

Pesticide Laws

Specific Purpose: To persuade the audience into believing that the EPA's pesticide laws should be adjusted to include the protection of pollinators like the honey bee.

Central Idea: In order to reduce colony collapse disorder due to pesticides, the EPA should adjust its pesticide laws to include the protection of the honey bee.

INTRODUCTION

- I. **Attention-getter:** According to Matt McDermott, in his article *"New Bee Death Stats in US Bring Colony Collapse Disorder Back into Spotlight"* written in 2010, **Quote** "US Scientists have found 121 different pesticides in samples of bees, wax and pollen, lending credence to the notion that pesticides are a key problem." **End Quote** Also, McDermott claims that extreme use of pesticides could be causing Colony Collapse Disorder within hives.
- II. **Enhance Your Ethos:** I have been studying Colony Collapse Disorder, or CCD, as well as the impact of pesticides on Bees for a couple months now and I have seen many different points of view and aspects of the controversies surrounding these topics
- III. **Demonstrate Audience Significance:** This controversy impacts all of the people in this room as well as across the world because according to J. Devillers, in his paper *"The Ecological Importance of Honey Bees and Their Relevance to Ecotoxicology"* written in 2002, there are close to 200,000 animals that serve as pollinators. However he states **Quote** "Bees are the most efficient and the only dependable pollinators, because they visit flowers methodically to collect nectar and pollen and do not destroy the flower or the plant in the process." **End Quote.** This means that bees are the pollinators that are most responsible for the production of a vast majority of our food.
- IV. **State the Central Idea:** In order to reduce colony collapse disorder due to pesticides, the EPA should adjust its pesticide laws to include the protection of the honey bee.
- V. **Preview:** First I will explain the exact problem regarding honey bee protection and pesticide laws, and then I will suggest a solution for this problem.

Transition: *First, I will explain the problem surrounding honey bees protection and pesticide laws.*

BODY

- I. Problem:
 - a. Need for change

- i. Colony Collapse Disorder, or CCD, is described by the Agricultural Research Service, in their article *Honey Bees and Colony Collapse Disorder*, in 2013, as a honey bee hive where there are few to or even no adult bees but no dead bodies are present. However, the queen is still present in the hive.
 - ii. Also, James Devillers in the Preface to his book *"Honey Bees: Estimating the Environmental Impact of Chemicals"* written in 2002, states that **Quote** "Although these social insects are not the targets of all the different agrochemical treatments used in crop protection, they are widely affected by pesticides." **End Quote.**
 - iii. Therefore, if the honey bees are being affected by these pesticides and there is reasonable belief among various scientists that pesticides could be causing colony collapse disorder, then one would think there would be a policy in place to protect the bees.
- b. Barriers to change
- i. According to the article *"Montana Pesticide Laws and Regulations"* Written by Montana State University in 2008, **Quote** "Under the Federal Insecticide Fungicide and Rodenticide Act, the EPA [or Environmental Protection Agency] has general authority to regulate pesticide use in order to minimize risks to human health and the environment." **End Quote.**
 - ii. However, this is problematic because the EPA has to follow the Endangered Species Act. According to the EPA article *"Pesticides"* written in 2012, this means that the **Quote** "EPA must ensure that use of pesticides it registers will not result in harm to the species listed by the U.S. Fish and Wildlife Service as endangered or threatened." **End Quote.**
 1. Honey bees are not a federally listed endangered or threatened species though.
 2. Therefore, they aren't a species that is a focus of protection when the EPA is registering chemicals that can be used by farmers for agriculture.

Transition: *Now that I have explained the problem regarding honey bee protection and pesticide laws, I will explain a possible solution to this problem.*

- II. Solution
 - a. Proposal for change:

- i. In order to reduce colony collapse disorder due to pesticides, the EPA should adjust its pesticide laws to include the protection of the honey bee.
 - ii. According to the EPA website, and their Pollinator Protection page, they are **Quote** “working aggressively to protect bees and other pollinators from pesticide risks through regulatory, voluntary and research programs.” **End Quote**. It is therefore evident that the EPA is working toward protecting bees and other pollinators from the harmful effects of pesticides, but there is no law to protect them.
 - iii. Also, on their page “*Pollinator Protection: Strategic Plan and Current Activities*” the EPA promotes their Pollinator Protection Strategic plan. This plan is focused on the following three factors:
 - 1. Advancing the scientific knowledge and assessments of the potential harmful effects of pesticides on pollinators.
 - 2. Improving tools for risk management
 - 3. And Increasing communication and collaboration with other governmental and non-governmental agencies and organizations.
 - iv. These programs and goals are not effectively protecting the honey bees though because they mainly remain ideas. They have yet to be put into action as actual policies that will be enforced by the government either locally or federally.
- b. Practicality of change
 - i. This change is very practical. The EPA has proven on their website on their *Pollinator Protection* page that they are focused on future protection of honey bees and other pollinators affected by pesticides. Already they have:
 - 1. A schedule to review the registration of certain pesticides because of the unknown effects of them on pollinators
 - 2. Also, they are working collaboratively with other groups such as beekeepers and pesticide manufacturers to find the best management strategies for the future.
 - 3. Finally, they are working with global partners to advance the science surrounding the effects of pesticides on pollinators.
 - ii. Therefore, I think that the EPA is already on the right track to creating laws that would protect the honey bees in the future.
- c. Advantages of change
 - i. The actual creation of laws is extremely important for this issue because it would provide far more advantages than the current policies.

1. The most important is that a solid law will protect the bees for much longer than current programs. The future of the programs the EPA has begun is unpredictable. If the rate of colony collapse disorder in hives was to decrease, the EPA may decide that their money and effort is better spent elsewhere. This would be okay if we could ensure that the rates would continue to be low. However, that is completely beyond our ability to predict at this moment because scientists don't know the exact causes and factors that play a role in CCD.
2. Also, creating a solid and firm law would almost force groups to further study the causes and effects of CCD in bee hives. Both groups opposed to and in support of such a law would have to do a lot of research to support their claim. This would allow the the science behind the effects of pesticides on bees to be advanced.

Transition: *In Conclusion,*

CONCLUSION

- I. **Reinforcement of Thesis:** In order to reduce colony collapse disorder due to pesticides, the EPA should adjust its pesticide laws to include the protection of the honey bee.
- II. **Audience Application:** The loss of honey bees across the globe affects all of us. Our food production is what will ultimately be hurt by our use of pesticides.
- III. **Final Idea:** As Rowan Jacobsen stated in his book, *"Fruitless Fall: The Collapse of the Honey Bee and the Coming Agricultural Crisis"* written in 2008, **Quote** "you don't have to kill bees to destroy a colony. Anything that affects bees' memory, learning, senses, appetite, digestion, instincts, or life span can be enough . . . Skew enough of them, and the beautiful mathematics of the hive break down." **End Quote.**

References

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