

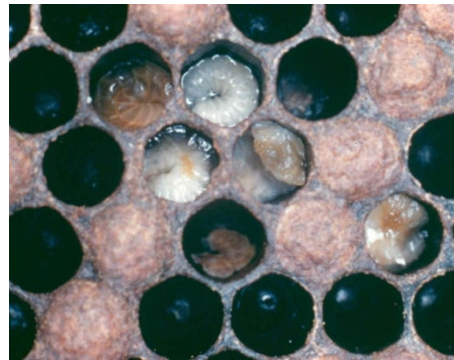
# ***Pollinators and Pesticides***



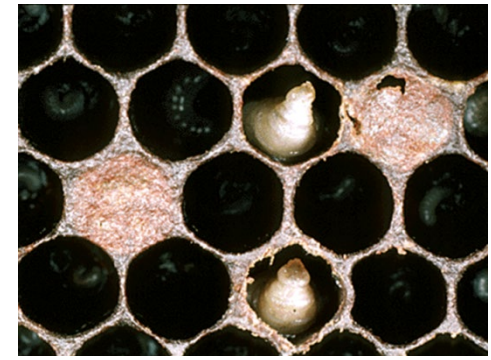
**Virginia Mosquito Control Association  
VDACS - Office of Pesticide Services  
January 26, 2022**

# Many Factors Impacting Bees

- Loss of Habitat
- Migration - Stress
- Disease\*
- Parasites\*
- Genetics
- Poor Nutrition
- Pollutants
- Weather
- **Pesticide Exposure**



European Foulbrood (bacteria)



Sac brood (virus)



Varroa Mite



Wax Moths

# Pesticides

- Pesticides are legal for use.
- Pesticides control pests that adversely affect crops, structures, public health and domestic animals.
- The label is the law, although, states can have additional standards.
- Pesticides are used by occupational users, agricultural producers, consumers and beekeepers.

## ***What is a Pesticide?***

***“A Pesticide is any substance or mixture of substances intended for preventing, repelling, or mitigating any [pest], or intended for use as a plant regulator, defoliant or desiccant...”***

- Natural or synthetic  
*For example,*
- Herbicides
- ***Insecticides***
- Rodenticides
- Avicides
- Miticides
- Disinfectants
- Fumigants
- Algicides
- Growth Regulators



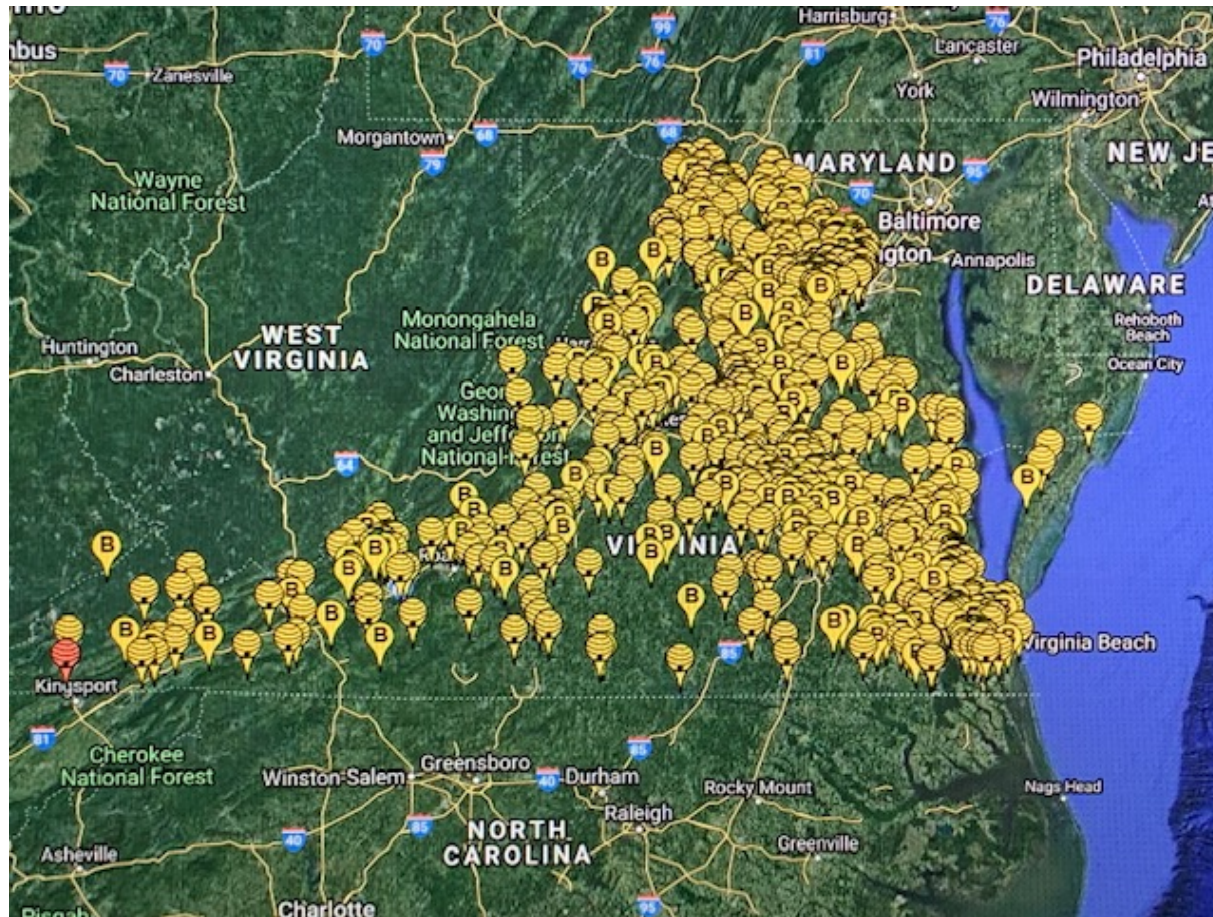
Everywhere...

# Where are they used?



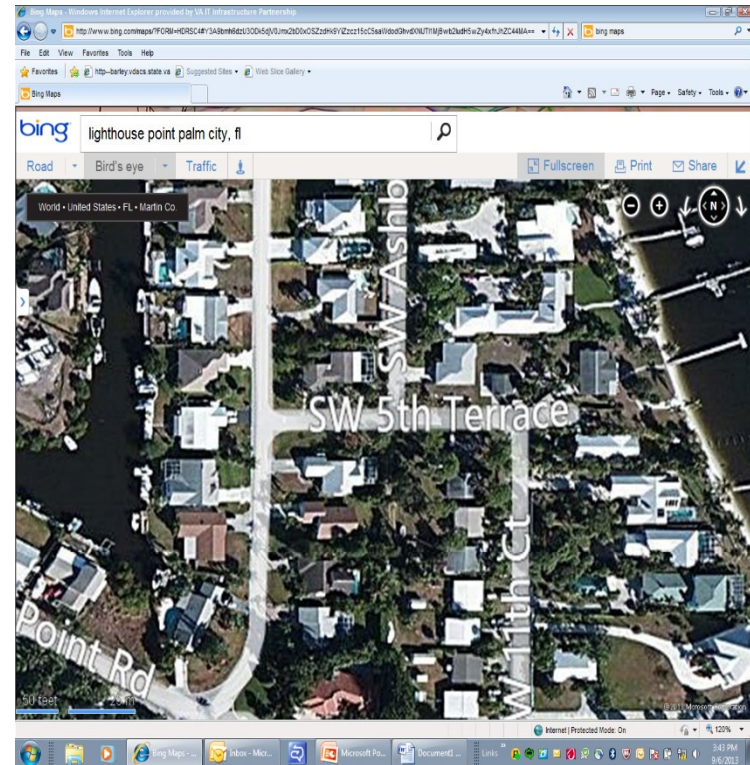
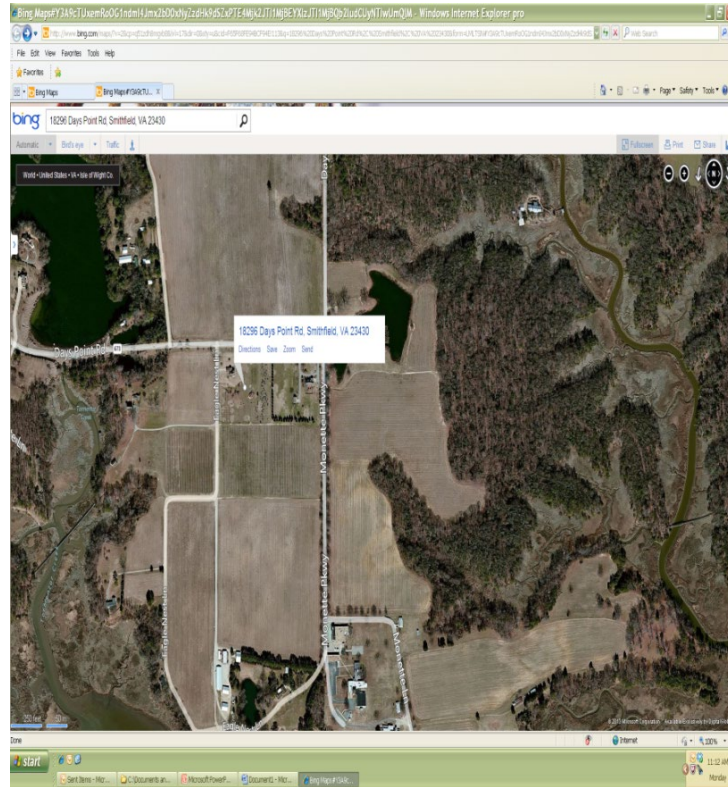
Everywhere...

# Where are the Bees?





## Ag, Non Ag, Urban, Rural...



**Anywhere pesticides are used and bees are present!**

# Regulating Pesticides

- Federal and state government agencies regulate the sale, distribution and use of pesticides.
- The [U.S. Environmental Protection Agency \(EPA\)](#) is the primary federal agency responsible for pesticide regulation.
  - Federal Insecticide, Fungicide and Rodenticide Act
- In Virginia, the [Virginia Department of Agriculture and Consumer Services \(VDACS\)](#) is the lead agency for regulating pesticides.
  - Virginia Pesticide Control Act
  - Regulations Pursuant to Act



# Requirements

- § 3.2-3930. *All applicators must be **certified** .... when making a pesticide application in exchange for compensation of any kind.*
- **Category 8.** *Public health pest control. This category is for commercial applicators who will be using or supervising the use of pesticides for the management and control of pests having medical and public health significance.*
- § 3.2-3924. *A business must have a pesticide **business license**...*

# Insecticides

- Defined as ...*any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects that may be present in any environment whatsoever.*
- Insecticides kill insects...bees are insects...insecticides (**potentially**) kill bees...
  - Toxicity
  - Exposure
  - Method & timing of application
- Proper product selection and use are important.

# The Label is the Law

- Pesticide labels are legally enforceable.
- All of them carry the statement: ***“It is a violation of Federal [and state] law to use this product in a manner inconsistent with its labeling.”***
- In other words, the label is the law. ... pesticide users are required to read and follow the label directions. **This includes everyone that uses a pesticide!**
- Only registered pesticides are legal for use.



## *The Label...*

- Is a legal agreement between the registrant, the EPA, the end-user and the State Lead Agency for pesticide regulation.
- Mitigates the risk of the use of the pesticide to an acceptable level
  - Human Health
  - Environmental Health (includes non-target organisms like bees)
- Includes risk mitigation measures that may be implemented throughout label, for example, “**do not apply this product while bees are foraging**” ...
- Prescribes proper use which ensures continued use and availability of pesticide.

# Tips, Complaints, Reports

In addition to routine inspections, OPS conducts complete and thorough investigations of all complaints, damage reports, referrals, tips or other reports regarding a pesticide application to determine compliance with applicable pesticide laws and regulations including the pesticide label/labeling

- “An application was made and....
  - *Plants are damaged;*
  - *Headache and dizzy;*
  - *Dog is sick;*
  - *Bees are dead;*
  - *Rained and run-off into storm drain;*
  - *Etc.”*

- Standard procedures will be followed when conducting an investigation:
  - Conduct interviews
  - Visit site
  - Take photographs
  - Collect samples
  - Collect weather data
  - Review pesticide label and application records
- Totality of evidence collected will be reviewed to determine if the application was made in compliance with all applicable pesticide laws and regulations

# Violations → Enforcement Actions

- VDACS can take enforcement action against any person, business or agency that violates any provision of the Virginia Pesticide Control Act, Regulations, or the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).
- Types of Enforcement Actions
  - Letter of Caution
  - Civil Penalties per violation
  - Suspension, modification, revocation or denial of business license and/or applicator certification
  - Filing of criminal charges
  - Refer to U.S. Environmental Protection Agency for federal action
- **Label is the Law** - Misuse violation includes any violation of pesticide label.
- At the intersect of pollinators and pesticides, it is the **off-target movement (spray drift)** that is of greatest concern.
- There is no standard of “harm” for the off-target movement of *pesticides...if it moves, even if there is no harm, **it is a violation.***



# Protecting Pollinators

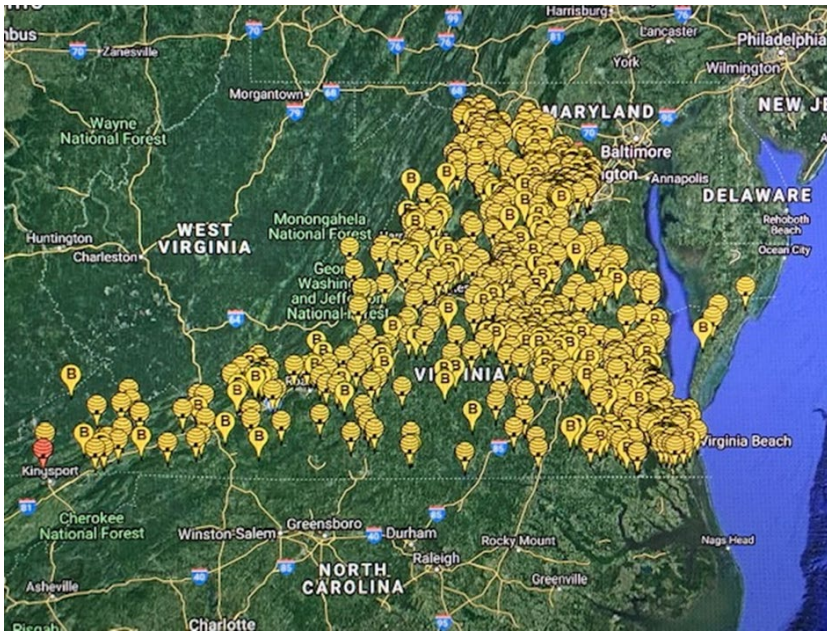
## *Voluntary Plan to Mitigate the Risk of Pesticides to Managed Pollinators*

- Voluntary, proactive approach which focuses on **enhanced communication and coordination between pesticide applicators and beekeepers**.
  - Beekeepers providing information regarding the location of their hives; and
  - Pesticide applicators providing advance notice of applications that have the potential to impact managed pollinators.
- To facilitate the communication, VDACS has acquired an online mapping tool:
  - **Beekeepers can use *BeeCheck*<sup>™</sup>** to map the location of their hives;
  - **Agricultural producers and pesticide applicators can register with *FieldCheck*<sup>®</sup>** to view the locations of hives in the application area and notify beekeepers of planned applications.

# FieldCheck® for Applicators

- FieldCheck is the online and mobile portal for applicators
- FieldCheck is free to register for pesticide applicators
- FieldCheck data may be streamed to Precision Ag platforms
- FieldCheck provides location and contact information to promote communications between specialty crop growers, beekeepers, and applicators
- FieldCheck may be used by applicators spraying lawns, mosquito abatement, right of way, and vegetation management
- Pesticide applicators should register in FieldCheck to maximize benefits

# Applicator Access – Three Ways



- **Public Map (FREE)**
  - All crop sites
  - Most beehives
- **Register with FieldCheck (FREE)**
  - All beehives
  - Email notifications of new sites
- **Member Data Subscription**
  - All sites
  - Downloadable or live stream through software provider

For information: <https://va.driftwatch.org/>



# New for Users – Mobile Apps!

## ✓ FieldCheck for Applicators

- Map: Detailed Site, Contact View, Find Sites Near Me
- Options on defined “Alert Area”
- Notification when sites added or removed
- Increased functionality and visibility
- API design to communicate with other technology platforms
- Available for FREE on Apple/Android systems



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