo, capital city of Madagascar, taking into account the large quantities of guano and produced by bats and never managed to be extracted and the opportunity to make this extraordinary resource available to a wider number of farmers. In Madagascar where 75% of the population is living in rural zones and is depending on agriculture, the sector employs 85% of the active population but generates only 26% of the GDP.

Today the Guanomad Company produces approximately 11,000 tons of guano-based fertilizer annually. Madagascar is its primary marketplace and the guano is sold through 250 retailing points across the country, or on the international market.

As described [in the Guanomad website](#), the usage of guano-based products brings important benefits. In particular, due to its high content in primary nutrients,



organic matter and microbial flora, the versatile fertilizer can be used in optimized dosages for an all-out yield and manure. It improves soil structure and long-term aid agent for plant growth in horticulture and farming. It also increases the level of its microbial activity. It protects crops from fungi, rot and most usual diseases and ensures strong root development and a swift plant growth. It also improves taste, quality, colour and yield thrives in essential nutrients of the products.

Guanomad provides [different types of guano-based products](#), adapted to various types of agricultural needs:

- Guanasol, enriched with organic matters to optimize the soil and obtain a maximum of productivity.
- GuanoFerti-N, especially set up for the plant's vegetative growth, with the highly optimized nitrogen composition that stimulates the leaves production.
- Guanoferti-K, an organoleptic enhancer, fully organic, for fruits.
- Coque de Cacao, organic mulch for gardening.
- Tourteau de ricin, plant-based fertilizer with a repellent effect on soil-borne insect pests.

The Company is allowed to work in 120 caves with a rich reserve of 400,000 tonnes of guano, in close collaboration with the local communities and taking all the necessary steps to limit any damage caused to the bats' natural habitats by the mining operations. The company provides rebates to the communities situated close to the caves and employment to people living in these localities.

The guano extracted from the caves is taken to the production plant, where it is dried, mixed, crushed and formed into pellets. If they are going to be sold in stick-form, they are then dried again. If they will instead be sold in powder or pellet form, the material undergoes a thermal treatment, which is then re-cooled prior to being packaged and distributed.

The Guanomad Company has registered a great success in a few years and in 2010 obtained the Ecocert certification, which confirms the *organic nature* of the products. In 2013 Guanomad was recognized as *Small and Growing Business in Africa* by the [Africa Awards for Entrepreneurship](#), and the African Agricultural Fund entered the Guanomad capital for 5 years.

In the website of the World Intellectual Property Organization WIPO a [document on the Guanomad Company and impacting results achieved](#) is presented. In particular the article underlines the contribution of this company to the Madagascar Action Plan, a nation-wide program launched by the government in 2007 with goals that included establishing sustainable agriculture and food security via a *green revolution*.

The studies realized show that at the current rate of production, the 120 caves have enough bat droppings to supply the Company for more than 130 years and to supply the farmers with a strategic product for the transition to an organic agriculture that can generate wealth, good nutrition and a healthy environment.



**To know more**

[Guanomad.com website](#)

[Guanomad Catalogue](#)

[Guanomad in Facebook](#)

[Guano in Wikipedia](#)

[Document in WIPO website](#)

[Africaentrepreneurshipaward.com](#)

[Article in midi-madagasikara.mg](#)

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