9-13-16 RE: PESTICIDE USE IN GROUND & AERIAL SPRAYINGS

Hello! I am a 35 year resident of Orange County. A homeowner in Audubon Park for 22 years. A wife, mother, artist by trade and have been beekeeping for ten years. I also have been teaching beekeeping classes and providing live relocation of honey bees in the central Florida area for 6 years.

This is my take on it as a beekeeper. I attended a Brevard Co. beekeepers meeting last month and the state Ag Dept. fellow they sent to talk to us spent a lot of time assuring us that the state has been using Naled for a while already...that it's nothing new. He said all registered beekeepers are to receive notice of sprays so they can prepare/cover hives (what about unregistered apiaries? What about livestock? etc.). They claim the majority of spraying is done at night to lessen exposure to bees. Despite the explanation, there are still many problems connected to the safety of aerial spraying; such as:

* Re: honey bees: In any apiary there can be hundreds to thousands of honey bees exposed during night time sprayings. During warm months, honey bees sit outside their hives to cool off/ assist with hive air flow. "Covering hives up" to shield them from airborne particulates is nearly impossible. The only solution would be to move them which is often not feasible on quick notice.

*Aerial pesticide spraying is inaccurate and subject to "pesticide drift" (http://edis.ifas.ufl.edu/pi232) Drift can pollute sensitive areas like water ways (toxic to marine life), school yards, public areas, etc. Pesticide washes back into aquifers, our drinking and bathing water. According to Cornell entomologist David Pimentel, "It has been estimated that only 0.1% of applied pesticides reach the target pests, leaving the bulk of the pesticides (99.9%) to impact the environment."

*Crepuscular(active at dawn or dusk) and nocturnal pollinators are subject to direct contact during night time spaying, including beneficial pollinators like moths, bats, etc.

*Pesticide residue does not just disappear, it is washed into the soil affecting microbes, earthworms (healthy soil is "alive"), ground nesting reptiles like toads, snakes and gopher turtles, and tiny beneficial insects including native bees. 70% of our native bees, including bumblebees, are soil and ground debris nesting making them particularly vulnerable to pesticides. While honey bees are typically the "face" of the bee population in the public's mind, this species is a small percentage of the vast pollinator population in Florida that includes native bees. Florida has over 300 native bees alone, many of them endemic to Florida. These natives are important to our economy as they are specialists in pollination that provide what honey bees cannot. A part of our bees value as "indicator species" is that their health status gives us a good idea of the the status of other pollinators feeding/living in the area. Bees are "keystone species", that is an animal that plays a unique and crucial role in the way an ecosystem functions. Without keystone species, the ecosystem would be dramatically different or cease to exist altogether.

I'm hoping that Orange County will consider alternative measures to pest control that are less toxic to our environment and resources.

Harmful environmental impacts of pesticide use include:
* Loss of biodiversity and elimination of key species (e.g., bees)
* Water pollution
*Soil contamination

*Pest resistance, resulting in the need for increased application of pesticides, or formulation of alternate pesticides.

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