

SEMETELLA

Good Practice Collection



Introduction

Semetella is an agricultural project that promotes biodiversity, cultivating ancient varieties of vegetables and fruit according to the principles of organic and regenerative agriculture. Their fields are living ecosystems, where plants, insects and wild herbs coexist in harmony, contributing to soil health. Self-production of seeds is central to preserving local varieties and improving their environmental adaptability. To protect crops without resorting to chemicals, they use natural macerates of nettle and horsetail, exploiting their anti-parasitic and fungicidal properties. They encourage synergy between crops to ward off harmful insects and improve product quality, while maintaining the natural balance of the ecosystem. Through sustainable techniques, they regenerate the soil without impoverishing it, guaranteeing healthy products with an authentic flavour. Their work is based on respect for the land and the enhancement of traditional farming practices, integrated with innovative methods. Semetella represents a model of conscious agriculture that preserves the land and promotes biodiversity, offering genuine, high-quality food in full respect of nature.

The Farm

From the very beginning, the farm has chosen to adopt a sustainable approach, certifying its organic production not to follow a fashion, but to ensure maximum respect for natural cycles. Here, the land is the absolute protagonist, and any human intervention is reduced to a minimum to preserve its fertility and biodiversity. Their vegetable garden is deliberately “messy”, populated by wild plant species that not only indicate the health of the soil, but are often also edible and rich in nutritional properties.

The basis of their farming philosophy is earthworm humus, an extraordinary natural fertilizer that is at the heart of soil regeneration. Furthermore, the company only uses manure and compost as fertilizers, applying organic, biodynamic and regenerative farming principles. In this way, the earth maintains its vitality, guaranteeing genuine products rich in flavor.

The Location

The Semetella farm is in Nocera Scalo, a hamlet of Nocera Umbra, in the province of Perugia, Umbria. This area is characterized by a hilly landscape typical of the Umbria-Marches Apennines, with gentle slopes covered with woods, olive groves and cultivated fields. Nocera Umbra, known as the “City of Waters” for the presence of numerous natural springs with therapeutic properties, is located on a rocky spur dominating the upper valley of the Topino River. The surrounding area offers suggestive views, with lush and unspoilt nature, ideal for outdoor activities such as trekking and walking.

Nocera Umbra is strategically located in Umbria, offering easy access to several towns and villages of historical and cultural interest: Valtopina: about 7 km, Assisi: about 19 km, Perugia: about 45 km.

Agricultural regeneration objectives

The Semtella company has adopted a regenerative farming approach using earthworms, which transform decomposing organic matter into nutrient-rich compost, improving the soil structure and making it softer, more fertile and able to retain moisture. This natural process eliminates the need for chemical fertilisers, pesticides or other artificial interventions, allowing plants to grow strong and healthy, in perfect harmony with the environment.

In addition to earthworm humus, every choice is dictated by the desire to create a balanced ecosystem where soil life thrives and regenerates naturally. Earthworms, true allies of soil fertility, work silently but tirelessly, contributing to an agriculture that nourishes not only those who practice it, but also those who benefit from it through healthy, authentic food.

Vermiculture is nothing more than the raising of earthworms on organic waste. The product is an important organic fertiliser, the so-called vermicompost.



Best Practice Focus

Compost produced by earthworms, known as earthworm humus or worm compost, is an essential practice to improve soil fertility naturally. By digging tunnels in the soil, earthworms promote its aeration and structure; while ingesting decomposing organic matter, they transform it into simpler compounds. The expelled material, called "cast", undergoes an enzymatic process thanks to soil microorganisms, becoming a nutrient-rich fertiliser immediately available to plants.

Unlike chemical fertilisers, humus is ready to be assimilated and has an optimal carbon/nitrogen ratio, ensuring a balanced supply of nutrients such as nitrogen, phosphorous and iron. In addition, its porous structure improves water retention and soil drainage, creating ideal conditions for plant growth.

Besides nourishing, vermicompost regenerates the soil, increasing its vitality and biodiversity without the need for artificial intervention. This sustainable technique allows vegetables and fruit plants to be grown healthily and naturally, guaranteeing quality production and reducing environmental impact.



Financial aspects of regenerative measure implementation

Despite its many benefits, the vermicomposting industry faces several challenges. The need for careful selection of organic matrices, earthworm management and maintenance of optimal vermicomposting conditions require expertise and resources. In addition, awareness and adoption of vermicomposting is still limited in some regions, requiring continuous awareness-raising and education efforts.

Initial investment: To start a vermicomposting business for income, an initial investment of about 9,000 euros is estimated, covering the rent of the land, the purchase of equipment and earthworms. If you already own land, the costs can be reduced.

Purchase of earthworms: For a small plant, the purchase of earthworms can vary between 1,000 and 3,000 euros. For example, a 10-square-metre earthworm plant, complete with 40 kg of *Eisenia Foetida*/Andrei earthworms, costs around 1,860 euro



Main Slogan

‘With the help of earthworms, the earth is reborn: rich humus, fertile fields, nature in balance.’

Categorisation, keywords

This practice of regenerative agriculture falls under the Soil Management Macro Area (crop and soil) in the category FERTILISATION/NUTRIENT MANAGEMENT/ADDITION OF ORGANIC MATTER with the following subcategorisation: COMPOST (Addition of organic matter).

worms; compost; natural nutrients; hummus; healthy soil; lumbiculture; addition of organic matter; compost worms; environmental sustainability; soil ecology; earthworm ecology

Advantages and disadvantages

Advantages	Improved soil fertility: Vermicompost is rich in essential nutrients such as nitrogen, phosphorus and potassium, as well as beneficial microorganisms that promote plant growth.
	Optimised soil structure: The use of vermicompost improves the soil's ability to retain water, increases aeration and drainage, and creates a favourable environment for root development.
	Environmental sustainability: Vermicomposting helps reduce organic waste going to landfill, turning it into a useful product for agriculture, and decreases the need for chemical fertilisers.
Disadvantages	Initial costs and maintenance: The implementation of a vermicomposting system requires an initial investment for the purchase of equipment and earthworms, as well as careful management to maintain optimal environmental conditions.
	Production time: The vermicomposting process can take several months to produce mature compost, depending on environmental conditions and system management.
	Sensitivity to environmental conditions: Earthworms require specific conditions of temperature, humidity and pH; significant variations can adversely affect their activity and the quality of the compost produced.



Learning points

Knowledge	Soil ecology and the role of earthworms: Understanding the decomposition cycle of organic matter and the fundamental role of earthworms in improving soil fertility.
	Compost chemistry and microbiology: Learn about the chemical and biological processes that transform organic waste into nutrient-rich humus and the importance of beneficial microorganisms.
	Environmental management of composting: Learning the ideal conditions (temperature, humidity, pH) to ensure effective earthworm activity and optimal vermicompost production.
Skills	System management and monitoring skills: Know how to control and adjust environmental parameters to ensure an efficient process and high quality production.
	Optimisation of organic resources: Select and prepare waste materials correctly to maximise vermicomposting yield.
	Agricultural application of vermicompost: Use the compost produced effectively to improve soil health and crop yields by integrating it with other sustainable agricultural practices.

References/Bibliography

- <https://agronotizie.imagelinenetwork.com/fertilizzazione/2021/01/26/il-vermicompostaggio-che-cos-e-e-come-funziona/69134>
- <https://www.ortodacoltivare.it/terra-orto/humus.html>
- <https://www.biotica.bio/blog>
- <https://www.umbriatourism.it>

Contact details

<https://semetella.it/it/>
Telefono: +39 3458 39 9953
info@semetella.it
Fraz. Nocera Scalo 1
06025 Nocera Umbra
Perugia



Regenerative Agricultural Practices for Environmental Rejuvenation and Sustainable Ecosystems on European Farms



Associazione
Sviluppo Rurale

enprojects



Asociace
soukromého
zemědělství ČR

www.regenerateproject.eu



Project number: 2024-1-CZ01-KA220-VET-000254669

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.



Co-funded by
the European Union

