Center for Integrated Pest Management (CIPM)

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Novel Insect Repellent

CIPM researchers have developed a novel insect repellent from a compound found naturally in certain types of tomato plants. As an EPA category 4 compound, the new repellent is regarded as potentially safer than DEET, which is an EPA category 3 compound. The novel compound, which is safe enough to be approved as a food additive, may help meet consumer demand for an alternative to DEET as an insect repellent. The invention received national media coverage during the summer of 2003. It has received a U.S. patent and has been licensed to a private company. For more information, contact R. Michael Roe, 919.515.4325.

Molecular Transfer System as Insecticide

CIPM has developed a molecular transfer system for proteins, nucleic acids, and small molecules that might be used as insecticides. The invention permits the movement of insect-specific compounds across the insect digestive system and possibly the cuticle, and allows for specific targeting of organs within the insect system. Other possible applications include the development of a novel transformation system for general applications where genetic material can be incorporated into cells. The technology has been submitted for patenting and has been licensed to a private company. For more information, contact R. Michael Roe, 919.515.4325.

Assay for Monitoring Insect Resistance to Transgenic Crops

CIPM researchers have developed a diagnostic assay technology for monitoring insect resistance to transgenic crops. The invention has other applications, including monitoring insect susceptibility to transgenic crops, monitoring resistance to traditional insecticides, high-throughput screening for insecticides, and rearing of insects on a large scale more efficiently. Two U.S. patents have been awarded and the technology has been licensed to a private company. Products are currently on the market and have generated significant income. For more information, contact R. Michael Roe, 919.515.4325.