

BEYOND ORGANIC: EXPLORING THE ENVIRONMENTAL AND ETHICAL BENEFITS OF VEGANIC AGRICULTURE

Pavithra G¹, D Ajith², S Sakthivel^{1*} and V Kalaimathi¹

¹Ph.D. Scholar, Department of Agronomy, Tamil Nadu Agricultural University, Coimbatore. ²Senior Research Fellow, Tamil Nadu Agricultural University, Coimbatore ***e-mail:** sakthivelsivakumar888@gmail.com

INTRODUCTION

The interest in sustainable alternatives to industrial, chemical-based agriculture and the associated environmental and social consequences is growing. While organic, agroecological, and regenerative approaches are frequently discussed, they exhibit distinct differences. However, a common thread among these paradigms is their reliance on farmed animals, animal manures, and related products. Unfortunately, these models may not be feasible for all farmers. Financial constraints or geographic limitations can make animal agriculture challenging. Additionally, some farmers reject the idea of incorporating farmed animals or their waste into their agricultural systems. This sustainable, lowimpact approach avoids reliance on animal inputs, making it an appealing choice for those seeking а more compassionate and environmentally amiable farming approach.

WHAT VEGANIC AGRICULTURE IS?

Veganic agriculture, which is also referred to as vegan organic agriculture, is a sustainable farming strategy that places an emphasis on producing crops and food without exploiting animal products. It avoids any animal-origin materials such as bloodmeal, fish products, bone meal, or feces. The fundamental concepts of vegan farming are to separate plant-based production of food from animal agriculture, resulting in an

ecologically conscious strategy that does not involve cruelty to animals. Veganic farmers emphasise ease and efficient use of resources, which makes agriculture less detrimental to environment. They the do this by implementing solely plant-based cultivation techniques. The rationale behind this approach is twofold:

• Animal Welfare: Veganic farming aims to minimize harm to animals directly or indirectly. By excluding animal-derived materials, it avoids contributing to the exploitation and suffering of animals.

• **Ethical Stance**: Many vegans find the sale of animal by-products unacceptable, as it supports the animal husbandry industry.

CORE PRINCIPLES OF VEGANIC FARMING

- Engaging in soil stewardship
- Preserving the diversity of free-living animals
- · Advocating for local plant-based fertility
- Reducing external inputs to a minimum

HISTORY OF VEGANIC FARMING

Veganic farming, often misunderstood as impractical, has ancient roots, seen in the agricultural practices of the Maya (Mesoamerican communities). Modern veganism, originating in the 1940s, expanded to reject animal exploitation, but discussions on animal exploitation in food production lagged. Vegan farming attained momentum in the 1990s, assisted along by noteworthy organisations like the UK's Vegan Organic Network along with North America's Veganic Agriculture Network. In 2017, the Biocyclic Vegan Standards were established, focusing on creating a sustainable, closed-loop system returning nutrients to the soil.

HOW VEGANIC FARMING WORKS?

Veganic farmers employ various strategies to maintain soil health, such as keeping the soil consistently covered with crops, mulch, or use of green manure to hinder the flow of vital nutrients and topsoil depletion. They also implement crop rotation to introduce plants with different purposes, like nitrogen fixation or nutrient enrichment. Unlike conventional farming that relies on inputs from domesticated animals, veganic farming encourages the presence of free-living animals by preserving habitats like trees, ponds, and hedgerows. These animals play a crucial role in pollination and contribute to the overall health and diversity of the ecosystem on the veganic farm. In their quest for fertility, veganic farmers prioritize local sources, producing mulch and wood chips on-site and locally sourcing biomass and plant meal. Depending on the location, they may utilize various materials, ranging from locally sourced seaweed to spent hops from nearby breweries. Green manures, plants grown and incorporated into the soil before seeding, are employed to enhance soil nutrient content, with a focus on nitrogen-fixing plants like legumes. While veganic farmers may use imported mineral supplements, when necessary, particularly in areas with depleted soil, their overarching objective is to rely on onfarm products as much as possible. This approach minimizes transportation costs and avoids depleting resources from external locations.

VEGANIC AGRICULTURE NETWORK (VAN)

The Veganic Agriculture Network was established in 2008, has endeavoured to foster environmentally conscious based on plants gardening and farming approaches. lt encourages the cultivation of fruits, vegetables, legumes, and cereals without the use of artificial substances or animal products. This movement plays a crucial role in shifting away from animal-based agriculture towards environmentally more friendly and compassionate food systems. One key aspect of veganic agriculture is its plant-based approach, which eliminates the reliance on animal inputs such as manure, simplifying the farming process. This approach proves to be more resource-efficient compared to traditional animal agriculture, minimizing environmental impact while producing wholesome food. The Learn Veganic gardening course, covering essential topics for both gardeners and farmers, offers valuable insights into growing thriving vegetable gardens using entirely plant-based fertilizers. The next session begins on February 7th, 2024, and registration is open. In addition, expertise in vegan farming and gardening were spotlighted at the inaugural Veganic Summit, which was hosted on November 10 and 12, offering a venue for dissemination of knowledge.

BENEFITS OF VEGANIC AGRICULTURE

Veganic farming encompasses a holistic approach to agriculture, prioritizing environmental sustainability by eliminating synthetic chemicals and insecticides, thereby decreasing pollution of the soil and water. With a commitment to the ethical treatment of animals, veganic practices align with the principles of a plant-based lifestyle. Focusing on soil health through plant-based compost and organic techniques, veganic farmers promote resilient soil ecosystems and enhance biodiversity conservation by avoiding the negative impacts of intensive animal farming and synthetic chemicals. The health benefits extend to potentially lower pesticide residues in and nutrient-dense produce, crops human well-being. positively impacting Moreover, veganic farming's emphasis on sustainable and resilient agricultural practices positions it as a contributor to climate change mitigation in food production. By practicing on a smaller scale, veganic farming supports localized and sustainable food systems, fostering community-based agriculture and reducing the transportation-related carbon footprint.

CHALLENGES OF VEGANIC FARMING

Critics of veganic farming argue that animals play a vital role in rapidly processing plant material and enriching the soil through their manure. While relying solely on plant decomposition does return nutrients to the soil, this process is slower and presents challenges in soil fertility management. Veganic farming is labour-intensive, as creating plant-based mulches and composts requires more human effort compared to traditional methods involving animal grazing and excretion. Additionally, pest management within a veganic framework poses both logistical and ethical dilemmas. During its early stages, veganic farming can be likened to where organic farming stood 30 to 50 years ago. The veganic community, particularly in North America, remains relatively small, and resources for aspiring veganic farmers are limited. This scarcity complicates the entry of new farmers into the industry or the transition to veganic practices.

Veganic farming, though relatively new, faces challenges in North America, with limited educational resources and few farms. Currently, there's no US-based certification for veganic farms, hindering regional collaboration and knowledge-sharing. Establishing a US certification or adopting an international one would mark a significant advancement. Despite these obstacles, the future for veganic farming looks promising. Criticisms of factory farming for its environmental impact and animal welfare issues, coupled with the rise of plant-based alternatives, signal a shift. As concerns about resource use and human-animal transmission of diseases increase, the demand for veganic agriculture may grow. Embracing plant-based methods now could be pivotal for future food production sustainability.

CONCLUSION

A trustworthy and environmentally approach conscious to farming is demonstrated in vegan farming. It diverges from conventional methods by eschewing animal-derived inputs like manure and bone meal. Instead, it prioritizes plant-based sources for soil enrichment. The overarching goal is to minimize harm to animals, reduce environmental impact, and cultivate healthier, more humane food production. Environmental and ethical advantages abound in veganic farming. By relying solely on plant-based inputs, it addresses animal welfare concerns and diminishes the ecological footprint associated with traditional farming practices. Moreover, veganic farming nurtures soil health and fosters biodiversity, contributing to longterm sustainability. While challenges such as nutrient management and the initial transition

persist, ongoing research and innovation in veganic agriculture hold promise for its further development and widespread adoption as a viable and sustainable farming practice.