

ARS Unlocks Nature's Secrets to Pest Control

When bugged by insects that sting, bite, or ruin your garden, it's tempting to go out and purchase common synthetic pesticides to remediate. As an alternative, ARS scientists at the National Center for Agricultural Utilization Research in Peoria, IL, have found that many natural compounds may serve as promising alternatives to chemical-based cohorts when it comes to pest control.

ARS researchers found that cedarwood oil kills houseflies, ticks, and mosquitoes; repels several species of ants, including two types of fire ants; and is a natural wood preservative that deters termites and wood-decay fungi.

In another project, scientists converted two fatty acids from the seed oil of the purple-flowered annual known as cuphea into a repellent that works as well as DEET, the most common active ingredient in insect repellents.



Further ARS research found that essential oils in Italian honeysuckle killed 100 percent of mosquito larvae, opening the door to its potential as a biopesticide that can be safely applied to ponds, drainage ditches, stormwater catch basins, and other areas of standing water that serve as mosquito breeding sites.

Taken together, these ARS findings could be just the elixir needed to enjoy the outdoors once again by using natural compounds for pest control without adding harmful chemicals to the environment.



USDA is an equal opportunity provider, employer, and lender.