

Almanac of the **Future**

A STORY OF SUCCESS

Motivational experience No. 17



The Worms of Mongui

PLANTA DE LOMBRICULTURA



THE WORMS OF MONGUI

The recycling of organic material from domestic waste through vermicomposting, conducted in an associative way, offers future-proof solutions in the environmental, social and economic field.

The first steps

Joaquín Dueñas lives with his wife Alicia and their four children in the village Duzgua, part of the Monguí Municipality, in Boyacá Colombia, a place until now known for the landscape beauty of its moorland and for the manufacture of plastic balls. But for the last two years, Monguí is being recognized for its humus production.

The initiative to produce organic manure began seven years ago. Approximately 20 neighboring families in the village be-

gan to use the manure of their dairy cows to produce humus. Small amounts of humus were produced and used as fertilizer of the crops of each family. Joaquín recalls that in one of the social gatherings on his farm (Joaquín and other neighbors like to play music together, sharing and enjoying), the idea of forming a producer's association was conceived and "Lombriduz" was born.

Garbage as raw material

The families used the humus produced at the beginning to fertilize their land, Joaquín and other members of the association took the task of increasing the production volume, therefore more waste material was needed. They started a dialogue with the government of the municipality, achieving a campaign, addressed to the citizens, for the separation of organic waste from the rest of the garbage. This initiative resulted in the fact that Lombriduz currently processes 4 tons of organic solid waste weekly, delivered by the garbage collector of the Municipality of Mongui, and recently the Municipality of El Cocoy started delivering 6 tons of organic waste weekly. In this way, the association has achieved a considerable volume of humus production, ten tons per month. Giving this situation the facilities for the vermiculture, which are mainly beds to deposit organic solid waste and a shed for drying, needed an expansion. The association unanimously decided to locate its "operations center" on Joaquín's farm.

Joaquín indicates that the association has the capacity to recycle through vermiculture up to 21 tons of organic solid waste. The group is seeking other municipalities to accept the introduction of household waste separation, separating organic solid waste and delivering them to the association.



Vermicomposting



Asociación de Prosumidores Agroecológicos
agrosolidaria

Agrosolidaria is a model of socioeconomic organization that integrates family agriculture and urban consumers. It works on the aspects of production, transformation, distribution and consumption of food and financing, seeking higher levels of social sustainability, relational justice and environmental equilibrium, within the philosophical principles of agroecology, solidarity economy and rural-urban fair trade (from the Institutional Triptych of Agrosolidaria)

Everybody wins

"We made no profit at the beginning," Joaquin says, "but now it has become lucrative". Joaquin, his wife Alicia and Felix, a co-worker, dedicate their time to the humus production. The association forms working groups for the reception of the raw material and the delivery of the humus as the volumes have exceeded the labor capacity of Joaquin's family.

The two older daughters of the family help with the humus sale. Of the approximately 10 tons of humus produced monthly, 15% is destined for the own use of the associated families for their crops, 5% is sold to the municipality of Mongui and the remaining 80% is sold to the public; the most important buyer is currently an association of large organic producers, an association similar to Lombriduz.

In addition to humus, the association also sells worm larvae. The leachate (liquid that filters from the beds of worms), mixed with bitter plants serves as foliar fertilizer and repellent for the quinoa crops. Alicia indicates that this repellent gives excellent results to avoid the swarms of flies over the processing area.

The 40 kg sack humus costs 16 thousand Colombian pesos (6 Dollars), one ton is sold for 220 dollars.

Greater welfare

The families that are part of the association are involved in agriculture and livestock for milk production, but have discovered new fields in recent years, such as the cultivation of quinoa and amaranth, and particularly the vermiculture, reaching diversification of their income sources.

“We made no profit at the beginning, but now it has become lucrative”, says Joaquin, who together with his wife and Felix, a coworker, dedicate time to the humus production.

From organic waste to humus.



Joaquín estimates the cost savings for the Mongui municipality:

“In the last 5 years, we have taken 1,230 tons of organic waste from the Mongui municipality. This allowed the municipal administration to save around 350 million pesos (125,000 dollars) since waste goes into reuse and does not have to be disposed. Instead of collaborating with anything, the authorities joke about selling us the waste”.



Amarant plantation

"Income increase allows families to pay for their children's education. This was not seen before. We also contribute to the production of clean food", says Joaquin.

Next steps

The manual labor is intensive: place the residues in the beds, cover them with manure, transfer the humus when still wet, dry and purify it, and finally pack it. The plan is to technify the humus production process to alleviate the physical work. At the same time, there is enough desire to encourage more families to join the association and venture into humus production.

Just as the family of Joaquín grows quinoa and amaranth, today more than 40 families also do it. It is an organic production where humus is the main fertilizer. The Lombriduz association gave the motivation for these families to be constituted in a group, affiliated to Agrosolidaria.

The goal is to process and add value

The marketing of the Quinoa is sometimes complicated: since the price paid is high and a certain boom exists, the intermediaries bargain the price, others do not enforce agreements. On the other hand, the intermediaries sell the organically produced quinoa at a double price to the processing industry, which mainly produces pasta and derivate products. There is no shortage of producers who, due to monetary needs, sell below the price band agreed by the association.

Given this panorama, the group has attended its parent organization, Agrosolidaria, where the idea of processing quinoa was jointly conceived. They own a mill, but the purchase of other machines, that demand a greater inves-

tment, is necessary. The initiative is promising since the examples of other Agrosolidaria partner groups have shown that the processing and production of quinoa derivatives gives satisfactory results. The group's plan is to produce their own quinoa derivatives to offer them both, in the ecological markets and through a web page.

Messages to the future

- The separation of solid organic waste generates a multiple win-win situation: less garbage and lower waste disposal costs while recycling and contributing to organic food production, with very favorable environmental and economic balances.
- Associative models allow to trigger friendly development: recycling and reuse, income generation, increase of well-being and diversification of production, commercialization and transformation.

The text, which is based on visits and discussions in situ, was created by Jorge Krekeler (Misereor adviser), but initially made consensual with the people visited. Special thanks go to Joaquín and Alicia Dueñas and Gloria Garavito of the Tibasosa section of Agrosolidaria.



Almanac to the Future

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