

Pesticide: A Contemporary Cultural Object

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Contributor: Elena Fusar Poli , Michele Filippo Fontefrancesco

The article provides a narrative review of the social and cultural interpretation of pesticides in contemporary society. In so doing, it highlights the main fields of exploration investigated by social scientists concerning the perception and role played by these products among farmers and consumers. Following the WHO definition, pesticides are chemical compounds used to kill pests, including insects, rodents, fungi, and unwanted plants. They are contemporary cultural artefacts that social sciences explore in synergy with other disciplines to highlight their socio-cultural connections at both local and global levels. Specifically, the use of these products is connected with power relations, which are embedded in and reflect imbalances and inequalities in access to rights and resources, as well as specific articulation of the perception of risk arising from environmental contamination in terms of individual and collective psychophysical health. Furthermore, pesticides fit into various environmental conceptions and multiple local knowledge systems, representing the intersection of different cultural heritages, worldviews, and rationales that make the tradition–modernity dichotomy complex and dynamic. In this respect, therefore, pesticides can be understood not just as mere tools for agricultural practice but as vital windows through which to investigate multiple layers of meaning to support transitions towards sustainable pest management systems, both environmentally and socio-culturally.

pesticides

anthropology

perception

risk

environmental knowledge

Following the WHO definition, pesticides include numerous groups of specific products, such as insecticides, fungicides, herbicides, garden chemicals, household disinfectants, and rodenticides, which are utilized for both pest destruction and protection ^[1]. Over one thousand different pesticides are used around the world. They are commonly categorized as synthetic pesticides when they are based on human-made chemicals that do not exist in nature, or biopesticides, which are naturally occurring or derived materials, especially from living organisms such as plants, fungi, and bacteria ^[2].

Considering their prominence and widespread use, the study of pesticides has been approached by different disciplines, such as chemistry, agronomy, economics, and medicine, in order better to develop new products and assess their effects. The case of Scottish barley cultivation proposed by Stetkiewicz and colleagues is emblematic in this regard because the integrated pest management (a practical and eco-conscious method for controlling pests, which utilizes a blend of different and synergic techniques) they analyze was developed through different disciplinary lenses to achieve a more holistic view of crop care and pesticide use ^[3]. More recently, pesticides have been at the center of the debate in social sciences, specifically in anthropology, which has explored their stance as cultural objects fully integrated into the web of political, economic, emotional, and heuristic relationships. At the heart of this inquiry lies the profound impact of pesticides on natural ecosystems and human health, raising critical concerns about their widespread use ^[4]. Scholars have scrutinized the diverse perceptions and narratives

constructed around pesticides, alongside the hopes and intentions guiding their application [5]. In so doing, the geographic and social imprints of agricultural methods were uncovered, revealing how they intertwine with local forms of social organization and collective histories rooted in specific landscapes, as Abate and colleagues present by referring, for example, to the African context [6]. The emerging gendered dimensions of pesticide usage shed light on the nuanced social dynamics at play, specifically on the complex power dynamics and structural violence inherent in their deployment, and the myriad strategies employed by communities to mitigate the adverse effects of pesticides [7].

Following and unfolding this debate, this article aims to present the main results of the discussion, providing a comprehensive outline of the cultural reality of pesticides in contemporary society. In so doing, the article opens by presenting the methodology and sources used for the literature review, moving to present the key areas where the debate has its focus. These will be discussed with the support of the exploration of an ethnographic case study.

References

1. WHO. Chemical Safety: Pesticides. Available online: <https://www.who.int/news-room/questions-and-answers/item/chemical-safety-pesticides> (accessed on 1 February 2024).
2. EPA. What Are Biopesticides? Available online: <https://www.epa.gov/ingredients-used-pesticide-products/what-are-biopesticides> (accessed on 20 February 2024).
3. Stetkiewicz, S.; Bruce, A.; Burnett, F.J.; Ennos, R.A.; Topp, C.F.E. An Interdisciplinary Method for Assessing IPM Potential: Case Study in Scottish Spring Barley. *CABI Agric. Biosci.* 2022, 3, 23.
4. Bernardes, M.F.F.; Pazin, M.; Pereira, L.C.; Dorta, D.J. Impact of Pesticides on Environmental and Human Health. In *Toxicology Studies—Cells, Drugs and Environment*; Andreazza, A.C., Scola, G., Eds.; InTech: Rijeka, Croatia, 2015; ISBN 978-953-51-2140-4.
5. De Boon, A.; Sandström, C.; Rose, D.C. Perceived Legitimacy of Agricultural Transitions and Implications for Governance. *Lessons Learned from England's Post-Brexit Agricultural Transition. Land Use Policy* 2022, 116, 106067.
6. Abate, T.; Van Huis, A.; Ampofo, J.K.O. Pest Management Strategies in Traditional Agriculture: An African Perspective. *Annu. Rev. Entomol.* 2000, 45, 631–659.
7. Mansfield, B.; Werner, M.; Berndt, C.; Shattuck, A.; Galt, R.; Williams, B.; Argüelles, L.; Barri, F.R.; Ishii, M.; Kunin, J.; et al. *A New Critical Social Science Research Agenda on Pesticides. In Agriculture and Human Values*; Springer: Berlin/Heidelberg, Germany, 2023.

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