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# Cost of Inaction: The Economic and Environmental Implications of Solenopsis Invicta Invasion in the European Union

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## Extended Abstract

The red fire ant (Solenopsis invicta), native to South America, poses a serious threat to agriculture in the European Union (EU). Confirmed in Sicily in 2022, this invasive species causes significant ecological and economic damage, particularly to crops. This study uses cost-benefit analysis (CBA) to evaluate three management strategies: no intervention, moderate surveillance (16.2% of vulnerable areas) and treatment, and intensive surveillance (35.4%) and treatment. The results show that inaction, while cost-effective in the short term, leads to substantial long-term losses, especially for high-value crops like citrus fruits and potatoes. In contrast, preventive strategies, particularly intensive measures, effectively reduce economic and environmental impacts. Delaying the implementation of these measures by one or two years results in costs two to three times higher, emphasising the urgency for immediate action. Climate projections suggest that by 2070, up to 29% of the EU's territory may become suitable for establishing Solenopsis invicta. This potential expansion highlights the critical need for enhanced cooperation among Member States to coordinate and fund prevention and control efforts.

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