

Pollinator Protection Plan – Keith Tignor

- a. Virginia State managed
- b. Concerns
 - i. Declines in managed pollinators
 - 1. Annual winter colony loss 33.1% (1978-2013)
 - 2. Continued decrease since 1978
 - 3. Summer month losses were as high as 56%
 - ii. Bumble bees
 - 1. 5 species tracked
 - 2. All but one has declined
 - 3. One species has been put on the endangered species list
- c. Why the losses?
 - i. Environmental
 - 1. Temperature extremes
 - 2. Drought and flooding
 - ii. Nutrition
 - 1. Habitat loss
 - 2. Food resource changes
 - iii. Pathogens
 - 1. Pest
 - 2. Vial
 - iv. Genetics
 - 1. Loss of diversity
 - 2. Isolation
 - v. Toxicants/pollutants
- d. 2014 – Strategy to protect pollinators
 - i. Presidential memorandum
 - ii. EPA
 - 1. Work with States
 - 2. Mitigating pesticide risk
- e. Managed pollinator protection plan
 - i. Focus on communication and coordination between stakeholders
 - 1. Beekeepers
 - a. What actions should be taken
 - b. When should it be taken
 - 2. Pesticide consideration
 - a. Toxicity of active ingredients
 - i. Lethal
 - ii. Sublethal
 - b. Residuals
 - c. Formulations
 - i. Dust is highest risk
 - ii. Granules are lowest risk

- d. Proximity to hives and forage (average area is 5.87 square miles)
- e. Timing of application
 - i. Bee activity based on environmental conditions
 - ii. Scout, forage, return
- ii. Use of best management plan
- iii. Voluntary and proactive
 - 1. Does not include pest hives
 - 2. Works with pesticide label