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REPORT

A Common Pesticide Decreases Foraging Success and Survival in Honey Bees

[Mickaël Henry^{1,2,*}](#), [Maxime Béguin^{2,3}](#), [Fabrice Requier^{4,5}](#), [Orianne Rollin^{2,6}](#), [Jean-François Odoux⁵](#), [Pierrick Aupinel⁵](#), [Jean Aptel^{1,2}](#), [Sylvie Tchamitchian^{1,2}](#), [Axel Decourtye^{2,6}](#)
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ABSTRACT

Nonlethal exposure of honey bees to thiamethoxam (neonicotinoid systemic pesticide) causes

high mortality due to homing failure at levels that could put a colony at risk of collapse. Simulated exposure events on free-ranging foragers labeled with a radio-frequency identification tag suggest that homing is impaired by thiamethoxam intoxication. These experiments offer new insights into the consequences of common neonicotinoid pesticides used worldwide.

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