

Archivist:

The problem of Colony Collapse disorder became serious early in the twenty first century. Experts had several theories about the cause, but it seemed to be brought on by a perfect storm of factors, not just one source. It is thought that pesticides (specifically neonicotinoids), pests themselves (like varroa mites) and diseases, habitat loss, and climate change all contributed to the loss of the bees. All of these complicated factors made it an impossible problem to solve. Even if people had fixed one problem (for instance, eradicated the varroa mite), bees likely still would have disappeared. Also, as the planet warmed even more from 2015-2030, all of these problems were exacerbated. Climate change is definitely the hardest problem on this list to solve, and now in 2030, we are attempting as much as possible to mitigate its effects. One of the most major effects is definitely the loss of bees.

An interesting campaign that the government put on around 2020 was the concept of personal gardens, similar to 'victory gardens' that people grew during World War II in the 1940s. Crop diversity was lowered by the loss of bees, and people were frustrated at what they could no longer buy at the supermarket. Instead of trying to control the whole infrastructure, the government simply started encouraging people to grow their own food as much as possible. The small, local, organic farm movement had already been growing in popularity in the 2010s, so this was not too big of a step for people. People helped and encouraged each other, and the government provided educational videos and websites on gardening, and provided subsidies for seeds. Even with this supplemented food, people had to get used to not being able to eat every type of food during the whole year. With their own gardens, and very small local farms, people could only eat what was in season in their area. Initially, this caused a bit of panic, because people were so comfortable with going to the grocery store and buying anything they wanted. The old 'apple a day' adage no longer made sense, because apples are pollinated by bees, and so were no longer available to most people. It is important to note that bees are not entirely responsible for pollination- there are other natural pollinators, but they are not nearly as effective. So, crop yields dropped considerably, to the point where some crops were virtually unavailable. Some foods became only available in local areas, or were very expensive luxury items.

Another consequence of the loss of bees was a change in food prices. Honeybees contributed over \$14 billion to the value of crop production. As is still true today in 2030, the rhetoric of growth and the health of the economy were very important to the American people. As such, the loss of bees was primarily talked about as an economic loss. In the latter half of the 2010s, people campaigned to 'Save the Bees!' - but not for the health of the bees themselves. People mostly cared about their lives on a day-to-day basis, and a loss of bees meant a loss of crop yield, which made grocery prices rise. As a result, this was one of the main areas in which the government tried to step in to help. Food stamp programs, once only considered for the most 'needy', were expanded. Hunger was already a problem in America in the early 21st century; the government realized this problem would only be worsened by the loss of bees. Widespread hunger and panic was too big of a problem for the government to ignore, so they instated subsidies for food, and especially for fruits and vegetables.

In efforts to battle the economic down swings brought upon by the loss of the bees, the government started employing aggressive fiscal policy measures by increasing spending dramatically in areas that would create jobs. With the introduction of "Victory Gardens," high amounts of funding were imposed onto the agricultural sector, developing government run victory gardens across communities throughout the country. In doing so, they were successfully able to both further encourage the transition into localized farming and also open up many jobs for individuals that may be unemployed due to Colony Collapse Disorder. A highly regarded new occupation of hand pollination was introduced. This profession

was in high demand as the government provided anyone who worked this job with great benefits and long term social security incentives. Hand pollinators soon became the most sought after job within the market, leading to the creation of privately owned hand pollination companies that were responsible for allocating and regulating hand pollinators across the local gardens within a given community. This is by no means a replacement for pollination via bees, but it was an efficient form of pollination for localized farm.

Yet another example of fiscal policy enacted by the government would be research incentives towards food systems. After colony collapse disorder shook the foundation of the American people, they were confused and disoriented as to how such an extreme loss could take place without our noticing. It was determined that this mistake would never be made again as the consequences were more dire than ever expected. Millions of government dollars were funded into research incentives to provide a safeguard from future tragedies that may sneak up. This included the research on all other pollinators as well as the health of the soil and all the intended and unintended effects of the local fertilizers and insecticides being incorporated. This also opened up new jobs to the market as individuals who were determined not to let something like that re-occur joined in the effort to increase our knowledge. The sensitivity of the food systems in which we obtain our nourishment from was highlighted through this disaster, calling for greater levels of caution and care when it came to anything dealing with the newly designed Victory Gardens in play. The introduction of these gardens also helps reduce the impact levels of such disasters as each farm would have a high level of biodiversity making it more resilient to outside stressors. Also having these localized farm removed the possibility of large scale phenomena's such as colony collapse from taking place as local individualistic farms reduce the capability for such a thing to spread out.

By 2025 the unemployment that was brought about due to the disaster was finally stabilized. The economy rested within a low recession for years, and hope of ever getting out seemed slim and distant. However with this spending to produce more Victory Gardens as well as providing numerous jobs through hand pollination and research, a slow and steady recovery had begun. The focus was not geared towards future prevention instead of continued agricultural innovation. It was learned that too many issues acquainted industrial agricultural and the future of farming was established as a much more intimate and personalized activity.

Also, it should not be ignored that the loss of pollinators also hurt the animal agriculture industries. As climate change grew to be even more severe since 2016, resources like water and arable land (and obviously, pollinators) grew scarce. Animals eat crops like alfalfa that are pollinated by bees, so it was harder to produce meat on such a large scale. Because of this, the USDA revised its recommended daily intake and health standards to include very limited amounts of meat, and also more limited animal products like milk and cheese. Overall, the country shifted to a more local and plant based way of eating. The EPA also increased its focus on food systems and 'alternative' agriculture. Really this meant a return to older, more traditional subsistence farming, as mentioned above. In 2025, the government finally reworked the farm bill to not give horrendously large subsidies to large factory farms, and instead shifted funding to small farms.

Besides official countrywide history such as government policy, it was interesting to see popular culture and the arts react to this issue as it happened. Modern technology and communication have made it possible to track and archive all of the reactions to these events as they were happening. Many powerful documentaries were made about the plight of the bees, and now these take the form of 'historical' movies. Bees can be seen as a harbinger of environmental destruction. Honeybees are clearly an important species to the ecosystem, so because they are gone, other problems will soon follow. People are using this as motivation and as an education tactic to persuade those who still deny that climate change and the

environment are dire concerns. (Most people have realized that environmental damage is real and severe). Popular television shows, movies, and documentaries teach about conservation, and encourage people to care about other important species in the animal world.

Also, similarly to how 'STEM' was very popular in education in 2016, agriculture has become the needed discipline. Many scholarships were created to encourage university students to study agriculture, and not just at large traditionally agriculture based schools. Nearly every college in the country now has courses food science, to increase not only the number of young people working as farmers, but also innovation about new farming methods and techniques. Starting in elementary schools, as mandated by the federal government's 'Food Education Act', students learn about nutrition and about how food is grown. Like preventative care, the government has realized that it is easier to instill good habits and knowledge of food systems in young children so that they are not as likely to suffer from hunger as an adult, and will be interested in supporting the country by being a farmer.

This combination of government based initiatives and citizen activism and engagement made the country transition from the world in 2016 to the world now in 2030 with no bees and drastically altered food systems. We still do not have a perfect system, but then again, there has never been a perfect system in this country or worldwide to deal with the supply of food and hunger. The culture of the country has changed, as people are slowly reverting to more agrarian lifestyles and becoming more connected with the earth in which their food grows. People have to be more aware of seasons and basic agricultural knowledge so that they know which food they can buy at what time. People have also had to become more scientifically literate with regards to climate change and environmental degradation. Environmental issues have begun to impact people's lives, so no longer can they or policymakers ignore the facts. Though this world in 2030 is harder without bees, it is hopeful that people will see this as a wakeup call and continue trying to live in harmony with the environment as much as possible.