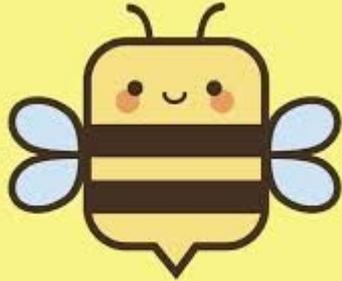




By: Clara B. and Amy C.

How Can We Save The Bees?



Nice to meet you!

Why do they need saving?



Question and hypothesis

Question: How can we help the bees?



Hypothesis: We think we can help the bees by planting more flowers.

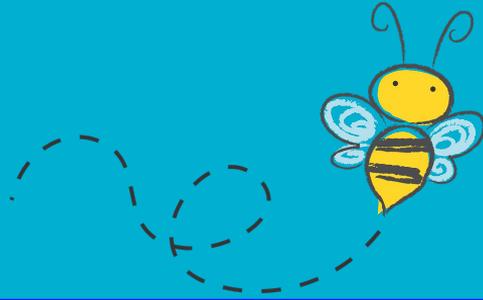
What made us want to learn about this topic more?

We wanted to learn more about this topic because we want to help people realize that the bees need our help. We didn't know that before. When we were doing this project we felt like we were also doing the bees a huge favor by spreading the word that the bees need our help, we are the difference between life and death for some species. As we did more research we realized this wasn't just a project this was hope, hope that we will rise above our differences and help one another because we are stronger TOGETHER!

We were hoping to learn about the bees, what they do for our ecosystem, how we can save them, and why we should save them. In our slide we have answered all of our questions about the bees and we hope that we can answer yours!



Our research



We chose to do a research project and not an experiment. For our research we found some trustable websites that we could use. After we were done using them we made sure to copy the website. We copied the website so that everyone would know where we got our information and if the information was correct. When we were researching we decided to go to Youtube a bit and we found some really good videos on bees. These videos were from good channels that are very trustworthy and had the right information.



Why we chose this topic



We chose this topic because we wanted to teach people about the bees and how they need our help and in doing so we have learned so much about the bees, and how we can save them. We hope you enjoy reading it as much as we enjoyed making it!



Why you should be interested in this topic

You should be interested in our topic because we explain how we can save our ecosystem, and this is big. If the bees go extinct that affects everyone. That's why you should help the bees, and in this slideshow we have given lots of examples how and why you should save the bees.

We also think this is something the world should know about and something we should all help with because we all need what the bees give us so if you help the bees, you are helping everyone.



What are bees?



What are bees?

Bees are insects that have 4 wings, and 6 legs. They fly from flower and gather pollen and nectar and make a substance we call "honey". They also usually live in large colonies, in a hive.



Other Pollinators

Other pollinators include butterflies, hummingbirds, some types of beetles, wasps, bats, and flies.



Bees aren't the only insects/animals that pollinate many other insects/animals also pollinate but what makes bees so special? The answer though is not something you can find on google. So here is the answer from our perspective we think that bees are more effective in pollination because:

1. They stay in large colonies and pollinate together
2. They have fuzzy bodies that allow more polline to stick to them
3. They spent most of their life pollinating





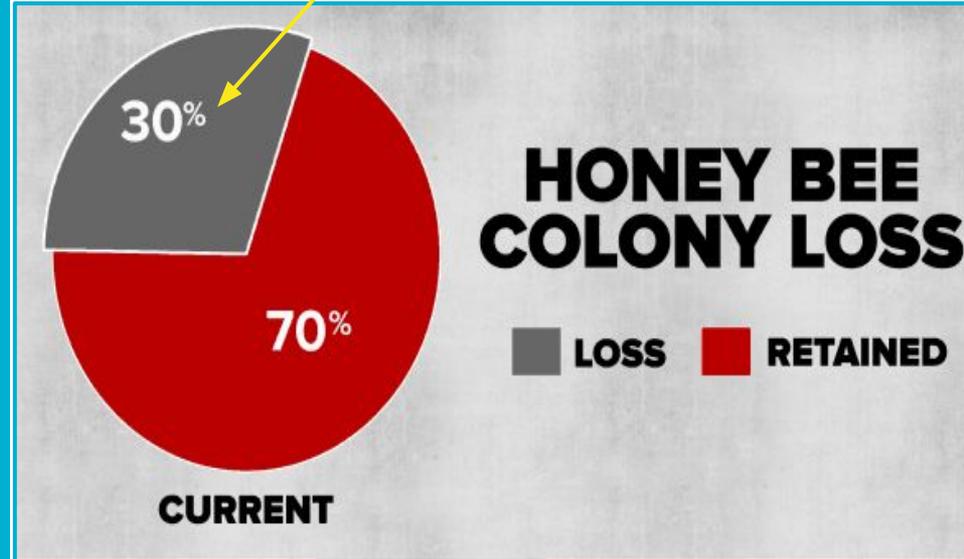
Bees are dying and we need to help

“We need to change the fate
of tomorrow”

-Clara Baskerville



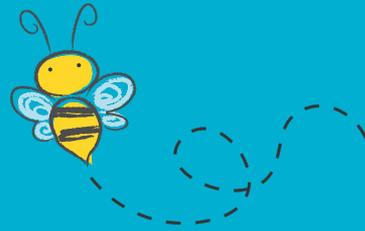
That 30% could grow, what if the numbers switched? 70% loss, 30% retained? We need to make sure that doesn't happen.



When you think “honey” what do you think?

Well what most people think is “buy” or “Grocery store” but where did the grocery store get the honey, you got it, from our furry friends, the bees.

Now did the bees gift it to us, and say “here you go”? No, they didn’t, people took it from their hives, which isn’t very good for the bees, it is very, very hard for the bees to make honey (a bee makes 1 teaspoon in their lifetime), they need to rush to thousands of flowers a DAY, to make the delicious food we call honey.



Pollination

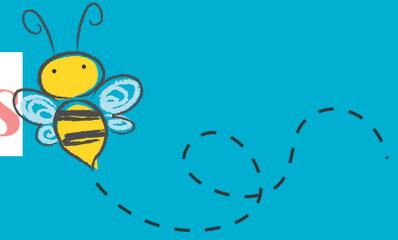
When the bees pollinate they are not only spreading nectar from flower to flower they are making life. The bees fly from flower to flower to spread nectar from males to females and females to males to create life, more plants!



Bees bodies have become more fuzzy over time to pick up more polline when the polinate



Two reasons we need to save the bees



1. Now you might be thinking, why do we even need to save the bees? Well, we need to save the bees because they do more than make us delicious honey. They also pollinate 80% of the world's crops! Without bees we wouldn't have most of the food we eat. Apples, corn, oranges, pumpkins, water melon, chocolate, and much, much more that is just one of the reasons why we need to save the bees.



2. Another reason we need to save the bees is because the honey they make actually helps us a lot with us making medicine to help people, so in some cases the bee is the reason we have some types of medicine.

Why isn't everyone helping the bees?



Some people aren't helping the bees because they don't know how much the bees do for everyone, or they don't know that the bees need our help, and sometimes they just don't care, which isn't good. Now not all bees are dying some are doing fine, but the bees that are hurting WE need to help. If some people were endangered would you help....yes, you would, and everyone would help, but if some types of bees were dying would you and everyone else help? No. That's because bees are considered "lower" than people, but that's not fair. They make life, they are the reason we are all here, and we are the reason that they need our help so we need to help them!!



How bees contribute to our ecosystem



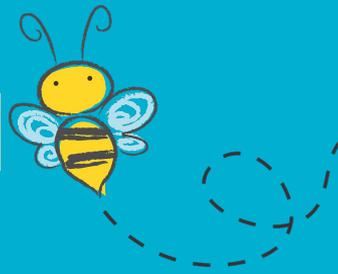
How do bees contribute to the ecosystem?

The bees contribute to our ecosystem so much. They pollinate. By pollinating and spreading the nectar from one flower to the other makes healthy plants, and the plants grow food, and healthy plants means healthy food and everything on the planet needs food to survive.

The bees also pollinate 80% of our crops, 1 out of the 3 foods you eat is thanks to the bees.



What would happen if bees died?



Things that would NOT be on your shopping list if bees died

Now you might have heard of the ripple effect or the domino effect. That is what would happen if bees died. Earlier in the presentation we talked about why bees need to be saved and we mentioned that bees pollinate 80% of the world's crops so that would be a huge impact to the agriculture, food stores, and farming industries. If the bees died many plants (such as apples, corn, watermelon, peaches, bananas etc) would die and that would mean that many herbivores would die and humans need proteins and vegetables to live so if the bees died humanity would also die with it.



- Corn
- Apples
- Watermelon
- Pumpkin
- Oranges
- Pears
- Peaches
- Carrots
- Strawberrys
- Chocolate
- Grapes
(No more wine)
- Coffee Beans
(Say goodbye to morning coffee)

Fact moment with Mr. Bee

What is the ripple effect? What is the domino effect? The ripple and domino effect are when one species die then a lot of species die with it because they can't survive without that species that died.





Reasons that the bees are dying



We support the Bees



Save the Bees!

Reason some bees are dying

Now we know why bees are so important to not only the ecosystem but to our society. So what is causing the bees to die? Well, scientists think that the bees are dying because of some pesticides and herbicides. Pesticides and herbicides can kill a bee and some can severely weaken an entire colony of bees. Here are some other reasons that we will go into more detail in the following slides: pesticides, drought, habitat destruction, air pollution, global warming and more and because the bees are dying so fast and so much there is actually a name for this “Colony Collapse Disorder”.



Climate Change or Global Warming

Climate change is changing the climate and the bees might not be able to adapt to this new climate. Like if the flowers bloom earlier in the spring the bees have less chance of pollinating them. The bees have less chance of pollinating them because bees hibernate and they usually wake around early spring but if the flowers bloom earlier than the bees have less chance of pollinating them and the bee drinks the nectar from the flower, the nectar is their meal. So if the flowers bloom earlier than the bees can't reach them in time (and the flowers just wither away).

We hibernate too!



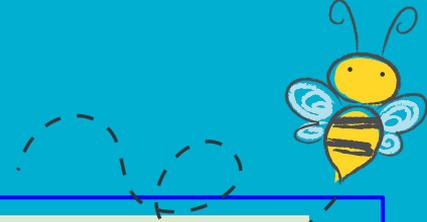
In the next slide we will go over another effect of climate change/global warming.

Droughts

Drought are when there is barely any water for a long period of time. How are they affecting the bees? Droughts are very stressful on the bees because bees need water daily. Bees don't store water so they need it for themselves and the hive. Another reason is because the plants need water and the bees need the plants to be healthy because they need to pollinate them.



Habitat destruction



Some of the reasons that the bees habitat are hurting is urban development, people build houses, and buildings, everywhere. Sometimes we will build a house or a building and not realize, or not look for the fact that it is very close to a bees hive, and when we build houses we remove flowers from the area, so less flowers, and plants, makes it hard for the bees to pollinate. Since world war 2 we have lost 97% of our wildflower meadows, and that's not ok, so we need to help, we need to stand up. When any animal loses its habitat it is going to suffer dramatically. it's like if someone takes away your home (you would suffer a lot). The bees habitat is being turned into farmland and city land. Even if a new landscape could mean new flowers to feed on, it can also cause many problems. Many bees need a specific habitat to live in and a new habitat could overwhelm them. Also if their habitat is destroyed in winter the bees could freeze to death. We need to protect our furry friends! Save the Bees!!

Air pollution



Oh
No!



Air pollution affects the bees very much because:

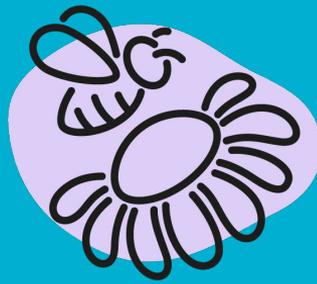
1. Our cars exhaust fumes that are known to hurt the bees sent.
2. Car exhaust also interferes with their ability to find flowers.
3. Air pollution also affects the hive, in India they have found out that the air pollution can hurt the health of the honey bees.



So, we need to help the bees, because they can't do it all, so next time you're deciding whether to drive to school, or walk to school, chose walk. For the BEES!!



Pesticides, insecticides and herbicides



Pesticides, insecticides and herbicides are also harming the bees. Insecticides can hurt bees because they kill all insects (sometimes they are made to kill specific insects). Pesticides can hurt the bees because they are put on lawns to get rid of pests but lots of people do not know that they hurt the bees too but the main pesticide that is hurting the bees is a pesticide called Neonicotinoids. Neonicotinoids can make the bees feel dizzy and can make it lose its ability to communicate. Since neonicotinoids go onto plants, the plants nectar is also contaminated so when the bees brings back the nectar to the hive. Then that allows the neonicotinoids to spread into the hive and that means the other bees in the colony would also get infected with neonicotinoids resulting in the death of a whole colony.



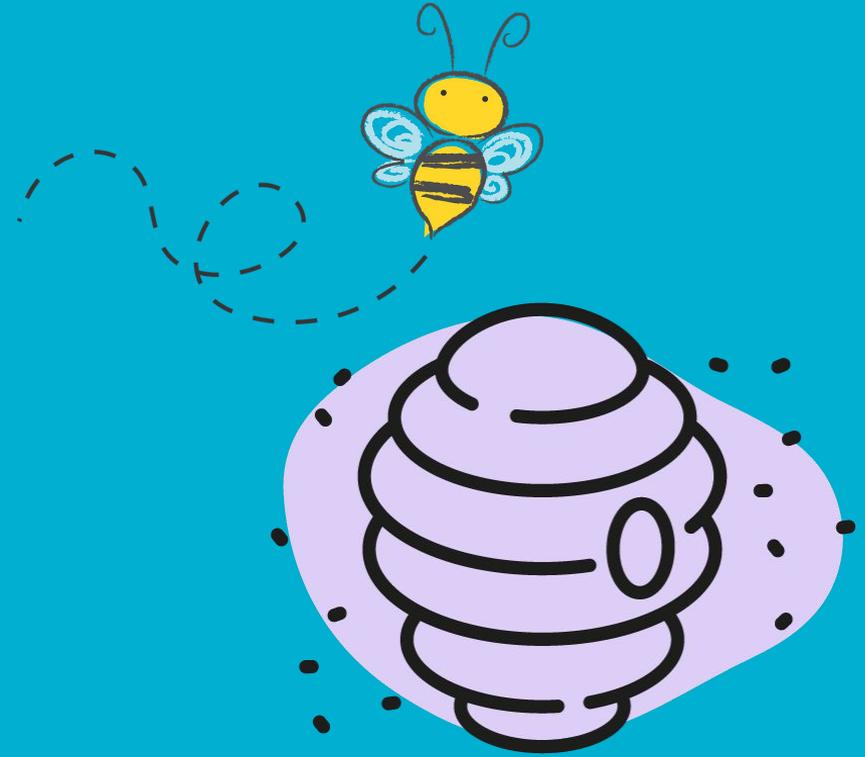
Fact moment with Mr.Bee

Pesticides, insecticides and herbicides are different. A pesticide is used to kill fungi, plant diseases, bugs and they kill bugs through digestion immediately or over time. A herbicide on the other hand is used to kill annoying plants such as weeds and insecticides only kill insects.



Agricultural services

Now you might be wondering that why growing crops would damage the bees. Well it would hurt the bees because just like humans bees need to eat a variety. Since growing crops mean only one type of plant in one area that can damage the bees because bees can't survive on one type of plant, they need a variety of plants.





Section conclusion

Now that we have information on why bees are dying we can now find out how to solve it. Save the bees!!

How can we save the bees



How can we save the bees

We can save the bees in many different ways. A little act could save a life, and helping other living things be successful will make you happy. Now here are some ways you can help the bees.



- Plant flowers, trees e.t.c.
- Make a garden
- Stop using pesticides (If you can)
- If you can't stop using pesticides than just use less of them (only use them when you need to)
- Make a bee bath (remember bees need water too!)
- When your weeding your lawn leave some weeds for the bees because they are a great food source for the bees
- Tell other people that the bees need our help, they aren't dangerous, they help us more than any other animal on the planet
- Buy local honey from your local beekeepers

Gardens, plants and pesticides



Gardens

Gardens are a really fun thing to make. They are pretty, smell good, give the bees the pollen they need, and are an amazing food source for bees! Making a garden will help the bees and it looks great! You never know the garden might just save a colony of bees.

Plants

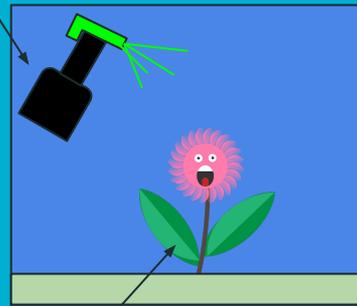
Plants are an awesome place to get pollen, like trees, flowers, even a bush with some berries might mean the difference between life and death, remember you are helping something survive, something live. And it's a really good feeling.



Pesticides

Pesticides

We think that pesticides might be the most challenging obstacle for the bees to avoid so if you try to use less of them then you just saved a life.



Innocent flower



Bee Baths, weeds, and beekeepers



Bee Baths:

Some places are very dry, like Calgary and bees need water too, they don't have a fridge or tap to get it from, so we need to support them, now remember getting the bees a bee bath might be expensive, or you don't know where to get it, ask, and remember that bee bath might save lives.

Weeds:

Weeds are pesky but they are also a major food source for bees but if you don't like weeds what do you do? Well, you can plant a garden. Gardens are also a good food source for the bees. So if you don't like weeds just plant a garden, both ways are helpful to the bees.

Beekeepers:

Beekeepers also help raise and protect the bees. The beekeepers help the bees take care of themselves, they provide them with new queens and give them new hives!



Tell other people



People need to know that the bees need our help, one person can't do it alone, but together we can save the bees!

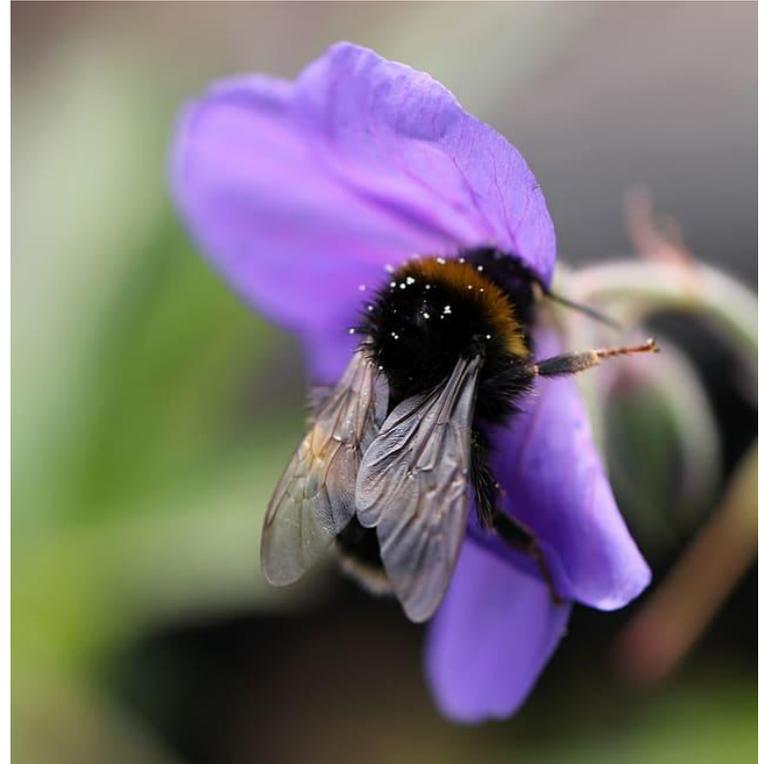
Tell people that we need to stop taking food for granted, the bees give us our life, now we need to give them theirs.





How we think we can save the bees

From our perspective



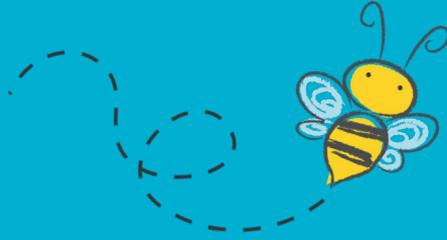
What we think



We think that pesticides, herbicides, and insecticides are really unhealthy for the bees because they are designed to kill life (Weeds, bugs e.t.c.). They aren't designed to kill the bees but they do anyway so if you can just use a bit less of pesticides and leave some weeds for the bees then you just saved a life. You saved something that couldn't defend itself, something gentle and kind who saves us from starvation everyday by pollinating every flower, they even save their predators. We hurt them and they save us. That's not good. That is why we need to save them. Save the bees!!



Conclusion



In conclusion we need the bees because they play not only an important part in the ecosystem but in our society. Our hypothesis was incorrect because we thought that we could only help the bees by planting flowers, but that's not true. We have found out that we can help the bees in many different ways like making a garden, not using pesticides, making a bee bath, leaving some weeds in your lawn for the bees, telling other people, and buying honey from your local beekeepers.





What's next?



If we could continue our research even further we would research is...

Is there anything else we can do to help the bees?

Is there anything specific that harms the bees in the pesticides?

How much of the population know that the bees are dying and if they do are they helping?

If we had unlimited resources what would we do to help the bees?

First we would extend the prices for pesticides, herbicides, and insecticides. Then we would highly recommend to EVERYONE to use LESS of them. Then we would try to persuade people to ride bikes, walk, run etc instead of driving cars/motorcycles because of the car exhaust (It hurts the bees). We would also make construction workers look for bee hives (and other animal habitats) very thoroughly before building anything. We would also try our BEST to encourage people to buy/make a bee bath, and plant flowers, plants, or even a bush. We would also try our BEST to encourage people to make a garden, or a bee hive for the bees.



Where we got all of our information:

<https://www.buzzaboutbees.net/how-do-bees-make-honey.html#:~:text=Bees%20have%20to%20work%20over,to%20flowers%20to%20collect%20nectar.&text=Back%20ahttps://247wallst.com/special-report/2019/08/14/why-are-bees-dying-and-why-we-should-save-them/>

<http://honeylove.org/bees/#:~:text=Bees%20pollinate%2080%25%20of%20the,U.S.%20agricultural%20crops%20each%20year>

<https://www.greenpeace.org/usa/sustainable-agriculture/save-the-bees/>

<https://www.earthday.org/wp-content/uploads/species/bees.pdf>

<https://www.britannica.com/story/what-would-happen-if-all-the-bees-died#:~:text=Without%20bees%2C%20the%20availability%20and,the%20dedication%20of%20human%20hobbyists>

<https://www1.health.gov.au/internet/publications/publishing.nsf/Content/gug-family-toc-gug-family-foods-gug-family-foods-basic> (this one was for when I was looking for what food we need to eat)

<https://www.newscientist.com/article/2244009-bees-force-plants-to-flower-early-by-cutting-holes-in-their-leaves/#:~:text=Bees%20normally%20come%20out%20of,which%20means%20the%20bees%20starve>

<https://www.newscientist.com/article/2232302-climate-change-is-killing-off-bumblebees-in-europe-and-north-america/>

<https://kidshealth.org/en/kids/bee.html#:~:text=Wasps%20and%20many%20bees%20can,it%20tries%20to%20fly%20away>

<https://www.google.com/search?q=how+many+bees+die+a+year+because+of+sting+people&aq=chrome..69157.1643917&sourceid=chrome&ie=UTF-8>

<http://www.newyorkbeesantuary.org/habitat-loss#:~:text=Pollinator%20habitat%20has%20been%20lost,bc%20detrimental%20to%20those%20species>

<https://insights.osu.edu/sustainability/bee-population#:~:text=Bee%20populations%20in%20the%20United,of%2010%20to%2015%20percent,%20the%20bee%20hive,into%20wax%20cells%2C%20called%20honeycomb>

<http://www.newyorkbeesantuary.org/blog/2016/3/3/10-ways-you-can-help-save-the-bees>



Where we got all of our information #2:

https://www.llojibwe.org/drm/greenteam/pesticides_Article.pdf

<https://ontarionature.org/campaigns/pollinators/>

<https://bees.caes.uga.edu/bees-beekeeping-pollination/pollination/pollination-protecting-pollinators-from-pesticides.html#:~:text=The%20Effect%20of%20Pesticides%20on%20Bees.-Pesticides%20are%20substances%26text=Insecticides%20rid%20ous%20of%20unwanted%20insects.&text=One%20is%20direct%20contact%20of,contaminated%20and%20the%20colony%20survives.>

<https://thebeeconservancy.org/10-ways-to-save-the-bees/>

<https://youtu.be/JiYBVrFILA>

<https://youtu.be/rKONxoav7eY>

<https://youtu.be/WFsUcYzck>

<https://xerces.org/publications/scientific-reports/how-neonicotinoids-can-kill-bees#:~:text=Neonicotinoids%20are%20a%20group%20of,making%20them%20toxic%20to%20bees.&text=Research%20published%20since%20then%20clearly,bees%20of%20changing%20their%20behaviors.>

<https://www.organicconsumers.org/news/industrial-agriculture-killing-us-honeybees>

<http://www.newyorkbeesanctuary.org/blog/2016/3/3/10-ways-you-can-help-save-the-bees>

<https://www.morningagclips.com/drought-and-bees/#:~:text=drought%20and%20heat%3F-.Drought%20is%20very%20stressful%20on%20bees%20as%20it%20is%20with,Bees%20need%20water%20daily.&text=Food%20for%20the%20brood%20is,70%25%20water%20and%20honey%20pollen.>

<https://theconversation.com/air-pollution-could-be-making-honey-bees-sick-new-study-144155#:~:text=Car%20exhaust%20ofumes%20are%20known,may%20not%20kill%20bees%20outright.>

<https://friendsoftheearth.uk/nature/what-are-causes-bee-decline#:~:text=These%20include%20habitat%20loss%2C%20climate,wild%20bee%20species%20facing%20extinction.>



Where we got our information #3:



<https://www.foxnews.com/food-drink/10-crops-that-would-disappear-without-bees>

<https://www.britannica.com/story/what-would-happen-if-all-the-bees-died>

https://www.fs.fed.us/wildflowers/pollinators/What_is_Pollination/

<https://www.sciencedaily.com/releases/2016/04/160413084523.htm#:~:text=This%20new%2Dfound%20ability%20of,appropriate%20floral%20resources%20are%20available>

<https://bees.techno-science.ca/english/bees/the-beekeeper/what-keepers-do.php#:~:text=Beekeepers%2C%20also%20known%20as%20apiarists,their%20own%20needs%20fairly%20well!>

<https://www.google.com/search?q=how+many+legs+to+bees+hav>

<https://cwf-fcf.org/en/resources/encyclopedias/fauna/insects/bees-and-other-pollinators.html#:~:text=Bees%20are%20the%20principal%20pollinators,beetles%20as%20well%20as%20hummingbirds>

<https://www.merriam-webster.com/dictionary/bee>

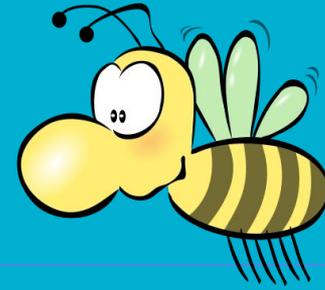
https://www.oursafetynet.org/2021/01/19/the-buzz-on-native-bees-a-key-underdog-in-pollination-and-ecosystems/?gclid=Cj0KCQjA4feBBhC9ARIsAB0_nbUcPXeFSCdXslefIkGNOekcYWTsvmEqPkIm2YXvf02zkn3TSOOCKoaAsdgEALw_wcB

<https://www.canr.msu.edu/nativeplants/pollination/#:~:text=Why%20are%20bees%20good%20pollinators,pollen%20grains%20through%20electrostatic%20forces.>



Teeheehee

The End



Thank you for watching!

SAVE THE BEES

