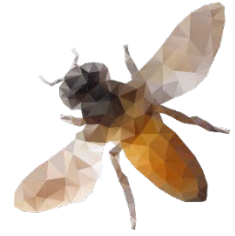


Decreasing Pesticide Impacts to Pollinators: Best Management Practices and FieldWatch

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In the spirit of National Pollinator Week, June 18 – 24, producers, bee keepers and pesticide applicators are reminded of best management practices to minimize negative impacts to pollinators when using pesticides. Pollinators are vital for the survival of most flowering plants including 80% of the approximate 1,300 crop plants grown around the world for food and industrial products. The value of insect pollinated crops in the US ranges from \$18 to \$27 billion annually, however pollinator numbers have been decreasing worldwide. One of the components of pollinator decline is pesticide use, not only on agricultural land, but also in urban areas. This article discusses best management practices and a new tool applicators and producers can use to decrease pollinator impacts, specifically to bees.

Best Management Practices

Pesticide applicators are encouraged to use Best Management Practices (BMPs) to reduce bee exposure to pesticides. The recommended BMPs for protecting bees is as follows:

- 1) Utilize Integrated Pest Management (IPM) principles in order to apply pesticides only when needed. Many measures may be taken to control pests prior to using chemicals.
- 2) Watch timing of application. Avoid spraying bee-toxic pesticides when crops or weeds are in bloom as this is when bees are most likely to be affected by pesticides. Some pesticides cannot be applied during bloom as stated on their labels. Many other pesticide labels restrict application during times when bees are actively visiting and can be applied from late evening to early morning. See your pesticide product label “Environmental Hazard” statement for additional information.
- 3) Be aware of weather conditions. Low temperatures, cloud cover and dew may extend pesticide residuals. Pesticides applied before or during cold nights, followed by warm summer days greatly increases bee kills.
- 4) Choose a formulation least likely to be a danger to bees. Read the pesticide product label “Environmental Hazard” statement. Specific risks towards non-target species, including bees, will be stated in this section of the pesticide product label.
- 5) Take measures to minimize vapor and spray drift.

Communication and FieldWatch

Good communication between beekeepers, producers and pesticide applicators is critical to protecting pollinators. Often applicators are not aware of local hives which increases the risk of pesticide exposure. FieldWatch, Inc® is an online tool that helps pesticide applicators, growers of specialty crops and beekeepers communicate the locations of crops and hives to increase stewardship and decrease incidences of pesticide exposure. FieldWatch operates two FREE voluntary mapping tools for all users: DriftWatch™ Specialty Crop Site and BeeCheck™ Apiary Registry. These registries roll into one user-friendly platform for applicators to quickly view any relevant data. As of this planting season, FieldWatch is available in nineteen states (including Montana).

All applicators are urged to view the public map which is available without registering. This map contains all registered specialty crop sites and most beehives (beekeepers are permitted to mark their hives “private” so they do not show up on the public map). If applicators choose to register on FieldWatch, they not only will be able to see all crops AND beehives, but also draw an “alert area” so they are informed by email when new sites are added or when hives move in or out of their alert area. Registering is free and applicator information is NOT made public. The system is NOT a mandatory notification system but if applicators would like to contact growers or beekeepers in the system, they have all the information necessary.

Applicators, beekeepers and specialty crop producers may view the FieldWatch map without registering at <https://mt.driftwatch.org/>, or register at www.fieldwatch.com. There are several informational and outreach assets, including “How-To” guides and videos, that can be found at www.fieldwatch.com/resources. For information on bees and pesticides navigate to www.epa.gov/pollinator-protection or contact the Montana State University Extension Pesticide Education Program at ctharp@montana.edu or (406) 994-5067.

