



The use of livestock waste to enhance soil and lower environmental impact

Estimated reading time: 10 minute(s)

Intensification of domesticated animals to maximize production is a common trend around the world to sustain the rise in population.

However, livestock waste remains a subject under discussion due to emission of pollutants onto the environment.

Therefore, what can be done to address this concern? What mitigation strategies can be employed to address production waste from intensive systems?

Hence, this brings us to today's edition that focuses on **the use of livestock waste in a sustainable way and yields an advantage to a farmer.**

Livestock waste, commonly referred to as manure, is defined as a natural by-product of livestock production and an excellent source of plant nutrients.

Manure decomposes easily and releases nutrients such as nitrogen,



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potassium, sulphur and phosphorus into the soil.

Commonly used animals sources of manure:

1. Cattle
2. Pigs
3. Chicken
4. Goats
5. Sheep
6. Elephant

What are the uses of livestock waste?

- **Production of [vermicompost](#)**

Earthworms consume animal waste and excrete little pelleted material called [vermicompost](#). Nutrients present are converted into soluble form that are utilized by plants for growth and contribute to the improvement of soil organic matter.

Vermicompost fertilizer application on cultivated veld **results in great yields on vegetation growth** (tomatoes, onions etc.). Production companies make pelleted manures that are commercially sold. Therefore, ideal application time is provided, to avoid excess nutrients leaching into the soil, surface runoff and subsequently disturbing water systems.



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- **Production of larvae/worms**

As a way of **curbing high feed costs** in production (poultry), farmers use manure as a **substrate for larvae growth**. Different fly species are bred to produce these larvae that have a high protein content to chickens. Larva fed to chickens are mostly used as a complement to the daily rations.

Furthermore, earthworms can also be used as feed for fish and baits when fishing.

- **Production of biogas**

Anaerobic digestion is a process that breaks down complex organic wastes (methane, carbon dioxide) and produces biogas. As production of livestock increases, so does livestock waste, **hence making biogas a renewable source of energy**. Biogas can be used as a **source of electricity for cooking** or lighting in homes and industries. **Biogas is regarded as the future renewable energy** that can be used sustainably.

- **Employment creation**

On a broader scale, sustainable use of production waste creates employment. Fertilizer companies have adopted and promote use of **organic fertilizers to suppress land degradation**.

- **Education**

Sustainable use of different manures can be taught in schools and farming communities as it enhances knowledge. Therefore, production waste can be used to cultivate various crops.



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Did you know?

- **Guano** is the amassed excrement of seabirds and bats. It can be used as a **natural fungicide** and **controls nematodes** in the soil.
- Elephant dung consists of plants and leaves, which hold most of the foliage that are beneficial to humans. Inhaling smoke of the dung is believed to heal headache and suppress **pain**.

To sum it all up, conversion of manure into different forms in agriculture, yields a competitive advantage to farming communities as it improves soil fertility and provides employment. This ultimately sustains livelihood.

References

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