## Abstract

## **Ecological Strawberry Production: Promoting Crop Vitality with High-Dynamized Dilutions**

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## Abstract

The Strawberry (*Fragaria* × ananassa Duch.) is the world's most important berry. Around 9.2 million tonnes of strawberries were produced worldwide in 2021 over approximately 395,844 hectares distributed across almost all continents. However, industrial farming approaches, which include the application of high volumes of pesticides, have placed the fruit on the list of foods most contaminated by pesticide residues. Such management negatively affects food security and environmental sustainability. Agroecology is proposed as a holistic alternative to solve this problem, and within this, some practices associated with homeopathy and biodynamic farming involve the application of highdynamized dilutions as alternatives to chemical pesticides. Research indicates that the use of highdynamized dilutions holds the potential to promote crop vitality through building natural equilibrium and resilience of agricultural systems. The objective of this research was to explore the extent to which high-dynamized dilutions can increase the sustainability of commercial strawberry production as well as understand the challenges and benefits of using high-dynamized dilutions in agriculture. To do this, natural and social science methods are combined in a multidisciplinary approach that was developed simultaneously in Brazil and the UK. Results of controlled trials demonstrated that the use of high-dynamized dilutions of *Phosphorus* 12CH, *Sulphur* 12 CH, and *Kali* Carbonicum 12CH positively influenced crop production, pest disease levels, and plant vigor in strawberry plants. In addition, data collected from a web survey and interviews with farmers, researchers, and advisors who work with homeopathy, evidenced the role of homeopathy and biodynamic farming as transformative tools regarding ecological awareness and ecological education, helping to advance the concept of the agriculture organism and subtle aspects of life into agricultural research and society.

**Keywords:** Fragaria × Ananassa duch; High-Dynamized Dilutions; Homeopathy; Agroecology; Multidisciplinarity

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