

TO HAVE BREAD, BRING MANURE



Who does not associate manure to fertility and production of food for humans or animals?

Slurry and manure of animals in general are indeed a formidable fertilizer. Not only it brings to soil nutrients for plants, but also increase fertility. In addition to being rich in nitrogen, phosphorus and potassium, macronutrients, faeces contain organic matter that improves the characteristics of the soil and create a condition more suitable for plant growth and the maintenance of biodiversity.



Who has manure is never hungry

When we consider the animals we breed to produce meat, milk and eggs, we do not always think that most of the feed are digested and assimilated, but then we find them in the manure.

Proteins are a component of the food that is essential for the growth of the animals. Proteins contain nitrogen, a key nutrient for plants. If we consider the nitrogen ingested with the proteins in an animal such as the pig, only one third is used for the growth. The remainder is excreted in faeces and urine.



Closing the cycle

Nutrients are valuable and vital resources.

From an economic point of view, it is therefore appropriate to combine the application of nutrients to the needs of crops, thus limiting as much as possible the risk of losses. This in turn may limit the additional costs for farmers (for example, the fuel of the tractor, use of equipment, labor, etc.). The loss of nutrients may create other costs for the farmer; for example, to supplement the nutrients lost and meet the needs of the plants are necessary higher amounts of mineral fertilizer. Avoid environmental impacts that may result from the loss of nutrients provides benefits for farms, such as maintaining soil health and fertility and crop yields.

Manure is a resource. We must use it well!

And when is too much?

Nitrogen, phosphorus and potassium are essential for agricultural production. However, if these nutrients are not absorbed by plants, they run the risk of getting lost in various ways, resulting in unnecessary costs to the farm. Finding the right amount required by the plants and optimizing the time and the application of nutrients to meet these requirements can result in an economic gain and a positive effect on human health and the environment, including soil health and fertility. If released into the environment can cause damage to the environment and contributing to the eutrophication of water pollution by nitrates. If not managed properly effluents emit large amounts of ammonia, one of the gases that cause the rains acid and form, with other substances, particulate matter.



1. Tests to assess the emissions from manure during storage after different treatments.
2. Studies of new measurement methods based on the optical properties to detect the content in fertilizers.
3. Testing new systems of effluent treatment for the reduction of nitrogen surplus.
4. The use of appropriate equipment allows the best use of effluents and reduce emissions.

