

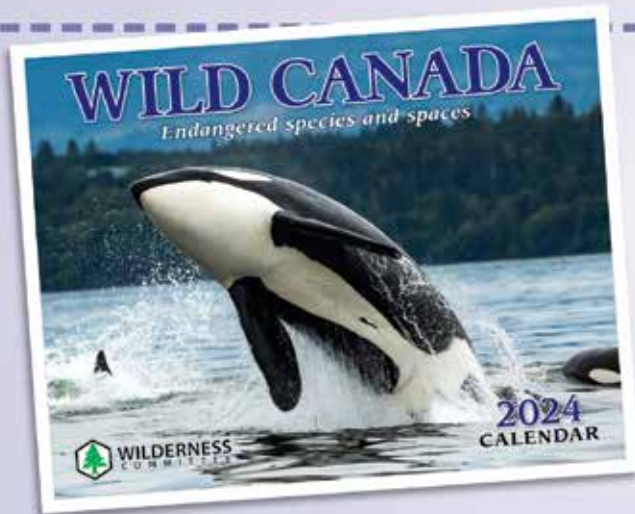
Watershed

# Sentinel





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## Burnt pine

## Aspen

(Natural Fire Stop)

## Stop the Spray

## (P14)

## Features



### Stop the Spray

Conifer farming is drenching BC forests in glyphosate, and worsening an already flammable situation.

### Food In/Security

There are so many factors – from huge agri-corps, supply chains, and trade treaties to climate change and the affordability of land – that influence the abundance of food. Resilient solutions support land, water, growers, and democratic sovereignty.

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Sinixt Elder and cultural leader Shelly Boyd  
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## Editorial

Delores Broten

### Earth to Humans

Life is so interesting, especially as you slow down and examine new and old memories. Human interactions are intriguing, not to mention the natural world and the bigger knowledge of what biology reveals, showing all Earth's living creatures in their complex interdependence. Add in history, geology, astronomy... it's all astounding enough for a lifetime.

And then there is this unbelievably ugly side to humans. It seems to pop up everywhere: greed, racism, land grabs, sexism of many varieties, aggression and violence toward other humans and the natural world. It is part of our species, along with simple kindness, generosity, heroic actions, and a great capacity for love.

How to reconcile these opposites?

Slow down, look around. Sit in a forest. Sit by the ocean as it comes and goes. Stop. Breathe. Heal.

—Delores Broten, Comox, BC, September 2023

### At the 'Shed

**Congratulations to Odette Auger**, who won four Native American Journalism Association awards this year! Two of her winning pieces (including her first-place win) are in the Best Environmental Coverage category, for pieces published in the *Watershed Sentinel*: "Protecting Spirit Bears and their Relations" (WS Oct-Nov 2022) and "No borders for Ki?lawna?" (WS April-May 2022). It's wonderful to see Odette's work recognized and honoured at a high level, as it deserves to be.

**Needed: proofreaders!** Big thanks to Kathryn Hazel, who has served many years as a diligent proofreader but is now moving on. This leaves a vacancy in our volunteer proofreading team... so if you want to be the first to see the new issue and help catch mistakes, contact [editor@watershedsentinel.ca](mailto:editor@watershedsentinel.ca)

**Moving on but not out!** Founding editor Delores is backing away from the day-to-day production of the magazine. Thank you for all the kind and amusing cards and messages, and looking forward to time for tea!

**Correction:** Contrary to the author bio on "ELF: The hard work of defending old growth forests" (April/May 2023), Maggie Paquet lives in Port Alberni, BC.

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**Thank you**, donors, monthly donors, and bundle subscribers. Without your steady support, financial and moral, we would find it much harder to keep publishing.

## Phosphorus discovery a big deal

# Electric Eldorado

**A mother lode of phosphate** discovered in Norway could supply phosphorus for electric vehicle batteries, solar panels, and fertilizer for at least a half a century. Norge Mining, which discovered the deposit in 2018, announced earlier this year the yield is estimated at 70 billion tonnes.

The find comes at a critical time for many green technologies. Europe is facing supply shortages of the mineral after Russian exports were curbed. Phosphate fertilizer is essential to global food production, but its runoff causes toxic algal blooms and produces planet-heating methane.

—*www.euronews.com*  
July 10, 2023

## Air pollution: bad across the board

# Triple Threat

**Air pollution** speeds the progression of lung diseases, helps drive the rise of antibiotic resistance, and may be contributing to catastrophic losses in insect biodiversity, three new and unrelated studies show.

UK research that tracked over a quarter-million people found connections between air pollution levels in neighbourhoods and the probability of developing lung illnesses, and then the onset of multiple illnesses and death.

A global study that analyzed two decades of data from over 100 countries found air pollution is also contributing to the worldwide health threat of antibiotic resistance. Previous research suggests the mechanism: nano-particles of PM2.5 pollution can contain antibiotic-resistant bacteria that may be inhaled by humans and transferred between environments.

Another global study has found air pollution could also be contributing to global declines in insect populations, even in remote wilderness areas. Flies exposed to air pollution for just 12 hours were found to be unable to reliably navigate a Y-shaped tube “maze” with one branch leading to food or sex pheromones.

—*www.theguardian.com*  
August 7 and 11, 2023  
—*www.phys.org*, July 13, 2023

## EC proposes first soil protection law

# Save Our Soils

**The European Commission** has proposed its first law to monitor the health of soils, fertilizer use, and erosion. Though it lacks binding targets, the proposed bill aims to repair the EU’s agricultural soils – 60% of which are considered degraded – by mid-century.

The bill would help to mitigate fertilizer overuse and peatland degradation – drivers of both greenhouse gas emissions and biodiversity loss. The European agri-food industry criticized the proposal for not going far enough considering the “worrying” state of EU soils.

—*www.theguardian.com*  
July 6, 2023

## Military climate accountability

# No Exemptions

**Win Without War**, together with 26 other groups, has released a statement demanding that the US’ new *National Defense Authorization Act* be free of provisions that would sabotage efforts to apply climate accountability to the military or its contracts.

Mandating emissions reporting from defense contractors is a vital step to ensuring accountability and action on emissions. US participation in the 2005 Kyoto Protocol negotiations ensured that military emissions would be largely exempt from other efforts to curtail greenhouse gases. The 2015 Paris Accords only call for voluntary (not mandatory) reporting of military emissions.

—*Critical State Newsletter*  
August 17, 2023

## Need vs greed in Uruguay

# Thirsty Google

**A plan to build** a Google data centre that will use millions of litres of water a day has sparked anger in Uruguay, which is suffering its worst drought in 74 years. Water shortages are so severe that a state of emergency has been declared in Montevideo and the authorities have added salty water to the public drinking water supplies, prompting widespread protests.

Google has bought 29 hectares of land to build a data centre in Canelones department, in southern Uruguay. The centre would use 7.6 million litres of water a day to cool its servers – equivalent to the domestic daily use of 55,000 people. Uruguay’s industry ministry says these figures are out of date because the company is revising its plans, and the data centre will be “a smaller size.”

—*www.theguardian.com*  
July 6, 2023

# Letters

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## Enough is Enough - Time to Ditch Fossil Fuels

Twenty-five years ago, when I started writing for the National Farmers Union about the harmful effects of putting more CO<sub>2</sub> into the air, I didn't think global warming would actually affect me personally. Most of the negative effects of global warming were supposed to be hundreds of years into the future, and I would be long dead.

As I write on July 14, according to medical advice, I am effectively house-bound here in southern Saskatchewan due to wildfire smoke. Countries around the world are breaking record high temperatures – records that were set in just the last few years. Meanwhile, grasshoppers, flourishing in the heat, decimate our Prairie pulse crops.

In the last 50 years, the CO<sub>2</sub> levels have headed straight upward – way above any levels of the past 800,000 years. If our temperatures continue to track CO<sub>2</sub> levels, those quickly rising temperatures will translate into heatwaves that will make living improbable or impossible. Why then would provincial governments like Saskatchewan and Alberta accelerate the pumping of more fossil CO<sub>2</sub> into the air, and at the same time fight plans to green up our western electrical grid?

People were smart enough to figure out how to use fossil fuel to power civilization as we know it. The question now is: Are people smart enough to quit using fossil fuel in order to save themselves, their kids, and the animals and the plants around them?

—Stewart Wells, NFU  
2nd Vice-President  
Swift Current, Saskatchewan

## Hey California, We Have An Idea

The irresponsible behaviour of the operators of the Kearl crude oil operation (*Watershed Sentinel* Summer 2023, p 23) requires a response. In March last year, Chevron Canada shipped 583,000 barrels of Kearl crude oil to Chevron Products, USA, in El Segundo (Los Angeles), California using the Trans Mountain pipeline and the tanker *Sea Falcon* [data from AIS and *importinfo.com*]. Shipments of Kearl crude oil to California also occurred in 2020 and 2021.

Is there any chance the good people of California could be persuaded to boycott Chevron until it commits to stop importing Kearl crude oil?

—David Huntley  
Burnaby, British Columbia

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## For The Little Ones...

We support you guys as we hope it will point the way for our little ones to have a chance. All the best to you all, from the brink where the river meets the road and we don't call 911.

—Allan Stewart  
Hagensborg, British Columbia



## The Watershed Sentinel welcomes letters

but reserves the right to edit for brevity, clarity, legality, and taste. Anonymous letters will not be published.

Send your musings and your missives to:

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## Canada supports moratorium

## Seabed Mining

During the 28th Annual Session of the International Seabed Authority (ISA) in July, Canada announced support for a moratorium on deep sea mining in international waters, having already declared an “effective moratorium” on the practice in domestic waters earlier this year. An emerging industry seeks to dredge mineral deposits from the deep ocean’s seabed to cash in on increasing demand for nickel, copper, cobalt, manganese, and other elements. Although a handful of corporations are pushing the ISA to greenlight the practice – including Canada-based The Metals Company – opposition is mounting among Indigenous leaders, policy experts, scientists, and ISA member governments. More than 20 states across Europe, the Global South, and the Pacific have called for a pause, moratorium, or outright ban on deep sea mining.

—Greenpeace Press Release  
July 28, 2023

## Forest protection has broad support

## Yes to Forests

Four in five Canadians want the federal government to protect the remaining boreal forest, even if that means limiting industrial logging. A recent EKOS poll shows strong public support for a range of measures to reduce the impacts of logging, including phasing out clearcutting (81% support), requiring companies to pay a carbon price on wood burning (76%), supporting foreign laws to advance sustainable wood harvesting and Indigenous rights (75%), and ensuring more accurate reporting of logging’s greenhouse gas emissions (71%).

—Nature Canada press release  
August 24, 2023

## Great Lakes contamination unsafe

## Lake Plastic

Microplastics concentrations in Great Lakes water exceed safe limits for wildlife, according to new research from the University of Toronto and International Institute for Sustainable Development. The review found 90% of water samples taken in the last decade showed microplastic counts that could fill the guts of fish and other aquatic wildlife, diluting the nutrition from their regular food.

The main sources of microplastics were textile microfibres, pre-production pellets from industry, tire particles from roads, and foam from construction. Filters on washing machines and on stormwater drains at plastics plants would be simple interventions, the researchers said.

—www.greatlakesnow.org  
August 21, 2023

## Pause on \$33B in green investments

## Oh, Alberta...

A report by the Pembina Institute says Alberta’s hiatus for new renewable energy projects has put on hold 118 projects worth \$33 billion in investment. The projects would provide jobs to keep 24,000 people employed for a year, the report estimates, and would generate \$263M in local taxes and leases for landowners across 27 municipalities.

Several green energy companies say they plan to seek opportunities elsewhere, after the province’s UCP government paused project approvals for the booming sector until February, ostensibly to consider land use and reclamation concerns.

—www.theglobeandmail.com  
August 24, 2023

## Forest practices in the era of fires

## Urgent Overhaul

Nearly half of public lands in BC are threatened by wildfire and the annual cost of fire suppression now averages \$1B in Western Canada, a report by industry watchdog Forest Practices Board reveals. The report calls for an urgent overhaul in forest management to reverse the decades-long buildup of fuel in forest that, combined with climate change effects, “greatly increase the risk of catastrophic wildfires.” The creation of fuel breaks and cultural and prescribed burning were cited as two proactive measures to reduce risk and create more resilient forests.

—www.comoxvalleyrecord.com  
June 30, 2023

## Nation calls for halt to moose hunt

## Open Season



**The Taku River Tlingit** First Nation is calling for a halt to moose hunting east of Atlin Lake, BC after the province’s decision to allow open season on a highly vulnerable local population.

The Nation said the decision “came as a shock” after ongoing discussion with government representatives regarding hunting restrictions, and “substantive scientific evidence and traditional knowledge showing the population’s continued decline.” 76% of the bull moose in the region were harvested by BC-licensed hunters in 2022 (10% harvest rates are the provincial standard).

—Taku River Tlingit First Nation  
August 10, 2023



# The Fish are Talking

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## This year's pink salmon return is making history

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Open letter by Alexandra Morton

**(August 14, 2023) Dear Prime Minister Trudeau, and Fisheries ministers past and present Joyce Murray, Bernadette Jordan and Diane Lebouthillier,**

I am writing to thank you for your roles in what is rapidly becoming one of the most remarkable environmental successes we have seen in this country. The pink salmon returning to southern BC are not only making a comeback, they are making history. In the last few days, the Pacific Salmon Commission has reported the largest number of pink salmon ever caught in DFO test sets along northeastern Vancouver Island. The increase over the last three generations is jaw-dropping!

This is not entirely a mystery. This generation of pink salmon was protected from exposure to salmon farms by the Prime Minister's mandate to remove salmon farms from the BC coast, and by then-Minister Bernadette Jordan's 2020 prohibition on restocking farms in the Discovery Islands. When Joyce Murray took over the portfolio, she maintained the prohibition. And so these pink salmon that are returning in historic numbers went to sea as juveniles in 2022, when all the salmon farms in the Discovery Islands had been closed by the federal Liberal government.

In my recent paper with Dr. Rick Routledge, *Effect of government removal of salmon farms on sea lice infestation of juvenile wild salmon in the Discovery Is-*

*lands* (in press), I examined this generation of pink salmon as they swam through the region. They looked healthier than they have since I began studying them in 2005. Sea lice infestation on this generation was 96% lower than in 2020 when eight salmon farms were operating in the Discovery Islands.

This astonishing pink salmon rebound after salmon farm removal is not a one-off event.

In 2003, following a profound pink salmon crash, the province of BC enacted the Broughton Archipelago Action Plan wherein adult farm salmon were prohibited on the Broughton pink salmon migration route for one year. That generation of pink salmon survival surged to 34% [Beamish et al, 2006]! Typical pink salmon survival is 2-5%.

In 2022, the pink salmon returning to the Ahta River increased tenfold in a single generation, after the salmon farms near that river were removed by the Broughton Archipelago Transition Initiative.

Also of note, the 2023 Fraser River sockeye test fishery is showing a remarkable increase over the previous three generations. These sockeye passed through the Discovery Islands as juveniles in 2021, when all the salmon farms along the narrow channels had been removed. DFO has increased its pre-season estimate of the Early Stuart sockeye return by 50%. This population had to navigate the dev-

astating Big Bar slide and yet their offspring are showing an uptick in survival!

I understand there will be claims all of this is a coincidence, unrelated to your efforts to remove salmon farms. However, it would be wrong to ignore the repeated strength of the growing evidence that removing salmon farms increases wild salmon – first by the province of BC, then the Broughton First Nations, and now your government, which removed salmon farms from the Fraser River salmon migration route. It will be important for you to review returns for Quatsino, Gold River, the Central Coast, Port Hardy, and Clayoquot Sound to determine if those heavily farmed regions have enjoyed the same remarkable rebound.

Thank you to each of you for your role in allowing this generous fish to reach the open ocean – the fish who feed the trees that are drawing the dangerous levels of carbon out of the atmosphere. This is shaping up to become the greatest environmental success of any Canadian government.

With gratitude,  
Alexandra Morton

Alexandra Morton is a marine biologist living on the BC coast. She has been studying the impacts of salmon farming on wild salmon since the 1990s.



# Dear Readers

**A crucial time** to support human-powered media



These are perilous times for media (especially local news and print media), and Canadian media more than most – with corporate concentration peaking, thousands of layoffs, big tech blocking Canadian news links on their platforms, and hundreds of outlets closing.

As the pace of news accelerates, the online world gets more and more cluttered (and bizarre, as AI moves

beyond algorithms and starts to create the actual content of the internet!) – and it is getting harder to wade through the ads, fluff, disinformation, and junk to find what you want. In this context, print publications are becoming a uniquely valuable way to get information and perspectives curated by an actual human.

Just as we put time and thought into what we publish, you can take time to think about our articles, whether you read them online or in print. We're prouder than ever of our three-decade print record, and we see a crucial place for our small, independent magazine in today's media landscape – even as it becomes ever more challenging to survive in that landscape.

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In gratitude,  
Delores Broten, Editor

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# Peace and Unity

## Summit recognized the power of the land to unite

by Sidney Coles

The third annual Wet'suwet'en- and Gitksan-led Peace and Unity Summit in Smithers was a chance for Indigenous leaders from territories across BC and NGOs from around the world to come together and get real about their environmental concerns. It was also a chance for participants to learn more about Indigenous governance and traditions when they were hosted at a feast by members of the Gitksan nation in Tse-kya (Hagwilget).

Top of mind throughout the gathering was the ongoing fight to protect the health of BC waterways: the Skeena, the Bulkley, the Morice, the Fraser, all of which support the spawning and runs of chinook, pink, chum, sockeye, coho, and steelhead. The wildfires that were erupting to the south and east of Smithers at the time made the focus of the gathering that much more urgent.

Most importantly, according to event coordinator Gaylene Morris, the summit provided a safe space for people from diverse communities to come together and talk about their experiences, concerns, fears, and hopes for the future, among friends.

Gitwilgyoots Hereditary Chief Yahaan (Donnie Wesley), known for his stand against the elected officials of the Lax Kw'alaams band to keep Petronas from building a \$11.4B LNG liquefaction plant on Lelu Island in the Skeena estuary, agreed. "It's good to be around people who have the same agenda as you do."

Given who was in the room, the agenda was far-reaching, but it was also local. The food security of Indigenous and non-Indigenous communities from north to south along the coast as well as in the interior of BC is at stake. What happens upstream impacts everyone downstream.

Getting delegates out on the land and on the water was a priority for the organizers who wanted to show them, first hand, what is at stake in their efforts. At Witsēt Canyon, the delegates could see salmon moving up the river to their spawning grounds and the fisherman lowering their nets in to catch them. A rafting trip from Morice Lake along the Wedzin Kwa to Unist'ot'en gave



When we re-occupy the territory, we feel like we are **in alignment** with natural law, Indigenous law.

—Sleydo'

them the chance to dip their cups in and taste its pristine glacial waters, a luxury offered now in very few of the world's rivers and lakes.

The rafters were welcomed by the drumming and singing of Ts'akē ze' (Chief) Howilhat (Freda Huson) and her sister Brenda Mitchell and niece Karla Tait, who have expanded Unist'ot'en camp to help others reconnect with their culture and to teach land-based healing and wellbeing.

The healing power of the land and the water is something Sleydo' (Molly Wickham) attested to on the final day of the summit. "When we re-occupy the territory, we feel like we are in alignment with natural law, Indigenous law." It was Sleydo's violent arrest during the RCMP raid of 2021 that made headlines around the world. And she's clear, at least for herself, that the summit is about healing and about the future.

For the representatives of international NGOs from as far away as Hawaii and New York like Khalsa Aid, TREC, and the Sunrise Movement, the chance to get out on the territory was an experience of a lifetime. But hereditary Chief Woos (Frank Alec) cautioned that he wants more than just fond memories to come of their visit, reminding delegates of the gravitas of their experience and its grounding in Wet'suwet'en hereditary law and land rights:

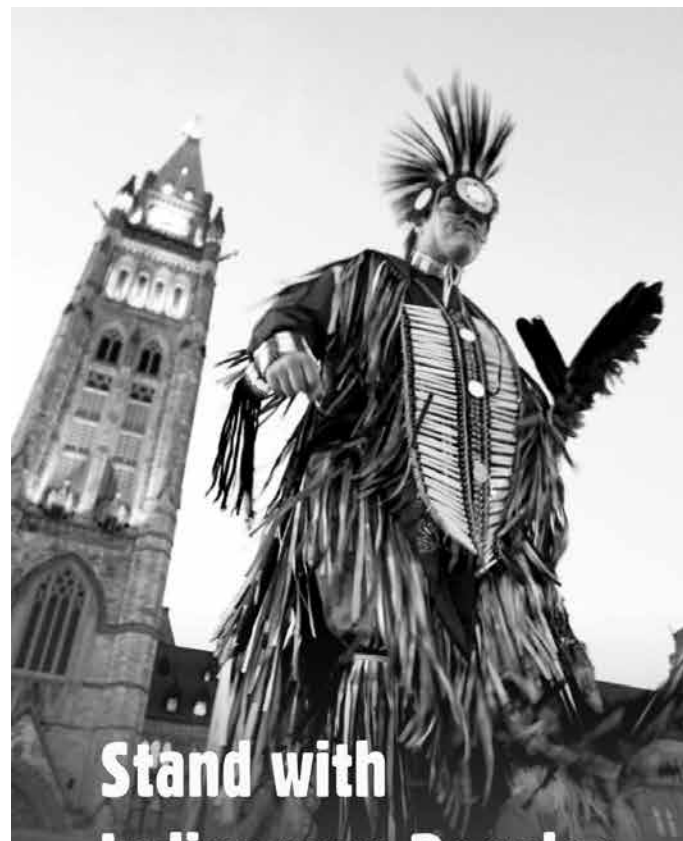
*"The water you drank, this is pure and this is real. This is water that comes from the mountains and the glacier. The fish that you saw come back every year. That's the messaging you can bring back to your relatives and your friends and your organizations. And also that the struggle is not only on the land. The struggle is for the scholars to keep in mind that there are some documentations that need to be looked at. Delgamuukw-Gisday'wa – the lawyers need to look at these documents and make them real."*

Indigenous speakers honoured their ancestors, recognizing them as guides in their fight for the health of the land and water.

Shannon McPhail, founder and director of the Skeena Watershed Conservation Coalition, quoted her old friend, environmental advocate Bruce Hill, to describe her sense of hope for the future. "When you get good people together, magic happens."

Despite external narratives that often work to sow division within communities and organizations, a tangible sense of solidarity emerged out of the summit. Mike Ridsdale, conservation biologist and brother to Wet'suwet'en hereditary chief Na'moks, captured the sentiment when in his closing remarks he said, "We are storytellers, we carry our own history and today [I am part of your] story as you are part of mine. Let's make it the best story we can."

Sidney Coles PhD, DPE candidate OISE, is an equity and human rights advocate and a recent transplant to BC.



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# Right to Survival

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## Canadian youth are challenging federal climate inaction

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by Odette Auger

**As atmospheric carbon continues to rise, 15 Canadian youth are waiting to hear if their voices will be heard in court, in *La Rose et al. v. His Majesty the King (formerly her Majesty the Queen)*.**

The case highlights the intergenerational equity aspect of climate change, with *La Rose et al.* arguing that the youth are already being harmed by climate change, and that the federal government is violating their rights to life, liberty and security of the person under section seven of *Canadian Charter of Rights and Freedoms* by failing to protect essential public trust resources. The youth plaintiffs also allege that Canada's conduct violates their right to equality under section 15 of the *Charter*, since youth are disproportionately impacted by the effects of climate change.

On July 10, 2020, attorneys for the federal government filed a motion to stop the case – initially filed October 25, 2019 – from going to court. Fast forward to February 2023, when attorneys spent two days setting out reasons why the case should be allowed to proceed to trial before the Panel of Federal Appeal. The youth are now waiting for a conclusion.

“All we are arguing is that the government must uphold what is basically required for survival,” says nineteen-year-old Ira Reinhart-Smith. Otherwise, the industries and “organizations that are causing these mass destructions and mass changes will never be held accountable.”

All the plaintiffs in *La Rose et al.* were involved with their own climate activism throughout Canada, says Reinhart-Smith. He attended the International Baccalaureate program at Lester Pearson College, and upon graduation, enjoyed focusing on the environmental aspects of marine science. Children's Trust, a non-profit public interest law firm that provides legal services to youth from diverse backgrounds to secure their legal rights to a safe climate, reached out to Reinhart-Smith and the other youth to work together on this case.

“It was an exciting opportunity to scale up the activism that I was doing, which was a lot of protest, a lot of speaking to politicians, a lot of writing letters,” he says. Over time, it just built up “a lot of frustration. We could see that change was not happening fast enough and therefore the courts had to be the answer – because we didn't know what else to do. We feel like we have tried every single avenue.”

The youth are supported by two other organizations: Pacific Centre for Environmental Law and Litigation and the David Suzuki Foundation, which is the lead Canadian environmental non-governmental organization partner.

The lawsuit asks the Federal Court of Canada to declare that the government's conduct violates the *Charter of Rights and Freedoms*, explains Becca Kram, a communications specialist at the David Suzuki Foundation. Preparing and implementing a climate recovery plan to reduce Canada's greenhouse gas emissions would decarbonize Canada's energy system – which would line up with what scientists say is necessary to stabilize the climate system and protect the rights of youth. “This would require the government to curb their reliance on fossil fuels, invest in clean electricity, stop safeguarding polluting industry giants, and set more ambitious climate targets,” says Kram.

### Listening to youth

Reinhart-Smith observes that the case has changed over time. The plaintiffs' ages spanned from ten to 19 years old at the time of filing. Because the case hinges around the experiences the youth are individually facing in their daily lives, different elements have shifted as the youth continue to develop – emotionally, psychologically, and physically. Impacts range from asthma to fibromyalgia, from food security and culture to home and shelter. To have a case lasting over multiple years “has really created an interesting dynamic in the case as we all become more educated and more mature and, I'd like to say, more varied in the way that we're thinking about environmental activism.”

Although lawyers had advised the youths early in the process that the government would likely ask the courts to dismiss the case, it was still frustrating, says Reinhart-Smith. “It seems so against what they’ve been preaching for every single election. You know, ‘We care about this, we want to change this. We are listening to the youth.’”

As Becca Kram points out, “Young people will inherit the planet and bear the brunt of environmental challenges caused by the climate crisis, so their voices are pivotal in shaping policies and practices that prioritize solutions to the climate crisis.” With 15 youth represented from all across Canada telling the government what needs to change and how they want to change it, Reinhart-Smith says it feels like the government is saying, “‘No, this is stupid. We don’t want to listen to this.’ At this point, the justice system is the only one that can hold the government accountable.”

While Reinhart-Smith’s panic has eased up, the fear remains, he says. “Humans need solace. We need a way to know that we’re going to be okay. But I think that can be derived from action.” What’s most important to him is “for us to just be recognizing these people, these places – they’re under a threat, and therefore we must take action and we must contact those who have the power to make the changes.... I think a shift is coming.”

“Parts per million are still rising – but so is people’s awareness of this,” says Reinhart-Smith. So even if their case is ignored by the government entirely, he’s “still extremely proud of how much we’ve just connected to people. If everyone is working together on these multifaceted issues, [it allows] for a lot of amazing things to happen.”



**All we are arguing is that the government must uphold what is basically required for survival.**

“And a lot of amazing things are happening. I’ve seen so much good in a lot of these circles. That gives me strength to keep going, hope for the future, which is a necessity in all of this.”

*This story is part of a series of profiles of young activists.*



# Sue Big Oil

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## We need a class-action lawsuit to recover local climate costs

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by Andrew Gage

**In 1998, a secret Shell Oil document discussed a hypothetical scenario in which severe storms, fuelled by climate change, result in a class action lawsuit being filed against fossil fuel companies (and the US government) for “neglecting what scientists ... have been saying for years: that something must be done.”**

And yet, even after that memo, nothing was done. In fact, Shell and other fossil fuel companies worked to delay action on climate change, allowing them to continue making massive profits, while expanding the heat-trapping layer of fossil fuel pollution that causes climate change.

For Multnomah County, Oregon, it was not a severe storm, but the 2021 heat dome and the associated deaths and costs, that convinced it to sue global fossil fuel companies for US\$50 billion this past June. More than 40 US local and state governments have already launched similar lawsuits.

The Sue Big Oil campaign, launched in June 2022, argues that BC communities also desperately need to file a class action lawsuit against global fossil fuel companies.

There are two main reasons.

First, we need to protect taxpayers and communities: we need help paying for the massive costs that climate change currently imposes on our communities,

which will only get worse. The Insurance Bureau of Canada estimates that Canadian local governments need about \$5.3 billion a year to keep their residents safe from the impacts of climate change. Climate costs can be as dramatic as the deaths from the 2021 heat dome or the billions that Abbotsford and Merritt need to rebuild and prevent future flooding. Or they can be as invisible (but nonetheless real) as damaged roads and overwhelmed storm drains from increased rain and storms.

It would be fiscally irresponsible of our local governments to continue passing these costs onto taxpayers without making good-faith efforts to recover a fair share from the industry that has made unprecedented profits causing the problem.

Second, we need to shift the economic factors that convince fossil fuel companies to prioritize short-term profits ahead of a sustainable planet. Oil, gas, and coal look like wealth-creating opportunities, not just to the companies themselves, but also to investors, governments, and even the public, as long as they pay nothing for the harm that their products cause. These companies have known that their products would cause climate change since the 1960s and have consistently used their influence to weaken climate policies and advocate for fossil fuel expansion.

These strategies have worked out very well for wealthy executives: Shell’s profits doubled to a record \$40 billion in

2022, alongside record-breaking profits at other global oil giants.

In 1992, the world’s governments agreed to take action to stabilize greenhouse gases in the global atmosphere at a safe level. The fact that more than half of the fossil fuel pollution in the atmosphere has occurred *after* that commitment is due in no small part to the efforts of the fossil fuel industry. We may all be responsible for climate change, but that means that the fossil fuel industry is also responsible and must pay for a share of the harm that it has knowingly caused.

Thousands of British Columbians have already signed the Sue Big Oil declaration, asking their local government to work to keep us safe from the impacts of climate change. We ask that local governments work together to bring a class action lawsuit against fossil fuel companies and to set aside \$1 per resident for that purpose. By pooling resources, local governments can keep the costs of this case manageable. So far, the municipalities of Gibsons and View Royal have signed on, and Sue Big Oil teams in many other communities around the province are asking their local governments to follow suit.

Sometimes people worry that a lawsuit against fossil fuel companies won’t solve climate change or is a distraction from “real work.” Personally, the Sue Big Oil campaign gives me hope. Without a financial incentive for change, the fossil fuel industry will continue to lobby vig-



ously to prevent governments from doing anything that might reduce its profits.

Sue Big Oil uses existing laws to directly confront those “profits” and insists that fossil fuel companies take responsibility for the harm that they cause. We can even sue global companies like Shell and ExxonMobil for their global emissions because the harm happened in Canada.

While a lawsuit to recover local government climate costs may take some time and is not guaranteed to succeed, the moment the case is filed, companies will need to notify their shareholders that they are being sued, which will affect business decisions. A recent review of climate lawsuits by the Grantham Institute at the London School of Economics demonstrates that fossil fuel industry stocks take a hit both when cases against them are filed and when they are won.

The goal of Sue Big Oil is to recover costs of climate change, but also to transform how BC communities understand the impacts of climate change and the responsibility of the fossil fuel economy for those costs. The alternative is that we continue to pretend that our governments will put our safety ahead of short-term economic profits in the fossil fuel economy. I hope that you will join us in demanding that our governments grapple with the real costs of climate change and take concrete steps to hold global fossil fuel companies accountable.

Andrew Gage is the head of West Coast Environmental Law’s climate program and part of the Secretariat to the Sue Big Oil Campaign.

## What you can do to **help** Sue Big Oil

- Sign the Sue Big Oil Declaration at [www.suebigoil.ca](http://www.suebigoil.ca).
  - Get your friends, neighbours and family to sign too!
  - Share about #SueBigOil on social media.
  - Volunteer with the growing Sue Big Oil movement.
- Contact us at [info@suebigoil.ca](mailto:info@suebigoil.ca)



**SUE  
BIG OIL**

Sign the Sue Big Oil **declaration** to hold fossil fuel companies accountable for their fair share of climate costs.

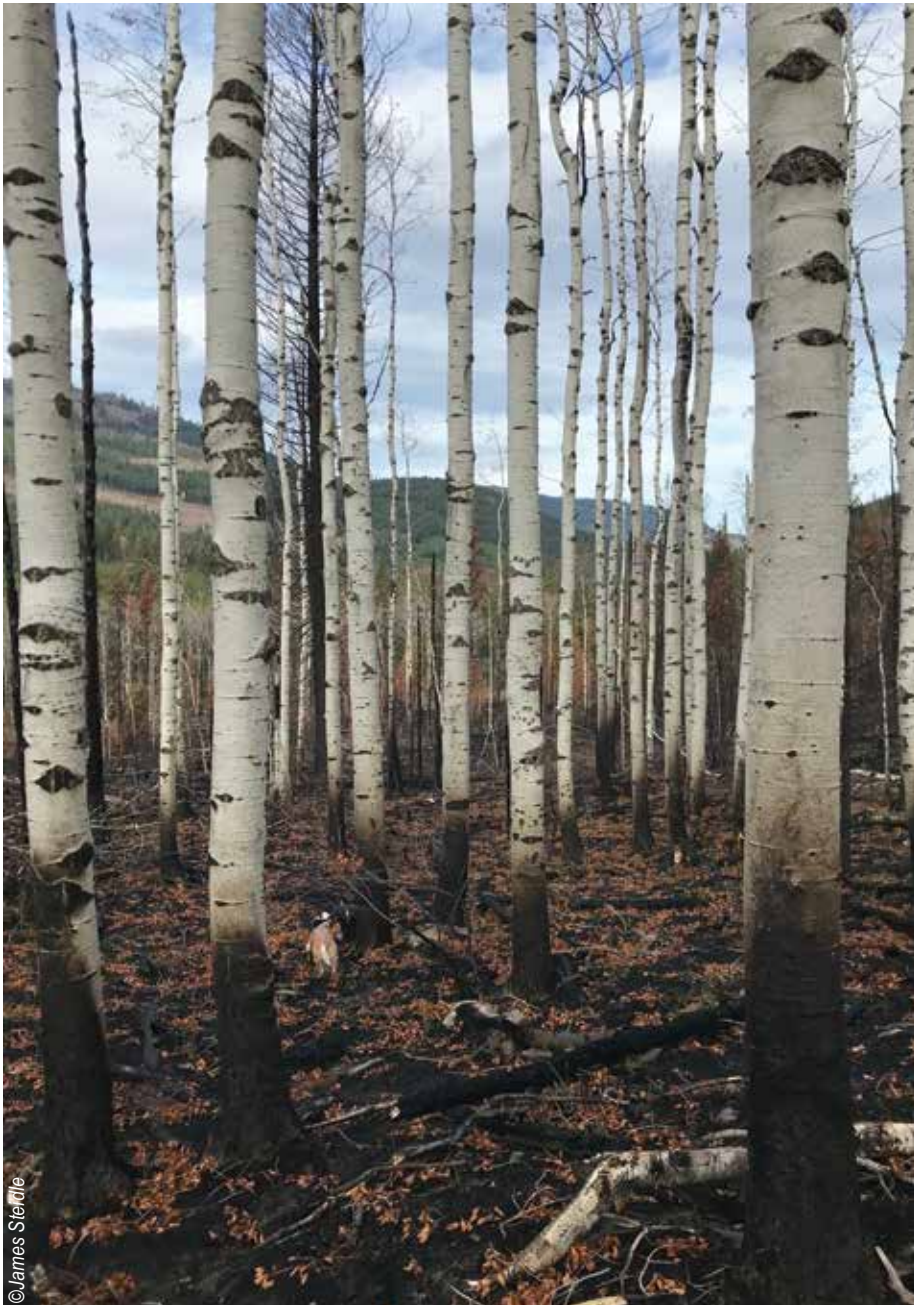
*\* Learn more at  
[www.suebigoil.ca](http://www.suebigoil.ca)  
or scan the QR code →*



THEY KNEW. THEY PROFITED. THEY NEED TO PAY THEIR FAIR SHARE.

# Stop the Spray

Conifer farming is drenching forests in glyphosate



©James Stedie





by Jen Groundwater

Thousands of hectares of Canadian forest are sprayed every year with a weed-killing agent for the sole purpose of killing off grasses, shrubs, and deciduous trees.

Yes, really.

It sounds unbelievable, but in the eyes of Canada's forest industry, maples, alders, aspens, birch, ferns, fireweed, bluejoint grass, every kind of local berry, and other native species are considered weeds or pests. So they are removed, sometimes through a manual process called brushing, but more often by helicopters spraying large quantities of glyphosate.

Glyphosate is also in Roundup®, which was originally invented and sold by Monsanto but is now owned by Bayer. In 2015, the International Agency for Research on Cancer (IARC) concluded that glyphosate is “probably carcinogenic to humans.” Since then, Roundup has been banned for cosmetic use in many places, and a quick Google search reveals that thousands of Roundup lawsuits are ongoing against Monsanto and Bayer, with almost US \$11 billion in settlements paid out to date, many to people who claim exposure to Roundup gave them non-Hodgkin's lymphoma.

So why in the world is this product routinely sprayed on Canadian forests?

Because when native species begin to grow in a replanted cutblock, they compete for space, light, moisture, and nutrients with commercially desirable conifers, which are naturally glyphosate-resistant.

### Weed those trees – it's the law

Canada is one of the world's biggest pro-

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## The use of glyphosate has numerous negative effects, including creating a highly flammable landscape.

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ducers of softwood lumber. According to *Statista.com*, in 2022, the value of our lumber and other wood product exports was approximately \$22.16 billion. Naturally, legislation protects this important source of revenue, often to the benefit of logging companies – and at the expense of forest (and possibly human) health.

In British Columbia, for example, the *Forest and Range Practices Act* requires logged areas to be replanted with seedlings that must grow within a certain time into a free growing stand (“a stand of healthy trees of a commercially valuable species, the growth of which is not impeded by competition from plants, shrubs or other trees”).

The pressure to create a viable crop of trees is real. BC's forestry companies can be financially penalized if their replanted stands don't achieve free growing status within the mandated period.

The result is that thousands of hectares are sprayed every year, creating a tree-farm monoculture that's less hospitable to wildlife, insects, fungi, and fish than a mixed-wood forest. Not only that, but the use of glyphosate has numerous other negative effects, including damage to waterways, reduced carbon sequestration, and a highly flammable landscape.

### Please don't feed the wildfires

In June 2023, the British Columbia Forest Practices Board (BCFPB) published *Forest and Fire Management in BC: Toward Landscape Resilience*, a special

report that opens with this astonishing acknowledgement of culpability:

*“The way forests and fire have been managed in BC over the last 100 years has increased the scale and intensity of current wildfires and decreased landscape resilience. In 2017, 2018, and 2021, BC experienced its three largest wildfire seasons in 102 years of recorded fire, climate, and weather history, affecting 3.4 million hectares of land. If the way forests and fire are managed doesn't change, BC will face many more catastrophic wildfire seasons.”*

To be clear, the report doesn't make any mention of glyphosate in fueling wildfires. But the indirect link is impossible to ignore: by regularly removing deciduous trees from cutblocks (primarily through the use of glyphosate), the forestry industry creates conditions that increase the risk and intensity of wildfires.

This is because, as the *British Columbia FireSmart Begins at Home Manual* explains (and many studies have proven), “coniferous trees are highly flammable and deciduous (leafy) trees are much less flammable.”

In a 2019 report produced for the BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development, certified wildland fire ecologist Robert W. Gray is quoted as saying: “The effect of fire behaviour associated with deciduous vegetation that is treated

*Continued on Page 16* ⇨



with glyphosate is not well documented. It is expected that the fire hazard in dead stems following either manual or chemical treatment would be high because dead aspen burns very hot.”

This same report says: “Forest management in BC seeks to balance all values ascribed to the forest, with the overarching objective of establishing and maintaining healthy and diverse forests.” However, forestry policy still primarily prioritizes the timber supply, which is why thousands of hectares of BC’s so-called Crown land are treated with glyphosate annually (11,000 ha in 2018 alone).

Wildfires are destructive and terrifying, with a host of negative impacts ranging from damage to human-made structures to vastly increased carbon emissions. They are also expensive. The BCFPB notes that during the 2021 fire season, \$800 million was spent on direct fire suppression – and estimates that indirect costs could be as high as \$24 billion.

With Canada’s worst-ever fire season still burning hot and unpredictable (with over 15.2 million hectares destroyed nationwide as of August 28, 2023, and 1.7 million ha in BC alone), we must pursue every initiative that might reduce the risk of fire. Deciduous or mixed forests are more fire resilient – one more reason to stop the spray.

### **Ecosystem health**

In terms of ecosystem health, eliminating species like aspen and birch makes no sense because they’re pioneer species, explains James Steidle of the advocacy group Stop the Spray BC: “They help build soil for conifers, they improve watershed function, they’re important for biodiversity, and they provide food and forage for moose, beaver, and birds.”

Glyphosate is used in forestry nationwide (except in Quebec, where it was banned in 2001). But only BC doesn’t alert the public to its imminent use.

Both BC Timber Sales (which logs on so-called Crown land) and private logging companies produce pest management plans delineating their intentions for spraying or manually removing vegetative “pests” every five years, but these plans are general in nature, with no indication as to exact locations or times where activities will be carried out. Public feedback is accepted when the plans are first published, but there is no obligation to listen or respond to people’s concerns.

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**We don’t know where they’re going to spray, and they don’t have to tell us.**

—James Steidle of *Stop the Spray BC*

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At least two weeks before a pesticide is applied, a “notice of intent to treat” (NIT) must be filed with the Ministry of Environment and Climate Change Strategy. The NIT must include maps or diagrams showing exactly where the spraying will take place, along with provisions for pesticide-free zones within 10m of bodies of water, dry streambeds, and wetlands.

In other provinces, says Steidle, anyone intending to spray must make this information public, but in British Columbia there is no obligation to provide it to members of the public, even if they ask for it. Notifications are only posted in an area after the spray has been completed.

### **Public health**

In August 2023, the Wilderness Committee raised the alarm about “provincial plans to spray forests throughout the territory of the Ma’amtagila and neighbouring Nations,” near Johnstone Strait, off the northeastern coast of Vancouver Island.

“This is a public health risk. Glyphosate is a probable carcinogen and biodiversity killer. Communities deserve to know at the very least exactly where spraying is occurring and when,” said Charlotte Dawe, conservation and policy campaigner for Wilderness Committee. “There is no avenue within the *Integrated Pest Management Act* that automatically allows a First Nation community or public member access to spray plans. They’re only revealed if the government or industry voluntarily decide to hand them over.”

For decades, BC’s forestry paradigm has prioritized timber supply over ecosystem health and biodiversity. “As our planet continues to warm, biodiversity fades, and forest fires grow worse, does it make sense to keep eliminating the trees with the highest biodiversity values, lowest probability of flammability, and best ability to sequester CO<sub>2</sub> and reflect solar radiation from our forests?” asks Steidle. “Obviously not.”

For him, stopping the spray is an important part of a bigger issue: the desperate need for intelligent management that preserves mixed forests in British Columbia and throughout Canada. “I think the public should be very sceptical about what’s going on in our forests,” he says.

See <https://stopthespraybc.com>  
See also <https://watershedsentinel.ca/articles/why-are-bc-forests-still-set-up-to-burn>

# Brazil's "Green Deserts"

Communities resisting industrial plantations – and GE trees



by Kaitlyn Duthie-Kannikkatt

**In May and June of this year, I was part of an international delegation to Brazil organized by the International Campaign to Stop GE Trees. We travelled around the states of Espírito Santo, Bahia, and Mato Grosso do Sul – epicentres of the production of eucalyptus trees destined to become pulp, paper, biofuels, and other products shipped around the world.**

For thousands of kilometres, on either side of the highway, we passed row upon row of eucalyptus trees. Local communities call these tree monocultures (and other monocultures such as GM soy plantations) “green deserts” – areas of cultivation that appear productive, but are absent of almost any life outside of the single species planted in them.

Part of our goal was to connect with and learn from communities that have been affected by – and resisting – these dense and expansive eucalyptus monocultures for decades. Brazilian pulp and paper company Suzano almost tripled its area of land under cultivation between 2015 and 2020; it now exceeds 1.3 million hectares. Much of this cultivation takes place on land stolen from Indigenous, peasant, and Quilombola peoples (Afro-Brazilian people whose ancestors escaped slavery into the forests and formed their own autonomous communities).

We met with Quilombola communities and representatives from the Landless Workers’ Movement (MST) in Brazil to learn

*Continued on Page 18* ➡

about the impacts these monocultures have had on their way of life and to share information about how the potential release of genetically engineered trees will exacerbate these problems.

### GE herbicide-tolerant eucalyptus trees?

In 2021, Suzano got government approval to commercially release their genetically engineered (GE, or genetically modified) eucalyptus tree in Brazil. This GE tree has not been planted yet, in large part because Suzano markets its products with Forest Stewardship Council (FSC) certification, which prohibits the commercial use of GE trees.

Suzano's GE tree is glyphosate-tolerant, which means that the tree has been genetically engineered to survive being sprayed with glyphosate-based herbicides, even when it is young and more vulnerable, while all the weeds and other plants around it will die. Glyphosate is used to clear the land of other plants in order to prepare tree plantation sites; it is also applied to new plantations in the first few years of growth.

### "An end to everything"

Eucalyptus plantations have severe negative impacts on local communities and ecosystems. Companies repeatedly spray plantations with pesticides (the term "pesticides" includes herbicides, insecticides and fungicides), often from the air, in order

to keep insects and other plants out. The trees themselves are also particularly water-hungry, resulting in lower water tables and frequent drought. Our group met with Quilombola women from the community Angelim II in the state of Bahia, who told us about the impacts that nearby plantation monocultures have had on their community and their territory:

*"The eucalyptus made the river in our community dry up. And the spraying killed off all the wildlife. I grew up seeing so many butterflies but they're not there anymore. My daughter has never seen these things. The plantations are putting an end to everything."*

Suzano claims that its newly approved GE eucalyptus will lower the chemical load. However, this promise was also made by the biotechnology industry for the use of GE herbicide-tolerant crops and it proved false. Herbicide use increased significantly with the use of GE herbicide-tolerant crops in North America and South America. For example, pesticide use in soy production in Brazil increased threefold between 2000 and 2012 after the introduction of Roundup Ready [GE] soy.

As has been observed with GE crops, the convenience of trees that can survive glyphosate will likely result in the use of more glyphosate, more often. In the case of eucalyptus plantations, it will encourage aerial spraying of new plantations where direct spraying of plants on the ground is the current norm.

### Imagining a new way forward

The Landless Workers Movement (MST) in Brazil has been promoting an alternative food and forestry model in Brazil for decades. Our group met with residents from one MST settlement that began occupying a former eucalyptus plantation more than 13 years ago and slowly converted it into a diverse agroforestry haven that produces food to sustain settlement residents and nearby communities.

One MST member spoke about the need to come together to imagine a new way of doing things:

*"We have two settlements that are suffering with aerial spraying [of pesticides]... We have to denounce this now and into the future, networking our struggles together. We have to join hands and tell the world what we're experiencing here, that this is not the future."*

### What is the MST/Landless Workers Movement?

Brazil's Landless Workers Movement (Movimento dos Trabalhadores Rurais Sem Terra or MST in Portuguese) is a mass social movement, formed by rural workers and by all those who want to fight for land reform and against injustice and social inequality in rural areas.

The MST was born through a process of occupying *latifundios* (large landed estates) and became a national movement in 1984. The movement has led more than 2,500 land occupations, with about 370,000 families who have settled on 7.5 million hectares of land that they won as a result of the occupations. Through their organizing, these families continue to push for schools, credit for agricultural production and cooperatives, and access to health care.

—source: [www.mstbrazil.org](http://www.mstbrazil.org)



Suzano and other companies that are pushing GE technology are promoting the idea that the way to reduce the impact of tree plantations is to intensify production, and that GE trees can help. But plantations reduce these territories to “sacrificial zones,” and that won’t change unless we change the whole plantation forestry model and reduce demand for paper products. Lower pesticide use and decreased land use are dangerous myths used to sell “sustainable intensification” as a false solution to the climate and biodiversity crises.

The message we heard over and over again was that people, not corporations, have the solutions to the ecological problems we face. Indigenous and Quilombola communities and territories are not sacrificial zones. They are forging a new path forward that centres on healthy food and a healthy environment for all.

### What’s next?

September 21 is the International Day of Struggle Against Monoculture Tree Plantations. From Brazil to Canada and around the world, people are resisting the industrial tree plantation model and saying to no glyphosate use in forestry and food.

In partnership with the National Farmers Union, the Canadian Biotechnology Action Network will host a webinar on October 26 featuring Quilombola and MST leaders in Brazil who are fighting the expansion of eucalyptus plantations with agroecology. All are welcome. Visit [www.nfu.ca/nfuniversity](http://www.nfu.ca/nfuniversity) for details and to register.

Kaitlyn Duthie-Kannikkatt is a campaigner at the Canadian Biotechnology Action Network (CBAN), which brings together 15 groups to research, monitor, and raise awareness about issues relating to genetic engineering in food and farming. CBAN is a project on the shared platform of the MakeWay Charitable Society. [www.cban.ca](http://www.cban.ca)

For more information:  
World Rainforest Movement booklet on GE Trees:  
[https://www.wrm.org.uy/sites/default/files/2023-05/GE-trees\\_ING\\_simple.pdf](https://www.wrm.org.uy/sites/default/files/2023-05/GE-trees_ING_simple.pdf)

Report: *The Global Status of Genetically Engineered Tree Development: A Growing Threat*  
(Available in English, Spanish, and Portuguese)  
<https://stopgetrees.org/resources/global-status-report>

## Key points and demands

from Quilombola communities and MST representatives:

- The eucalyptus plantation companies have stolen much land from communities, and the communities that were once united are now physically divided by the plantations. The communities demand to have their land returned and demarcated.
- The communities demand the eucalyptus plantations be removed.
- The aerial spraying of agrottoxins using drones and planes is not only spraying the eucalyptus plantations but also the communities, soil, crops, livestock, and water. This and the runoff are killing and poisoning people, pollinators, fish, birds, wildlife, and more. The communities demand an end to the aerial spraying of agrottoxins.
- The eucalyptus plantations have made it impossible for communities to grow their own food and many people have had to leave their land to go to the cities, where they suffer greatly. The communities demand support to grow and have access to healthy food and to develop agroecological and organic practices.
- The eucalyptus plantations have dried up the water, rivers, lakes. The communities demand access to water.
- Suzano is stealing land and breaking the law, but is never prosecuted. The communities demand the laws be enforced to stop Suzano’s illegal activities.
- Traditional communities say no to transgenics.

—Source: “Messages and Testimonies from Quilombola Communities and MST Representatives in Northern Espírito Santo and Southern Bahia about Eucalyptus Plantation Impacts and Potential Impacts of GMO Eucalyptus Trees,” Campaign to STOP GE Trees International (June 1, 2023). (Read the full report at [www.stopgetrees.org/brazil-campaign](http://www.stopgetrees.org/brazil-campaign))



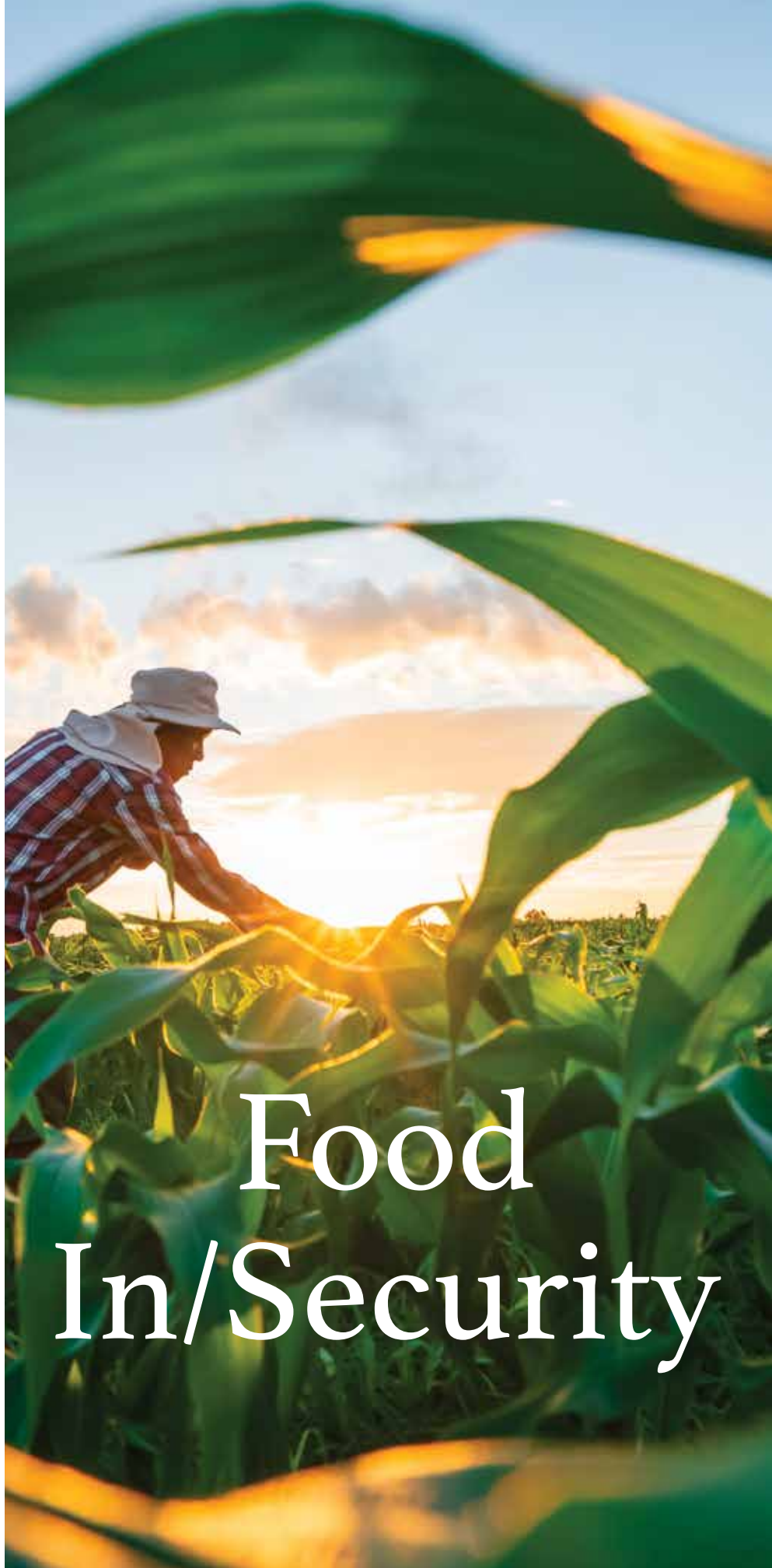
©Nicolas Salazar

It all comes down to land, to water, and to growers. We don't feel that connection very strongly when rushing to the supermarket for dinner. We do start to think about it during snowstorms or droughts, when the trucks don't make it, or any time the shelves suddenly seem empty.

Many factors, from huge agri-corps and globalization to climate change and the affordability of land, influence the abundance of food. Stephen Leahy tours us through some of the factors leading to food insecurity.

GM corn is a prime example of the impact of trade and politics. On the other hand, there is the energy of a new generation of farmers, community-supported agriculture, and other solutions, including grow-your-own. There are a multitude of willing hands around the world working to solve this pressing problem.

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# Food In/Security

# Food Futures

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## Food insecurity is at a critical point, but solutions are known

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by Stephen Leahy

**Food and agricultural policy experts have seriously underestimated the impacts of rapidly changing climatic and biophysical conditions on global food production.**

The number of people facing acute food insecurity has soared to 345 million this year from only 135 million in 2019, according to the World Food Program. That means hunger so severe that it poses an immediate threat to people's livelihoods and lives.

Food security has become increasingly challenging due to extreme weather, water scarcity, plateauing crop yields, soil degradation, and declining arable land. The war in Ukraine and trade disruptions have made the situation worse.

Meanwhile, the global population is expected to increase from 8.0 billion to 8.5 billion by 2030. Meeting the enormous challenge of feeding the world requires, among other things, reliable projections of crop production so policies and resources can be effectively developed and implemented.

The vast majority of recent reports, studies, and crop production models only incorporate changes like temperature, precipitation, and CO<sub>2</sub> levels. This approach omits a much broader suite of other potent global-scale environmental changes that are affecting agricultural productivity.

Here are a few biophysical changes missing in the rosy future-food production projections:

- Increasing extreme events like floods and droughts;
- Declines in pollinating insects;
- Greater heat in a warming climate decreases crop yields by damaging pollen grains. This prevents fertilization, reduces plant growth, and increases mortality;
- Livestock also suffer under heat stress which decreases fertility, weight gain, and milk and egg production;
- Higher CO<sub>2</sub> levels may increase growth in some crops but can also reduce their nutrient levels;
- Increased pests and disease;

- Impacts of biodiversity loss, including declines in pest predators and microorganisms essential to soil fertility;
- Fisheries declines as fish populations move towards the poles to avoid hotter ocean temperatures in the tropics;
- Salinization of water tables caused by sea level rise.

The very latest crop models show substantial climate impacts coming well before 2040 in major breadbasket regions. And that's without accounting for all of the biophysical changes, some of which are impossible to model.

We've had a preview of what the impacts can be after last year's extreme weather affected food production in Europe, the US, China, Pakistan, and elsewhere.

Compounding the problem, agriculture is not only highly vulnerable to the impacts of climate change but is also a major source of greenhouse gas emissions. Agricultural emissions need to fall nearly 40% to help keep warming below 2°C, according to the International Energy Agency. Yet we still need to find a way to feed the world's growing population.

To make this happen, public and private investment and policies are urgently needed to:

- Reduce food waste;
- Limit emissions from livestock and fertilizers;
- Consume less meat and improve alternative proteins;
- Develop climate-resilient crops and livestock;
- Protect soil and water resources while cutting emissions with regenerative agricultural practices.

Feeding the world today and in the future, while reducing agriculture's large carbon footprint, is a major challenge. A big part of that challenge is acknowledging that the entire food production chain, and the economic system on which it's based, is untenable. Luckily, we know what to do.

Adapted from *Need to Know*, June 22, 2023,  
<https://leahy.substack.com>



# The GM Corn Dispute

## Free trade rules threaten Mexico's food sovereignty

by Stuart Trew and Karen Hansen-Kuhn

**In December 2020, Mexican president Andrés Manuel López Obrador (known colloquially as AMLO) announced his government would be taking measures to replace the controversial herbicide glyphosate with sustainable, culturally appropriate alternatives.**

AMLO's New Year's Eve decree also declared that Mexico would end the cultivation and import of genetically modified (GM) corn for human consumption (in tortillas, for example) and, eventually, for animal feed. Most yellow corn produced in the US is genetically modified to resist pests or tolerate herbicides such as glyphosate.

The decree was grounded partly in domestic economic objectives outlined in the 2019–2024 National Development Plan. It was also a direct response to demands by organized farmers' movements and to Mexico's international obligations as a member of the Convention on Biological Diversity (which Canada has also signed) and the Cartagena Protocol on Biosafety. Furthermore, banning glyphosate would serve a precautionary public health role given the herbicide's World Health Organization status as "probably carcinogenic to humans."

While the Mexican reforms had been on the public and political agenda for years, a reaction to the devastating effect of subsidized US corn imports on rural livelihoods, AMLO was finally following through. Mexican environmentalists and

farming groups praised the measures as "important steps in moving toward ecological production that preserves biodiversity and agrobiodiversity forged by small-scale farmers over millennia."

### War plan

On the other side of the fence, US legislators, GM corn traders, and biotech, seed, and chemical industry lobbyists at CropLife International prepared a war plan. Their push included a test of the Canada-US-Mexico free trade deal that replaced NAFTA in 2020 – the USMCA.

Over the past two years, Republican and Democratic lawmakers, along with the Canadian government, have complained that the Mexican measures discriminate against non-Mexican agriculture and are somehow anti-science. The biotech lobby was especially vocal in its demand for a USMCA trade dispute based on allegations that the GM corn phase-out violated the treaty's chapter on sanitary and phytosanitary standards (SPS), which is trade lingo for food-related health and safety measures.

This February, responding to relentless US pressure, the Mexican Ministry of Economy issued another decree clarifying and replacing the one from December 2020. The new decree explained that the prohibition of GM corn for dough and tortillas will not affect trade with the US, since Mexico is nearly self-sufficient already in non-GM white corn. The new

decree also dropped plans to phase out GM yellow corn imports (the vast bulk of all US corn exports to Mexico) for animal feed.

It wasn't enough. On March 6, the United States Trade Representative (USTR) requested technical consultations with Mexico under Article 9.19 of the SPS chapter of the USMCA. Three days later, Canada did the same. This was mainly a formality, the obligatory first step in any dispute involving food safety measures, since the US had clearly made up its mind that Mexico's scientific rationale for the GM corn decree was not good enough.

On June 2, the USTR escalated matters by requesting dispute settlement consultations under Chapter 31 of the USMCA. It cited approval processes around GM corn, cotton, and canola. Canada requested to join those consultations as a third party a few days later. The Canadian government's complaint warns: "When a key trading partner such as Mexico does not authorize biotechnology applications for Canadian agricultural exports, this creates an asymmetry in North American regulatory conditions that can lead to trade disruptions."

"We fundamentally disagree with the position Mexico has taken on the issue of biotechnology, which has been proven to be safe for decades," said US Agriculture Secretary Tom Vilsack, announcing the US escalation. "Through this action, we are exercising our rights under USMCA

while supporting innovation, nutrition security, sustainability, and the mutual success of our farmers and producers.”

The dispute seems aimed at compelling AMLO to scrap the restrictions on GM corn in tortillas and masa, withdraw Mexican plans to gradually substitute GM with non-GM corn in animal feed and other industrial uses, and basically commit to approving, in future, any genetically modified crops cultivated in Canada and the US.

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## The dispute is a defence of a particular **export strategy** dependent on GM-intensive cultivation.

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If the US and Canadian consultations lead to a request to establish a dispute settlement panel, it will be the first test of the USMCA’s far-reaching and intentionally deregulatory food policy restrictions.

### **Draconian food safety rules**

USMCA chapters covering government regulation, including for food-related health and safety reasons (sanitary and phytosanitary standards, or SPS), are positively draconian. From beginning to end, the SPS chapter in the USMCA significantly ratchets up restraints on government policy-making – beyond those which existed in other past and present trade agreements. The USMCA package reflects the deregulatory priorities of the Trump administration and Canadian governments in the service of established biotech interests operating in both countries.

For example, the 11-country *Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)*, to which both Canada and Mexico are parties, includes a dedicated section on trade in biotech products, but it deals mainly with transparency in the GM approvals process and how to respond to incidents of

low-level presence in food shipments of products not authorized in the importing country. In a similar section of the USMCA, the parties “confirm the importance of encouraging agricultural innovation and facilitating trade in products of agricultural biotechnology.”

With respect to food safety standards, the SPS chapter of the CPTPP speaks of not creating “unjustified” barriers to trade, while the USMCA seeks to avoid “unnecessary” barriers – a much vaguer, and therefore more difficult to prove, standard. As mentioned above, Mexico’s GM corn and glyphosate decree was justified on a number of domestic and international grounds. Who should be the judge of whether these popular and democratically enacted measures are necessary?

The US dispute – which Canada has joined as a third party – relies on a half-dozen provisions of the SPS chapter to challenge three related Mexican measures:

1. the non-authorization of US biotech products;
2. the ban on GM corn for tortilla production, and;
3. plans to gradually substitute GM corn for human and animal consumption.

What are Mexico’s options faced with these challenges? To begin with, it’s not clear that the Mexican GM corn and glyphosate decrees, or the failure to approve new biotech “events” (as new products

*Continued on Page 24* ⇨



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are called), can be neatly packaged as sanitary and phytosanitary standards (i.e., as strictly related to food safety or animal and plant health).

As mentioned, the Mexican policies are framed as economic development and environmental measures as well. Were Mexico to defend the policies on economic grounds, they might still run afoul of other USMCA provisions. However, if the policy could be successfully defended as an environmental protection measure, the US dispute falls apart.

The shifting science on glyphosate, as well as disputes about the role that GMs should play in a resilient food system, may play in Mexico's favour. Article 9.6.5 of the SPS chapter gives Mexico the leeway to adopt provisional measures stricter than those in Canada and the US "if relevant scientific evidence is insufficient." In that situation Mexico would be expected to undertake or seek out further scientific studies, which it is currently doing, and adjust the SPS measures as needed.

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### **Not Based On Science?**

In her statement announcing the formal dispute under USMCA, US Trade Representative Katherine Tai said, "The United States has repeatedly conveyed its concerns that Mexico's biotechnology policies are not based on science and threaten to disrupt US exports to Mexico."

Not based on science? For five weeks in the spring of 2023, in an unprecedented series of public events organized by Mexico's national science agencies, Mexican and international biologists, geneticists, pediatricians, agronomists, ecologists, medical doctors, veterinarians, soil scientists, oncologists and toxicologists presented research documenting the "risks and dangers" associated with GM corn and glyphosate-based herbicides. Speaker after speaker presented scientific research that showed risks from the combination of GM corn and its most commonly applied herbicide, including cancer, liver and kidney damage, and a range of diet-related ailments. Mexicans have every reason to demand precaution, since they consume corn at levels far beyond what people in the US consume – on average around 432 pounds of white corn per year, largely in the form of tortillas.

On the one hand, this plays into biotech interests by putting additional pressure on countries to avoid precautionary measures. On the other, it is written with enough room for countries to take the appropriate time needed to determine whether a SPS measure is still appropriate given new information.

### **The politics**

Mexico's corn decrees may affect US exporters more than anyone else, but this does not prove they are discriminatory. The revised decree doesn't affect the bulk of US feed corn exports at all. It's not clear how much of the white corn exports that could be affected are GM, but Mexico only imports about five per cent of its white corn while growing the rest itself. In any case, non-GM producers in the US say they are eager to supply the Mexican market.

So, why wage a hard fight over such a small market – one that Canada is not involved in – and a fight that favours

particular companies over others? Fundamentally, for the US and Canada, there are longer-term reasons for reining in Mexico's ability to determine the nature of its agricultural production.

The dispute is a defence of a particular export strategy dependent on GM-intensive cultivation. Both the US and Canada, having bought into the GM promise, regularly attempt to beat back foreign efforts to chart different kinds of food systems that scientific evidence can show are better for the environment. Canadian and US trade policy with respect to biotechnology is the result of regulatory capture by monopolistic firms.

But backroom trade politics are no way to handle questions as important as the future of food policy in a rapidly changing climate. This case could become an opportunity for the three countries and their civil societies to honestly weigh the minimal trade effects of Mexico's measures against the imperative to build greater resilience and fairness into agricultural markets. Given Canadian and US allegiance with the biotech lobby, that might be hoping too much.

Excerpted from an article originally published in *The Monitor*, June 22, 2023, Canadian Centre for Policy Alternatives. Stuart Trew is the Director of the CCPA's Trade and Investment Research Project and the former editor of *The Monitor*. Karen Hansen-Kuhn is Program Director at the Institute for Agriculture and Trade Policy.

—Timothy Wise, June 23, 2023, [www.iatp.org](http://www.iatp.org)



# Small But Mighty

## Growing beans for flavour, protein, and future-proofing

by Jim Cooperman

**While much of the population loves meat, a growing number of people are adopting a plant-based diet out of a desire to help mitigate climate change and protect the environment.**

University research has found that protein sourced from legumes requires approximately 18 times less land, 10 x less water, 9 x less fuel, 12 x less fertilizer and 10 x less pesticide in comparison to protein sourced from beef. Overall, meat and dairy production uses over 80% of all agricultural land and is responsible for upwards of 18% of greenhouse gases, including methane and nitrous oxide.

A few years ago, after enjoying a meal of delicious home-grown Romano beans at our friend's home, we decided to try growing them. We purchased a package of Borlotti Romano seeds, which can grow upwards of 20 feet high. To accommodate the vines, I built a trellis using two 7.5' x 10' steel meshes made for concrete floors. The plants grew vigorously, and in the fall, we harvested over 25 pounds of nearly mature beans from a 25-foot-long row.

Following our friends' advice, we picked the beans after they turned red, but before they dried out. Processing them involved shelling, steaming for three minutes, and finally freezing. We use the beans in a wide variety of meals by simply steaming them again for about five minutes and then adding them to sauces, stir fries, and homemade burgers. A second row was added last year, and now Romano beans



contribute a sizable percentage of our yearly protein requirements.

### Biodiversity as “insurance plan”

Botanist Richard Hebda has become a passionate advocate for growing beans. As the former natural history curator for the Royal BC Museum and a University of Victoria professor who teaches ecological restoration, Richard has a deep understanding of how society needs to adapt to climate change, which includes ensuring food security. His key principle is resilience – one component of which is to maintain genetic diversity by preserving heritage seeds.

Working with Seeds of Diversity and the Kootenay Native Plant Society, Richard began distributing heritage bean seeds last year. He is encouraging gardeners not only to grow the plants, but also to be “citizen scientists” by recording and sharing

their observations. They are being asked to report when they planted, how well the plants did, and whether they would grow them again. Each of the 183 growers across Canada this year was given three pole varieties and three bush varieties. Fortunately, beans rarely cross-pollinate, so the beans from adjacent plants retain their distinct genetic characteristics.

The effort to preserve heritage plant varieties is akin to the ongoing campaign to protect old growth forests and forest biodiversity. Richard refers to maintaining agricultural biodiversity as an “insurance plan” because the older varieties of food crops may be needed in the future.

Given that only one quarter of the agricultural land in use today would be required to feed the world's population with a plant-based diet, more efforts are needed to promote the growing of plant sources of protein. Utilizing more flavourful options like the Romano bean and other heritage varieties will help, as will using these beans in a greater assortment of recipes. Restaurants, schools, and institutions can also consider that using beans to replace meat in some dishes will better serve the increasing number of people who wish to reduce their meat consumption, thereby helping to protect the environment.

Author, environmentalist and back-to-the-lander Jim Cooperman has lived above Shuswap Lake since 1969. ([www.shuswappassion.ca](http://www.shuswappassion.ca))

# The New Farmers

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Is it possible, without big capital, to start a farm these days?

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by Julienne Isaacs

Krystyna Delahaye didn't always see herself as a farmer. Back in 2012, she wasn't one. Originally from Quebec, Delahaye had moved to BC to work front of house in a restaurant. Then she met Jason Stashko, who was working as a cook in another restaurant.

"We realized we didn't know where the produce (came) from," Delahaye recalls. "In the restaurant industry we lacked a connection with the farmers, and even understanding how food is grown." Soon, the two moved in together and started their own vegetable garden.

Then came a moment when neither of them had employment, and they took another leap, starting a farm apprenticeship in Abbotsford. They loved their season and learned so much, says Delahaye, that they were ready to start a farm the following year.

Delahaye and Stashko started Seed of Life Farm in 2017, with \$2000 combined, on a three-acre rented property in Burnaby that belonged to a church. They kept things small, with direct sales to friends and family and a presence at one farmers' market. They were learning how to farm and how to run a business simultaneously – a much steeper learning curve than they'd expected. Despite the challenges, Delahaye says it was a "good beginning."

The pair farmed there for two years, she says, and then moved to a second location. That next spot wasn't a whole lot more promising: the soil was thick with rock and clay. But then, in 2021, they found a third farm location in north Surrey through the BC Land Matching Program delivered by Young Agrarians.

This land has better long-term potential, says Delahaye: it's "heritage land" that's been farmed for 100 years. Delahaye and Stashko live there with their daughter and grow vegetables, culinary herbs, and edible and cut flowers. "Out here, on this land, there's more of a feeling of permanence, so we feel like we can invest more in our business (and) ultimately feed more people," Delahaye says.

## Land matching

Young Agrarians is a non-profit charitable organization that operates what it calls “a farmer to farmer educational resource network for new and young ecological, organic, and regenerative farmers in Canada.” The organization offers events, training, land access support, mentorships, and apprenticeships, mainly in Western Canada. It has been growing over the past decade, and now has 20 staff and a network that stretches coast to coast.

There’s a general perception, says Dana Penrice, Prairies program manager for Young Agrarians, that farming isn’t a viable career option if you don’t have a family connection to land or access to start-up capital. “We’re active in presenting farming as an exciting, fun, viable option for people to be part of,” she says. “We provide stories and examples of people actually doing it.”

YA provides more than stories, though. In BC, it also links new farmers to land.

Darcy Smith is the land matching program manager for YA in BC. She says the organization started its land access work in the province in 2013 by publishing a land access guide that covered purchasing, leasing and land trust options, and running land-linking workshops.

“After those events, people were saying, ‘I met a landholder, what do I do next? How do you turn that into a relationship that works?’ We hear about a lot of handshake agreements that go really wrong. It’s time-consuming to move a farm business. We were looking for ways to provide additional support,” says Smith.

YA’s executive director Sara Dent connected with the Quebec-based land

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## One of the biggest risks to Canada’s agricultural sustainability is that we really need people on the land.

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matching organization, L’ARTERRE, which helped YA set up its pilot program in BC’s Fraser Valley in 2016. These days, the BC Land Matching Program has six land matchers who are each responsible for overseeing land matches in a particular region.

“Land matchers work one-on-one with farmers seeking land to start or grow their farm business, connect them to resources (and) help them develop a business plan. We work with landholders to help them figure out what their vision is and connect them to resources,” says Smith. “If there is a spark – because it is a matchmaking service – the land matcher facilitates conversations to support the negotiation. The land matcher is there to ensure the questions get asked to the level of detail that will help people on the ground, and that gets put into templates, and we have lawyers review the final documents.”

Since 2016, “We’ve had more than 1,300 people register for the program, 580 of those landholders,” Smith says. “We’ve made 245 matches on 9,694 acres. We’re supporting all production types and scales, from half-acre market gardens to thousands of acres of grazing land.”

Smith says there’s so much competition from development and other competing uses for the best agricultural land in BC that land values have skyrocketed. “In BC, the market value of the land has become uncoupled from the production value of the land, but lease rates are still tied to production values, so you can afford to lease land for farming in a way you could

not afford to buy that land for agriculture,” she says.

Costs are rising for renters, too, and renting can leave farmers in a precarious position. But this is where YA fills a gap: its programming minimizes the odds of mismatch. And Penrice says there’s an urgent need for new farmers in Canada. Lately, she gets a lot of phone calls from older farmers who have land but no successors. “We talk a lot in the sector about sustainability, and we often equate that with environmental sustainability and economic sustainability, but one of the biggest risks to Canada’s agricultural sustainability is that we really need people on the land,” she says.

## Apprenticeships

Four years ago Penrice moved to her partner’s family farm in Manitoba, and these days she heads up apprenticeship programming in the Prairies. Farming in the Prairies can be isolating, she says, and opportunities for new farmers for networking and learning are few and far between. Historically, if new farmers wanted to do an apprenticeship, they’d have to travel to BC or Ontario.

YA is attempting to fill some of these gaps. At the most basic level, the organization offers farm tours and networking events to help people “dip their toes in” and make connections with people in the industry, says Penrice. If new farmers want to progress to the next level, they can apply for an apprenticeship.

*Continued on Page 28* ⇨



Young Agrarians apprenticeships are paid training positions on farms that typically run between eight and 12 months. The program is designed to be immersive, to put apprentices “into the heart of running a farm business, day in and day out.”

Stipend packages vary, but the positions are compensated and farms are required to hold workers’ compensation coverage and insurance. It can be challenging for mentor farmers to pay mentees, but YA helps them apply for wage subsidy grants and set up payroll programs, and even offers resources on workplace communication and conflict. There’s a review process and exit interview at the end.

It was important to YA to set up the apprenticeship program as a paid opportunity for new farmers, explains Penrice. “We don’t want to have any grey lines. There have been some challenges with apprenticeship in Canada, where [it’s a question whether] this is employment or a volunteer [position]. We want to be super clear about that. The paid apprenticeship makes it more attractive to young people to get into the sector.”

In Manitoba, there are about ten farms enrolled in the program. Last year, YA received over 100 applications for just 30 Prairie positions. Interest in the program is growing, and Penrice says it’s not just mentees who see the benefit.

“For some of the mentors it’s so nice to have other people on the farm alongside them. A lot of farmers are motivated by supporting the next generation, and passing those skills along,” she says. “They do get some kind of value of having an employee there in terms of labour, but [that’s not] the main motivator.”

Once new farmers have finished an apprenticeship, YA offers an online “busi-

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## Penrice says there’s an urgent need for new farmers in Canada. Lately, she gets a lot of phone calls from older farmers who have land, but no successors.

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ness bootcamp” that can help participants develop a business plan. And there’s business mentorship programming that pairs new and seasoned farmers; this year, it’s opening to Prairie farmers for the first time.

### “Go put your hands in the dirt”

Smith says that to get more farmers on the land, outreach that bridges the urban-rural divide is critical. “We really want to inspire people and help them find their pathway into food and farming, whatever that looks like – whether they’re curious and want to learn more, or are already in farming and are looking for resources.

Now in their seventh year of farming, Krystyna Delahaye and Jason Stashko have found some of their own assumptions about farmers and farm life are getting challenged.

Delahaye says some people tell her farmers should be competitive, but she thinks there’s enough room for everyone. “Most farmers are very into sharing,” she says. “There are so few farmers, and we all care to keep the trade alive and to feed more people good food. I think farmers want to be there for each other.”

Her advice for the farm-curious? Reach out to an organization like YA and talk to them about your project, she says. “Go onto farms, and live one, two, three, four seasons. Go put your hands in the dirt and try it. When we grow gardens, it’s very

romantic and beautiful, but once we farm it’s a whole new dimension. Start a garden, volunteer, or go and work for a farmer for one season or more to see what it is before entering the world of farming. It’s not just one learning experience that will make you a farmer.” She says it’s a lot to take in, but she leaves the aspiring farmers with one final thought: “It’s worth it.”

Julienne Isaacs is a Canadian freelance writer and editor. A longer version of this article was originally published in *Country Guide* (this version edited with permission of the author).

# Food Matters



## It takes a village

by Arzeena Hamir

**Is it possible to have too much bounty? The long, hot days of August are usually the days that break farmers. After a marathon getting plants seeded, transplanted, and weeded, the onslaught of berries, fruit, root vegetables, garlic, and the never-ending zucchini can actually feel overwhelming. Thank goodness for community!**

Like many small-scale growers, I have multiple outlets for my produce. I am at the farmer's market in Courtenay every Saturday and have a weekly vegetable box program (also known as Community Supported Agriculture) mid-week. I supply several restaurants in town and our local health food store is a steady customer. It takes so much stress off me as a farmer knowing that my food is getting into tummies.

But when every farmer has tomatoes, zucchini, and greens, it can often feel like we're competing with each other to sell to customers. As odd as it may seem, I have found that working with other farmers to aggregate our product actually helps us find new markets. This past year, I helped to establish a farmers' marketing cooperative in my local region so that we could lean on each other to help move our produce.

I'm usually so tired after a Saturday market that I can't imagine heading to another one, but my fellow co-op members are raring to go on Sunday and take my product up to Campbell River to reach customers there. Similarly, they've helped increase the reach of our box program to new communities like Cumberland and Campbell River. We plan our crops at the start of the season so that we have both redundancy and unique product, so it's a win-win for everyone.

When there's too much produce for even the co-op to move, we have another layer of backup, our local food security organization, LUSH Valley. This non-profit, operating in our community for over 20 years, gleans both excess fruit from people's yards and excess produce from farmers' fields. Volunteers make light work of extra berries in the field and have helped us with the garlic scape and squash harvests, when many hands make the work go so much faster.

This past weekend, I opened the farm to a U-pick to help clean up the last of the blueberries. I was ever so grateful to folks for showing up and grabbing the last of the berries that our own pickers missed. It was so nice to see families come and enjoy the berry field that I'm thinking of doing something similar with the hazelnuts later in the fall.

It takes a village to support a farm, well and truly. Resilient relationships are created when we connect farmers and eaters and shorten food miles. With all that's happening with food prices and shortages, knowing your farmer is more important than ever. If you haven't done so already, reach out to your local grower and see what you can do to help lighten their load.

Arzeena Hamir is a food security activist and farmer. She and her husband run Amara Farm, a certified organic vegetable and fruit farm in Courtenay.

**Volunteers make light work of extra berries in the field and have helped us with the garlic scape and squash harvests, when many hands make the work go so much faster.**



# Coming Home

The Sinixt shape the future of salmon on the Columbia and Kootenay Rivers

Photo essay and captions by Mike Graeme

< Many Sinixt people have never seen the northern part of their homelands in “Canada” due to colonial policies that displaced them into the US and onto the Colville Reservation.

> Renowned Sinixt artist Ric Gendron stands by his mural in *ki'yaməlep place of dead trees* (Nelson, BC) featuring coyote and salmon. “It’s always the salmon with the Columbia River people, you know, that’s what it’s all about,” he said. Gendron passed July 9, 2023.

> “I want our kids to come up and I want them to be fishing for salmon, and I want people to be happy to see them, and I want them to be happy to be here,” said Sinixt elder and cultural leader Shelly Boyd.

>> Sinixt archaeologist Remy LaCombe paddles a Salishan Sturgeon Nose Canoe, constructed by Dr. Shawn Brigman, through the Hugh Keenleyside Dam navigation lock north of Castlegar, BC in June 2022. The same month, descendants of salmon released by the Colville Confederated Tribes in 2019 were seen both upstream and downstream of the Hugh Keenleyside dam for the first time in 80 years. “There hasn’t been [chinook] fish up there since 1941,” said Cody Desautel, Executive Director of the Tribes. “It was really exciting.” In May 2023, the Sinixt and other Colville Tribes released another 53,000 juvenile chinook into the Columbia River above the Chief Joseph Dam to further study their movements and the viability of spawning habitat despite the dams.











< The Sinixt, Skoyelpi, and a number of other Nations have gathered at s̓x̓wnítkw (Kettle Falls) since time immemorial to care for and enjoy the abundance of one of the largest salmon runs on the planet. But today, they gather instead to pray for the return of ocean salmon to the collapsed fishery.

<< Sinixt sharpen their knives on an ancient stone used by their ancestors at s̓x̓wnítkw. In 1942, the US Grand Coulee Dam engulfed s̓x̓wnítkw. Salmon runs that once fed thousands of Sinixt and Skoyelpi – the caretakers of the falls – and other visiting Nations faded to collective memory. Upstream, the Columbia River Treaty dams (the Duncan Dam near Howser, Mica Dam near Revelstoke, and Keenleyside Dam near Castlegar) choked out over 1,750 km of salmon and steelhead habitat following the 1964 Columbia River Treaty. To this day, the Sinixt are not consulted for dam operations and treaty negotiations.

> Sinixt representatives, including their resident fish biologist, investigated the death of thousands of suckerfish and other species on their northern homelands in September 2023. Combined with severe drought conditions, many fish were lethally stranded during the 2023 BC Hydro dam discharges.

> Beyond the impact of dams, settler industries continue to pose threats to the salmon on Sinixt homelands. For 20 years, the Sinixt and other Nations of the Colville Confederated Tribes have been involved in a litigation case against Teck Minerals, Canada's largest diversified mining company, which runs a heavy-metal processing plant on the shores of the Columbia River in Trail, BC. "The Teck Cominco smelter dumped their discharge into our waters for over 100 years," said Sinixt hunter Cindy Marchand, who sits on the Colville Business Council.

< The Sinixt Confederacy plans to open its first fish and wildlife office north of the border in October 2023 in ki'yameləp (Nelson). On June 18, retired wildlife technician Gary Munro gifted them with a salmon pole, which Sinixt people carried into the new office building. "Salmon are such a metaphor for so many things in our life," said Munro. "They're coming back to their home waters, and so are the Sinixt. The Sinixt were the first stewards of this land and the fish need them back, the water needs them back."





# Linked Fates

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## Wildfire smoke shows need for climate co-operation

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by Jackson Todd

**Starting on Tuesday, June 6, New York's skyline started to fade from view. The colossal skyscrapers of Manhattan are often obscured by fog, but in this case the haze had an off-putting yellowish tint. Wildfires burning hundreds of miles away in Quebec had sent giant plumes of smoke into the air, and atmospheric pressure patterns began funnelling the smoke to settle on some of America's largest eastern cities.**

The emergency illustrates our linked fates: Canada and the United States share so much of this continent and its ecosystem; a climate change-fuelled emergency

on one side of our shared border will inevitably have effects on the other.

By nightfall, New York City had declared an air quality emergency, and by Wednesday afternoon the skies were orange and the city smelled like a campfire. Other local governments across the northeastern United States, from Boston to Washington, DC, also acknowledged the emergency and encouraged residents to stay home. As with the pandemic, the stay-at-home orders highlighted everyday inequalities. For many professionals, transitioning back into remote work (if they even still had to make the commute to the office) was easy; however, for most

essential labourers, there is no remote option.

### Labour inequalities

Grocery workers, delivery workers, and transit operators are just some of the many workers who had to either don masks in an attempt to protect themselves, or take time off and hope the smoke would clear up enough to return to work safely at the end of the week. The Worker's Justice Project, a New York City-based workers' centre that organizes construction, domestic, and delivery workers, released a statement via Twitter on how air quality conditions were affecting app-based couriers: "Many #Deliveristas cannot afford to stay at home and are on duty. Many are directly experiencing the effects of this air pollution, including shortness of breath."

T. Richard, a Queens native who delivers groceries in Manhattan via e-bike, tells the *Watershed Sentinel*, "After work on Tuesday, I started to feel the effects of the smoke in the back of my throat." Fearing that working on Wednesday would make him sicker, he called out, losing pay.

And he had good reason. Starting on that Tuesday night, New York City had the worst air quality of any city in the entire world, and it kept this spot into Wednesday afternoon. In these circumstances, everyone, regardless of pre-existing conditions, was encouraged to stay indoors. According to research from the US Environmental Protection Agency, even short-term exposure has the potential to

cause eye and respiratory tract irritation, wheezing, and, depending on the concentration of the smoke, bronchitis, strokes, or heart attacks, especially in at-risk populations. The EPA cites secondary effects to inhaling wildfire smoke: “particle pollution may also affect the body’s ability to remove inhaled foreign materials, such as viruses and bacteria, from the lungs.” This increases the likelihood one will get sick in other ways after short-term exposure.

In response to the crisis, the Biden administration sent firefighters to assist the Canadian government in tamping down the fires. For more long-term answers on climate change, President Biden’s climate agenda so far rests mainly on market solutions, with the centrepiece being more tax incentives for Americans to purchase electric vehicles. Additionally, the administration reported that it sought to revise the *US-Canada Air Quality Agreement (AQA)*, which was enacted in 1991 to facilitate cooperation on reducing air pollution.

### Radical, structural solutions

Beyond electric vehicles or tinkering with existing bilateral agreements, what may inspire a more radical, structural ap-

proach to the climate emergency is the stunning visuality of the wildfire smoke across US cities. Unlike reading about the collapse of the ocean’s phytoplankton populations or large segments of the Antarctic ice shelf plummeting into the ocean, there is something more visceral about seeing some of the most iconic man-made structures in the world, like the Empire State Building or the Washington Monument, obscured by the yellowish haze of wildfire smoke. Perhaps less iconic but more symbolic, the United Nations headquarters was also smothered in the smoke, as seen from across the East River in Queens.

The west coasts of the United States and Canada have been facing similar emergencies for years now, but this one may hit closer to home for the power brokers in each country. The bulk of both nations’ media classes, along with their national governments, are clustered in the east, so major media voices and decision-makers are not (yet) as accustomed to this type of climate emergency as people in, say, San Francisco or Vancouver.

Hopefully the lesson learned is that no matter how much one country locks down its borders, the air, water, flora, and fauna, as well as human beings in the form of climate refugees, will inevitably flow from one country to the next in response to disruptions in local ecology. Bilateral and multilateral cooperation on climate is necessary not only in reaction to specific episodes in the climate emergen-



The West Coasts of the US and Canada have been facing similar emergencies for years, but this one may **hit closer to home** for the power brokers in each country.

cy, but also in reducing emissions overall to try and mitigate the intensity of future disasters.

While we may be slightly more psychologically prepared for images of the World Trade Center enveloped in an orange haze, we cannot become complacent and must continue pushing each of our governments to pursue structural solutions to climate change that address its root causes.

Jackson Todd is a New York City-based journalist and graduate student at the New School for Social Research. He currently researches the politics of the US-Canada Great Lakes Region.

Photo p34 | Brooklyn Park under wildfire smoke.

Photo p35 | Manhattan skyline, showing the Empire State Building and UN Headquarters, under a haze of wildfire smoke in early June 2023.



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# Wild Times

## Unintended Consequences

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by Joe Foy

Over the past couple of years I have paid close attention to some promising new projects by the governments of Canada and BC that appear to hold hope for significant protection of wild nature in BC.

One of these is the BC government's initiative to map old forests that are a priority for preservation. The province's Old Growth Technical Advisory Panel has posted a map on its webpage that shows an overall picture of the panel's priority recommendations for deferral of logging.

The other hopeful initiative is the feds' proposed "Amended Recovery Strategy for the Spotted Owl *caurina* subspecies (*Strix occidentalis caurina*) in Canada." The strategy maps out the forests deemed as critical habitat for the highly endangered spotted owl. By highly endangered, I mean there is now only one wild-born spotted owl remaining in Canada, located in the Fraser Canyon region. And there are about 40 captive raised spotted owls in cages in a Fort Langley breeding facility awaiting release to the wild. Unbridled logging of forest habitat is the culprit in this sad tale of the owl's long decline.

BC provides an online map that shows all sorts of land use info, including cutblocks that have been approved by the province to be logged. This site is called iMapBC.

Being a need-to-see-it-to-believe-it kind of guy, I loaded up all three map layers in my laptop, grabbed a sleeping bag and GPS, and went on several multi-day expeditions to ground-truth the words and deeds of the two governments. I bounced around the back roads and trails of spotted owl range, which is generally south of



Lillooet and west of the peak of the Cascade Mountains – an area similar in size to Vancouver Island.

On my backwoods travels I saw sights that inspired and awed as well as scenes that shocked, horrified, and disgusted me.

### First the good

The range of the spotted owl is all in the Salish territories, and it is powerfully beautiful. From the glacier-blue waters of the Lillooet River to the slopes of the Coast and Cascades mountains to the coffee-coloured waters of the Fraser Canyon, this landscape never ceases to impress.

### Now the bad

Over the course of my travels, it became clear that some logging companies are using Canada and BC's habitat maps to target the best of the remaining old forests for logging. Instead of being a force for conservation, these maps are speeding up the impending loss of spotted owl and other old growth-dependent species. How could this be? The main reason is that neither government has banned logging in all of the identified habitat areas,

effectively putting a big target on many of them – and logging companies have moved in fast.

### And the ugly

There is something soul-sucking about government policies that promise one thing but actually deliver the opposite. BC and Canada can claim that the current orgy of destruction of endangered species habitat is an unintended consequence of their mapping. But both governments should consider that European markets are looking at banning products that come from unsustainable forest practices.

Unintended consequences cut both ways. BC's extinction lumber could be hard to sell in some markets in the near future, thanks to logging companies that target the mapped forest habitat of endangered species.

Joe Foy is the protected areas campaigner for the Wilderness Committee.



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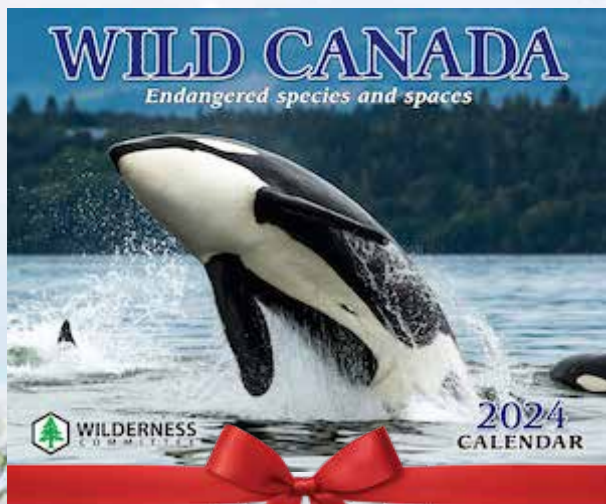
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