

Reduced-Risk Pesticides, Minimum Risk Pesticides and Biopesticides

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Since 1993 EPA has expedited the registration of conventional pesticides with characteristics such as very low toxicity to humans and non-target organisms including fish and birds, low risk of groundwater contamination or runoff, low potential for pesticide resistance, demonstrated efficacy and compatibility with IPM. Materials meeting these criteria are referred to by EPA as 'reduced-risk'. The 'reduced-risk' designation applies **only to certain uses** of a particular pesticide, which may not be all label uses for that product. Reduced-risk products/uses must be registered with EPA and labels will bear EPA registration numbers. Manufacturers, however, aren't permitted to label materials as reduced-risk. Floramite (EPA# 400-481) miticide and Endeavor (100-613) insecticide are two reduced-risk pesticides labeled for use on ornamentals. Endeavor is also classed as restricted-use in New York State, since it is labeled only for professional applicator use. Spinosad (Conserve, 62719-291; SpinTor, 62719-294) insecticide is also considered reduced-risk. Tebufenozide (Confirm, Mimic) insect growth regulator for caterpillars is another reduced-risk pesticide for ornamentals but is not yet approved for use in New York State. Other reduced-risk pesticides for use on ornamentals in New York State include Heritage Fungicide (10182-408) for turf; Subdue GR (100-794), Subdue 2X WSP (100-795) & Subdue Maxx (100-796) for ornamentals; Pennant Magnum Herbicide (100-950) (prohibited in Nassau and Suffolk Counties, NY) for ornamentals; and Compass Fungicide (100-920) for ornamentals. Users in different states should verify status of these and future pesticides to be sure they are approved and considered reduced-risk by state authorities.

Minimum risk pesticides are certain products exempted from EPA registration (and therefore carry no EPA registration number) containing only active ingredients outlined in FIFRA 40 CFR 152.25(g) ("the 25b list") and inert ingredients currently identified on Federal Register Notice 59 FR 49400 ("the 4A list"). The lists can be seen via the internet at <http://www.epa.gov/pesticides/biopesticides/otherdocs/25blist.htm> and <http://www.epa.gov/oppbppd1/biopesticides/otherdocs/list4adocs.htm>. For use in New York State, minimum risk products must display pesticide use directions. All ingredients and their percent concentrations must also be listed on the label. New York State pesticide registration policy exempts true minimum risk pesticides from product registration requirements. Policies may differ in other states, which sometimes require such products to carry a state registration number. In New York State, professional applicators must keep records of application of minimum-risk pesticides but are not required to submit use summaries in annual reports. I am not aware of any list of minimum risk pesticides currently marketed.

Biopesticides, or biological pesticides as defined by EPA, are certain types of pesticides derived from such natural materials as animals, plants, bacteria and certain minerals. These include *microbial pesticides*, which contain bacteria, fungi, virus, etc. as the active ingredient, *plant-pesticides*, i.e. pesticidal substances which plants produce from added genetic material (such as corn genetically modified to produce *Bacillus thuringiensis* toxins) and *biochemical pesticides* comprised of naturally occurring substances that control pests by non-toxic mechanisms (such as pheromones or some insect growth regulators). Biopesticides must be registered with EPA. Unlike minimum risk pesticides, inerts are not considered when evaluating whether a product is classified as a biopesticide. More information on biopesticides is available at http://www.epa.gov/pesticides/biopesticides/what_are_biopesticides.htm. A list of biopesticide active ingredients can be found at http://www.epa.gov/pesticides/biopesticides/ai/all_ais.htm. A list of commercial labeled biopesticides (including those with non-ornamentals uses) and reduced-risk pesticides approved for use in New York State can be found at <http://www.dec.state.ny.us/website/dshh/pesticide/325redbio.pdf>.

Changes in pesticide registrations, regulations and guidelines can occur and this information is not a substitute for pesticide labeling. Read the label before applying any pesticide. No endorsement of products is intended, nor is criticism of unnamed products implied.

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