- Honey bees and pollinators are in decline generally with a nationwide average of 30.4 percent winter loss each year since 2006-2007. VT losses = 42.4% last winter (2013-14) <u>http://beeinformed.org/winter-loss-reports/</u>
- 2. It is well established that pesticides are part of a multi-pronged problem
 - a) Primary Causes of Current Honey Bee Health Challenges The Five "Ps" +:
 - 1. **Pests** (varroa mites, beetles, wax moths, etc)
 - 2. Pathogens (viruses, nosema, American Foul Brood, European Foul Brood, etc.)
 - 3. Pedigree (European honey bee a non-native species –genetic variation limited in U.S.)
 - 4. **Poor Nutrition** (artificial diets makes bees more susceptible to pesticides and diseases, monoculture and herbicides limit forage, plant bloom times changing climate change)
 - 5. **Pesticides** (Acute and sub-acute effects of synthetic chemicals designed to kill insects and other pests) -Neonicotinoids –systemic and target nervous system, most prevalent pesticide on the market today in U.S. Neonics persist in the environment.
 - 6. Plus Climate Change (destabilized weather patterns increased extreme weather events.)
 - b. Of the 5 "Ps" Pesticides are the only challenge to honey bees and the beekeeping industry that society has full control over and therefore we have the ability to potentially address this challenge quickly and effectively if we choose.

3. Problems with EPA Processes = Lack of Meaningful Regulation of Pesticides

- Reliance on industry data conflict of interest
- Revolving door policy with staff and personnel conflict of interest
- Studies only evaluate single chemical rather than the final formulation/tank mixes
- Studies do not evaluate toxicity of break down products or chemical combinations
- <u>http://www.americanbeejournal.com/site/epage/150785_828.htm</u>
 - Neonics represent a fundamental change in the way farmers deal with pests: from IPM approach to Blanket Treatments whether they are needed or not.
 - o Extended Residual Pesticides Testing
 - Used to determine the latest time an application can be made prior bloom without causing more than 25% loss
 - 25% loss of any livestock is not generally considered to be an acceptable loss, but this is the current risk assessment endpoint used by EPA for honey bees.
 - a. Six Neonics are scheduled for review by EPA between 2016-2019

4. Science Weighs In

- a. Over 100 Scientists send letter to Obama's Bee Task Force to Take Action on Pesticides citing 800 studies linking neonics to pollinator decline (November 2014) <u>http://www.panna.org/sites/default/files/Final%20scientist%20letter%20on%20be</u> <u>e%20policy_Nov2014.pdf</u>
- b. A recent Penn State study found neonicotinoid seed treatments increased in mid-2000's which directly correlates with CCD's appearance and the start of the current high rate of winter losses experienced by beekeepers throughout the U.S.

http://news.psu.edu/story/351027/2015/04/02/research/rapid-increase-neonicotinoid-insecticides-driven-seed-treatments

- c. Discontinuation of neonics does NOT necessarily lead to reduced harvests France banned some of these pesticides on sunflowers and corn in 2004 – and in 2007 saw the biggest yields in these crops in over a decade
- 5. Many Environmental Groups Have Called for Bans on Neonicotinoid Pesticides
- 6. Numerous petitions and lawsuits have been filed by environmental groups and beekeepers
 - **a.** This month, The 9th U.S. Circuit Court of Appeals heard oral arguments in a case focused on the first of a newly assigned sub-class of pesticides in the "neonicotinoid" class of pesticides. Specifically, plaintiffs are requesting changes in the Sulfoxaflor label, the Biological Economic Assessment Division assessment of the value of pollinators and their established habits, and the EPA's Risk Assessment Process.
- Friends of the Earth International Report 'Gardeners Beware 2014: Bee Toxic Pesticides Found in "Bee Friendly" Over half of the supposedly bee "friendly" plants sold at garden centers across the U.S. and Canada have been treated with neonicotinoids.
- 8. Friends of the Earth International **"Follow the Honey: 7 ways pesticide companies** are spinning the bee crisis to protect profits." Use of <u>Tobacco Industry Tactics</u>
 - 1. Public relations effort to create the illusion of caring
 - 2. Distracting from the primary issue by casting a wide net of blame
 - 3. Spinning and manipulating science creating diversions and a sense of uncertainty and doubt
 - 4. Purchasing influence and credibility by hiring beekeeping industry
 - 5. Blaming beekeepers and farmers
 - 6. Targeting youth
 - 7. Thwarting the efforts of regulators and policy makers
- 9. U.S.
- Lowes latest to announce a phase-out of neonic sales (spring 2019)
- BJ's wholesale club a warehouse retailer selling plant free of neonics by end of 2014
- Home Depot is running tests to see if neonics can be eliminated w/o hurting plants
- Eight U.S. cities to date have banned neonics : Including Eugene OR, Seattle WA, Spokane WA, Portland OR, Shorewood MN.

10. U.S. Congress

- House bill (H.R. 2692) Save America's Pollinators Act, would suspend neonicotinoid registrations and ban new registrations of any pesticide for use unless the EPA determines that the product would not cause unreasonable adverse effects on pollinators, including honey bees. Stuck in committee.
- Vermont -H236 Pesticide related negative health impacts to honey bees is the easiest thing for us to grapple with because it is the only one of the widely recognized problems facing bees (the 5 "Ps"+) that is entirely within our control. We are the ones that manufacture, distribute and spread these toxic chemicals around the environment. Given the slow and ineffective efforts of the U.S. EPA to date, action by Vermont's legislature is called for.