*Perspective*

# The importance of animal manure in agriculture: Benefits and its key factors

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## DESCRIPTION

Animal manure has been used as a fertilizer for centuries. It is a natural and effective way to enrich soil with nutrients that plants need to grow. Manure from cows, pigs, horses, and other livestock contains a range of nutrients, including nitrogen, phosphorus, and potassium. These nutrients are essential for plant growth and can help to improve the overall health of the garden or farm.

The benefits of using animal manure as a fertilizer are numerous. First, it is an inexpensive way to improve soil fertility. Manure can be obtained for free or at a very low cost from nearby farms or livestock owners. Additionally, it is a sustainable option as it allows for the recycling of nutrients that would otherwise be lost as waste.

Another advantage of using animal manure is that it improves soil structure. Manure contains organic matter, which helps to improve soil structure by increasing its water-holding capacity, aeration, and drainage. This can be especially beneficial for soils that are sandy or clay-based and have poor structure.

Animal manure can also help to suppress plant diseases and pests. The beneficial microbes found in manure can help to suppress harmful pathogens that cause plant diseases. Additionally, manure can attract beneficial insects and worms that can help to control pests and improve soil health. Despite its many benefits, there are some potential drawbacks to using animal manure as a fertilizer.

One concern is the risk of spreading pathogens that can cause disease in humans or animals. To reduce this risk, it is important to handle manure carefully and follow proper sanitation procedures.

Additionally, it is important to avoid using fresh manure on crops that will be eaten raw, as it can contain harmful bacteria.

Another potential drawback is the risk of over-applying nutrients. If too much manure is applied, it can lead to an excess of nutrients that can pollute nearby water sources. This can be especially problematic in areas with high levels of rainfall, as nutrients can leach into groundwater or run off into nearby streams and rivers.

In conclusion, animal manure can be a highly effective and sustainable fertilizer for the garden or farm. It provides essential nutrients, improves soil structure, and can help to suppress plant diseases and pests. However, it is important to handle manure carefully and avoid over-applying nutrients to prevent the spread of pathogens and water pollution. With proper management, animal manure can be an excellent choice for those looking to improve soil fertility and promote sustainable agriculture practices.

It is well known that animal dung is a possible source of a wide range of infectious organisms that can infect humans either directly or indirectly, most often through the ingestion of tainted food or water. Although state laws and recommendations are available to help farmers handle and manage animal dung heaps and storage, they primarily focus on engineering and nutrient management, with some recent attention being paid to air-quality impacts rather than pathogen concerns. Treatment for confined animal production, as opposed to grazed or pastured animal production, often entails first collecting and removing manure-urine (slurry) from the animal housing units, followed by storage in lagoons and then spraying over fields.

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