

Persistence of Endosulfan in Kasaragod Soils and Its Health Implications

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From 1978 to 2001, endosulfan was aerially sprayed over cashew plantations in Kasaragod, Kerala to control tea mosquito bugs. After people started reporting health issues, spraying stopped and India banned the pesticide in 2011.

Despite the ban, residues are still found in the soil. Understanding how long endosulfan persists, how exposure happened, and what health effects followed helps to explain why this case matters.

Studies have shown endosulfan can remain in soil for one and a half to two years, depending on soil acidity, organic matter, and clay. The breakdown product, endosulfan sulphate, is more persistent and lasts even longer than the parent compound, which is why traces kept showing up years later. Because plantations were on hilltops, rain washed contamination into valleys where people lived. Blood tests in 2001 found around 85% of women and 78% of men in affected villages had endosulfan in their blood, versus about 30% elsewhere. Health surveys showed girls had more congenital abnormalities, boys had delayed sexual development, and learning disabilities were more common overall. Over six thousand people are registered as victims.

Kasaragod shows that banning a pesticide isn't the end. The chemical persisted, kept reaching people, and health effects are still being counted. Long-term monitoring of affected communities is still needed.

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