

# Azadirachtin

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Azadirachtin is a naturally occurring chemical found in the seeds of the neem tree *Azadirachta indica*, A. Juss (Sapindales: Meliaceae). Humans have been using it as an insecticide for many years. It does not have an Insecticide Resistance Action Committee number because the mode of action is not known.

Azadirachtin is an anti-feedant. It stops some insects from eating and interferes with egg laying, molting, and mating of some insects, resulting in death. It repels adults and larvae and sterilizes adults. After eating azadirachtin insects may not die for two to seven days. The insect may have a life process interrupted or starve to death. It is systemic and a stomach poison. The systemic activity is less when the pH is greater than 7, and it exhibits low water solubility. This chemical shows activity on gnats, whiteflies, flies, aphids, Japanese beetles, moth larvae, caterpillars, thrips, mealybugs, and mites. The residual activity is seven to 10 days.

Azadirachtin is safe for predators, parasites, and pollinators, but it would be toxic to butterfly and moth larvae eating the leaves. It is not rainfast and should be applied on dry days. This chemical is considered organic. The activity of azadirachtin is best when temperatures are above 70 degrees Fahrenheit