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Fieldworkers and Fumes with The Otter Side (Episode 4)

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The Otter Side: Fieldworkers and Fumes Transcript

(OTTERPOD INTRO MUSIC)

MARK COX, HOST:

This podcast is an episode of the Otter Pod and is coming to you out of California State University, Monterey Bay.

[0:30]

(SOUNDBITE OF FIELDWORKERS LISTENING TO MUSIC WHILE PICKING CROPS)¹

(SOUNDBITE OF INCOMING CROP DUSTER)²

[1:00]

(SOUNDBITE OF KPIX CBS SF INTERVIEW WITH JAMES JONES)³:

Reduced IQ, lower working memory scores, increased ADHD. Those were the kinds of things. They were small effects, but they were definitely meaningful.

(SOUNDBITE OF CROP DUSTER)

[1:30]

SAMANTHA CHAVEZ, HOST:

We're Nahely, Samantha, and Mark...

¹ SOUND CREDITS: "Así corta lechuga en salinas California". Adelfo Sosa, YouTube. Jan 20, 2019. <https://www.youtube.com/watch?v=lqO2cUjM5PA>. & "John Deere 7810 (8.1L) - pure Exhaust SOUND (60FPS)". 7810 Diaries - John Deere, YouTube. May 25, 2017. <https://www.youtube.com/watch?v=uc0o4Ky4m-c>. & "Sprinkler Sound Effects". EffectsLibrary, YouTube. Aug 14, 2013. https://www.youtube.com/watch?v=C1K6W_FkH8Q.

² SOUND CREDITS: "AGRICULTURE AEROPLANE SPRAYER | Aircraft Spraying Pesticides on Agriculture Crops". Discover Agriculture, YouTube. Aug. 29, 2020. <https://www.youtube.com/watch?v=qNUmbilvN2A> & Mark Cox, personally recorded.

³ SOUND CREDITS: "FARM CONTROVERSY: Controversy erupts over use of the pesticide in Central Valley". KPIX CBS SF Bay Area, YouTube. Mar. 31, 2017. https://www.youtube.com/watch?reload=9&v=PnPBZ57C24o&list=TLPQMMDMxMjIwMjCMl_RxqxyMaA&index=8.

MARK:

...and Hello, from the Otter Side.

(INTRO MUSIC PLAYS. A JAZZY INTERLUDE)

[1:56]

NAHELY CASTRO ROMERO, HOST:

Today, our episode of the Otter Side will offer a look into California's industrialized agriculture system and some of the realities of what happens when such a large industrialized system begins to spill over and contaminate the lives of people who work for, live near, and depend on these systems.

MARK:

And we mean contaminate in a quite literal sense. We'll dive into how the same chemicals that protect our foods also change the lives of those who live near industrialized US agriculture for worse. And how can these effects be viewed with an environmental justice perspective?

[2:30]

So to start, if you didn't already know, California's agricultural industry is absolutely massive. Two thirds of the United States' total fruit and nut supply are grown right in California, and further one third of the US's vegetables are too.⁴

And because Cali's Ag industry is so massive, we have multiple capitals. You know it's not just Sacramento.

You've got Watsonville; the capital of strawberries. Gilroy the capital of garlic. Oh and there's Castroville which is the capital of artichokes. And, well honestly, those are just some of the ones only surrounding the Monterey Bay area!

[3:06]

And then there's Salinas itself which is known as the salad bowl of the world.

⁴ California Department of Food and Agriculture. (n.d.). California Agricultural Production Statistics. Retrieved from <https://www.cdfa.ca.gov/Statistics/>

Just in Monterey county we have communities like: Chualar, Castroville, Gonzales, Jolon, King City, San Ardo, San Lucas, Soledad, Spreckels, and Salinas, to name a few. And each of these communities in the Salinas Valley, they yield an impressive amount of produce yearly.

[3:27]

Like, 61% of leafy lettuce, 57% of celery, 56% of head lettuce, 48% of broccoli, 38% of spinach, 30% of cauliflower, and 28% of strawberries come from Monterey county, for the **entire** US.⁵

SAM:

Massive major growers and companies such as Taylor Farms, Fresh Express, and Tanimura & Antle Fresh Foods, which you've undoubtedly seen in grocery stores, are centered right in the Salinas valley. That boils down to 1 out of 5 people in Monterey County working in agriculture. ⁶

[4:00]

And in the city of Salinas, that figure drops to 1 out of 4.

The agriculture industry of Monterey county is by far the largest sector in the local economy wherein 2011 it contributed, a total of \$8.2 billion to the local economy, including: \$5.1 billion in direct economic output, which represented about 18.5% of the county's total economic output at the time.⁷

[4:27]

In a county with over 434,000 people, about 255,000 of them identify as Hispanic or Latinx.⁹

⁵ Farm Bureau Monterey. (n.d.) Facts, Figures & FAQs. Retrieved from <http://montereycfb.com/index.php?page=facts-figures-faqs>

⁶ Farm Bureau Monterey. (n.d.) Facts, Figures & FAQs. Retrieved from <http://montereycfb.com/index.php?page=facts-figures-faqs>

⁷ Farm Bureau Monterey. (n.d.) Facts, Figures & FAQs. Retrieved from <http://montereycfb.com/index.php?page=facts-figures-faqs>

⁸ Agricultural Commissioner's Office. 2011. Economic Contributions of Monterey County Agriculture. Retrieved from <https://www.co.monterey.ca.us/Home/ShowDocument?id=1489#:~:text=contributes%20a%20total%20of%20%248.2,the%20county%27s%20largest%20economic%20sector.>

⁹ US Census Bureau QuickFacts: Salinas city, California. (n.d.). Retrieved from <https://www.census.gov/quickfacts/fact/table/salinascitycalifornia/PST045219>

And in the county seat of Salinas, whose city population makes up about a 1/3rd of all of Monterey County, well, the city is predominately Hispanic with about 79% of the city being Hispanic.

Furthermore, 38% of people in Salinas were born outside of the US with 98% coming from Latin America.

[4:55]

NAHELY:

Into pesticides. You probably already know what a pesticide is. You know, some kind of means commonly used to fight off any pests, such as insects or aggressive weeds.

But did you know that: Humanity has been using forms of pesticides for thousands of years? Records show that humans have commonly been burning crops after harvests to prevent the spread of pests, or even recruiting other helpful insects, like ants, to fight off harmful pests.

[5:25]

But with ever increasing population demands, the mass production of crops became more essential.

So we humans tried using natural compounds like arsenic, copper, or lead on crops to fight off pests, but this led to some pretty terrible health effects.

SAM:

Enter chemical pesticides. These came about around World War II. Some were intentionally designed as pesticides like Herman Muller's DDT, which would have disastrous environmental effects, but that's another story. And some other pesticides would have darker origins, like being chemically derived from agents to be used in the actual war.¹⁰

[6:02]

MARK:

¹⁰ TEDEducation. (2016, November 14). Do we really need pesticides? - Fernan Pérez-Gálvez. Retrieved from <https://www.youtube.com/watch?v=GLIIZ-qjXJA>

The Salinas Valley's relative location to the ocean means that its climate is relatively temperate compared to the much hotter conditions more inland. Combined with Salinas Valley's naturally nutrient rich soil, it is a perfect place to grow crops.

Yet, what makes the Salinas Valley a paradise for farming, also makes it a bit of a hell for fieldwork.

[6:30]

NAHELY:

Why?

SAM:

Drift.

MARK:

“*Drift*” is a term used for any pesticide residue or particles which drift into towns and residential areas, and other fields. It can occur during, immediately after, or long after the initial pesticide application. Drift can cling to almost anything it comes into contact with, and when you factor in the strong winds that constantly blow through the Salinas Valley, pesticide drift here is much more prevalent, and can be far more dangerous than in other locations.”¹¹

[6:58]

SAM:

The cities and towns in the Salinas Valley are surrounded by fields and constantly experience high wind speeds. These two factors can spell disaster for residents as the wind easily picks up dirt, dust, leaves and other small objects that can be coated with pesticides. While safety measures are taken to ensure as little drift as possible, the high wind speeds in the valley have a big impact on the amount of drift going into residential areas.

[7:26]

¹¹ Catching the Drift. (2018, July 26). Retrieved from <https://voicesofmontereybay.org/2018/07/26/catching-the-drift/>

The regulations for this pesticide mandate that the wind speeds be under 10 miles per hour on the first day of application, and the weather must be “favorable” 48 hours after the application.

If growers try to follow these regulations almost anywhere in the Salinas Valley, it seems impossible to apply the pesticide at all — yet its application still occurs in these areas. This is because wind speeds are so sporadic that the only window for application is, at most, about 11 hours at night.”¹²

[7:58]

MARK:

So Humans can be exposed to pesticides through spray drift, drift fallen on other surfaces, and even also any fruits or vegetables that have not been properly cleaned. However, pesticides can spread further still as:

“Farmworkers carry residues of pesticides on their clothing and bring it home with them. Children are physiologically and neurologically at greater risks for pesticide exposure and pesticide reaction. Children spend most of their time playing on the house floor and is where most pesticides residues remain.”¹³

[8:28]

(SOUNDBITE OF DEMOCRACY NOW! INTERVIEW WITH EARTHJUSTICE)

(INTERVIEWEE SPEAKS SPANISH WITH ENGLISH TRANSLATION ONTOP):

“When he was born I realized he wasn’t like other boys. He was a baby, but he wouldn’t sleep enough. He do things like always playing in the same place, with the same toys, or he wouldn’t speak much. When he started kindergarten he had an evaluation, and he was diagnosed with ADHD. Since i’m the type of person who wants to know why, I started looking around online. I started seeing articles saying that pesticides are associated with illness in children and children being born with these types of issues. I also asked the doctor who told me your pregnancy has a lot to do with it. What you ate,

¹² Catching the Drift. (2018, July 26). Retrieved from <https://voicesofmontereybay.org/2018/07/26/catching-the-drift/>

¹³ Fernandez, B. (2018, May 04). OPINION: We must protect Salinas farmworkers from pesticides. Retrieved from <https://www.thecalifornian.com/story/opinion/2018/05/04/opinion-we-must-protect-salinas-farmworkers-pesticides/581069002/>

where you worked. I asked the doctor directly, do you think where I worked contributed to my son's condition? He told me yes.”¹⁴

[9:28]

NAHELY:

As upsetting as her story is, this same story is common amongst families across the nation who also depend on agriculture as their source of income and livelihood. Oscar Ramos, an elementary school teacher at Sherwood Elementary here in Salinas, claims he has seen an increase of students having autism, learning disabilities and other health concerns.

[9:54]

SAM:

However, this has affected adult fieldworkers who are past developmental stages too. Under the General Duty Clause from OSHA growers are required to offer pesticide literacy and personal protective equipment to employees, yet this kind of pesticide literacy often doesn't happen.¹⁵

“We know that farmworkers are often the most immediate victims of pesticide drift from other fields. Such a case happened last year at Tanimura & Antle, poisoning 18 workers. Another incident last year in Santa Cruz County poisoned dozens of raspberry workers.” said Mark Weller who is the co-director of the Californians For Pesticide Reform.¹⁶

[10:29]

NAHELY

Pesticides are inhaled and consumed by farmworkers. In Salinas, farmworkers are exposed to pesticides many hours every day that can cause chronic diseases in the long run. Some of the chronic diseases that pesticides can cause: elevated risks of cancers, neurobehavioral deficits, congenital malformations, leukemia and neoplasm.”¹⁷

¹⁴ Democracy Now! (2019, July 23). The “Outdated Pesticide” chlorpyrifos is linked to a range of health issues. Why isn't it banned?. Retrieved from https://www.youtube.com/watch?v=_6azVrN6P6o

¹⁵ Fernandez, B. (2018, May 04). OPINION: We must protect Salinas farmworkers from pesticides. Retrieved from <https://www.thecalifornian.com/story/opinion/2018/05/04/opinion-we-must-protect-salinas-farmworkers-pesticides/581069002/>

¹⁶ Catching the Drift. (2018, July 26). Retrieved from <https://voicesofmontereybay.org/2018/07/26/catching-the-drift/>

¹⁷ Fernandez, B. (2018, May 04). OPINION: We must protect Salinas farmworkers from pesticides. Retrieved from <https://www.thecalifornian.com/story/opinion/2018/05/04/opinion-we-must-protect-salinas-farmworkers-pesticides/581069002/>

But who or what is the culprit?

[11:01]

MARK:

Chlorpyrifos

Chlorpyrifos (chlor-peer-eh-fos) is a pesticide that works by blocking messages sent between nerves, causing the nervous system to malfunction and ultimately kill the pest. Studies have found, however, that this pesticide also has also been having effects on humans. In fact, remember that some pesticides came about from World War II?

[11:30]

Yeah, well Chlorpyrifos is one of them. Chlorpyrifos is derived from organophosphates, a group of compounds that were...**developed by Nazi Germany to be used as nerve agents**. Yep. And now that's on our fruits and vegetables. Actually, Chlorpyrifos is one of the most popular and widespread pesticides being used in United States agriculture right now. Yay?¹⁸

[11:55]

SAM:

Given that the city of Salinas alone is made up of a 79% Hispanic population, one of the communities hit the hardest with the malpractice of chlorpyrifos has been the Latinx community, particularly the children. Several schools in Salinas alone, like Mckinnon Elementary, Gavilan View Middle school, Alisal High school and Everette Alvarez high school are within 1 mile of fields, if they aren't just plainly surrounded by them.

[12:31]

Ramos expanded on this topic by saying "The Hispanic and Latino students are the ones being affected the most. Because they're Hispanic and Latino, no one seemed to care enough to ban it. The Ag commissioner, the (Department of Pesticide Regulation), the state. They were putting ag companies above our children. Our kids already start with a huge disadvantage and adding something that's going to affect their IQ level and their ability to learn, worsens their disadvantage."

¹⁸ Sanchez Barba, Mayra G. "Keeping Them Down": Neurotoxic Pesticides, Race, and Disabling Biopolitics." *Catalyst: Feminism, Theory, Technoscience*, vol. 6, no. 1, 2020, p. 1f+. *Gale AcademicOneFile*, link.gale.com/apps/doc/A630064953/AONE?u=csumb_main&sid=AONE&xid=ef170b09. Accessed 19 Dec. 2020.

[12:58]

One study found that Monterey County had the most exposure cases reported out of the sample of counties back in 2015. To give a clearer image, the number of reported cases was 266, 2-3 of which were reported within 72 hours of each other. ¹⁹

NAHELY:

Several Salinas based community organizations exist solely to combat the harmful effects of chlorpyrifos and other pesticides by raising awareness and pushing for reform on things like drift boundaries. Some of these organizations are the Safe Ag. Safe Schools commission, or SASS for short.

[13:35]

Another local organization, the CHAMACOS Youth Council even began to design and pass out doormats that say,

“!No deje rastro de los pesticidas en su hogar! Limpie sus pies Quite los zapitos”

Or “wipe your feet and remove your shoes”.

After finding that the simple act of using doormats reduced pesticide particulate levels.²⁰

[14:00]

SAM:

Yet, you may be asking why the EPA or any other government agency had banned the chemical...

[DEMOCRACY NOW! INTERVIEW SOUNDBITE WITH EARTHJUSTICE]:

¹⁹ Bergamin, Alessandra. (2019, February 8). How a team of researchers and high school students in California are working together to reduce pesticide exposure in children. Retrieved from <https://ensia.com/features/pesticide-exposure-california-children-farmworkers-agriculture-chamacos/>.

²⁰ Bergamin, Alessandra. (2019, February 8). How a team of researchers and high school students in California are working together to reduce pesticide exposure in children. Retrieved from <https://ensia.com/features/pesticide-exposure-california-children-farmworkers-agriculture-chamacos/>.

We filed a petition in 2007. We had to sue the EPA to act on that petition. Finally the EPA proposed the ban in 2015, ah and then of course we had a deadline that took us into the next administration. It was one of the first acts by Scott Pruitt, even before making this decision he met with the CEO of DOW, the CEO contributed one million dollars to President Trump's inaugural fund. Scott Pruitt met with the agricultural trade group and of course when the deadline came he directed EPA staff not to finalize the ban, tear it up essentially, and say that they wanted to study it for five more years instead of working to save the children.²¹

[14:50]

SAM:

This shows that E.P.A. has completely abandoned any commitment to protecting children from this extremely toxic chemical when their own scientists recommended twice to ban it. The science is being overridden by politics," said Erik D. Olson, senior director for health at the Natural Resources Defense Council. The environmental group Earthjustice accused the Trump administration of "fudging the data" to reach its conclusion." ²²

MARK:

Using harmful pesticides like chlorpyrifos in the agriculture industry--a pesticide that the EPA itself had once deemed deserving of a nationwide ban--in farming communities which are composed of an overwhelming majority of Latinx population is a textbook example of environmental racism.

Even if the application of chlorpyrifos and other pesticides like it lacked the intention of doing lasting damage to these communities, it is as Lauren Pulido [sic]²³ describes it: merely the difference between white privilege and white supremacy.

[16:00]

It is white privilege if growers used their harmful pesticides whilst being unaware of the dangers it presented to their workers and the community, because they are afforded the luxury to be unaware. But it is white supremacy if they continued to use the pesticides, knowing they were a threat to the community's health.

²¹ Democracy Now! (2019, July 23). The "Outdated Pesticide" chlorpyrifos is linked to a range of health issues. Why isn't it banned?. Retrieved from https://www.youtube.com/watch?v=_6azVrN6P6o

²² Friedman, L. (2020, September 23). E.P.A. Rejects Its Own Findings That a Pesticide Harms Children's Brains. Retrieved from <https://www.nytimes.com/2020/09/23/climate/epa-pesticide-chlorpyrifos-children.html>

²³ CORRECTION: Laura Pulido

We will leave it up to you to decide if the actions of Scott Pruitt and the EPA were white privilege or white supremacy.

[16:31]

NAHELY:

There have been efforts in banning Chlorpyrifos outside of Monterey County and California. Chlorpyrifos was banned statewide in Hawaii in 2018, making it the first complete statewide ban of Chlorpyrifos. As of 2019, California became the third state, after New York, to ban Chlorpyrifos statewide, however experts have stated that it could take up to two years to realistically phase chlorpyrifos out of California completely. Governor Gavin Newsom has also proposed \$5.7 million in funding to find new sustainable alternatives to Chlorpyrifos.

[17:10]

SAM:

Lastly, some workers have been actually able to receive some form of financial compensation for their exposures to the pesticide. Such as 27 workers winning a lawsuit against Reiter Berry Farms, who is contracted to grow for Driscols out of Monterey County, for a 2017 incident became sick after exposure. They will be compensated \$200,000 for the incident.²⁴

[17:40]

CREDITS NARRATOR:

Executive producers of the OtterPod are Dr. Sara Salazar Hughes and Liz Zepeda, theme music by Eric Mabrey, and our host(s) were Mark Cox, Nahely Castro Romero, and Samantha Chavez. Audio mixing and Script writing were also by Mark, Nahely, and Sam.

[18:00]

And from the bottom of our hearts we'd like to thank you for listening to the Otter Side.

²⁴ Bay City News. (2020, January 13). Pesticides sicken workers, Monterey co. berry grower to pay \$200K. Retrieved from <https://patch.com/california/watsonville/pesticides-sicken-workers-monterey-co-berry-grower-pay-200k>

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