

Hexa-Hydroxyl® The Active Ingredient

By EPA definition, the chemicals in a product that are used to control a specific pest are referred to as the 'active ingredient'. EcoSMART discovered new "active" ingredients that have reliable killing power with the benefits of natural botanical insecticides.

EcoSMART began evaluating different plant oils to determine if they had insecticidal activity. It was determined that all the insecticidally active oils shared a common molecular structure.

EcoSMART researchers then determined that by combining a variety of these plant oils, they could enhance their activity against insects and other pests, including weeds. EcoSMART has been issued multiple patents covering this technology. These new active ingredients are so revolutionary, they have gained the interest and endorsement of prominent entomologists throughout the world.

These plant oil blends kill insects by blocking specific neural pathways that don't exist within mammals. University research has shown that these oils attack the Octopamine neuro-receptors. Octopamine is a key insect neurotransmitter that regulates heart rate, insect movement, behavior and metabolism. The blockage of the receptor activity prevents the transmission of the Octopamine signals, which leads to certain characteristic signs of toxicity such as excitation, hyperextension in the hind legs and abdomen, followed by immobilization and/or knockdown, followed by death. The Octopamine receptors are non-mammalian target proteins.

