



More trees and less fuel part of CFI goals

• By Lisa Boonstoppel-Pot •

From variable frequency drives to renting vans versus trucks to building net-zero homes, members of Huron’s Carbon Footprint Initiative (CFI) are taking their commitment to reduce emissions and protect biodiversity very seriously.

“We all know that our emissions are affecting the climate. We have no choice but to look at how to reduce those contributions and from my perspective, it’s a matter of choosing to be proactive or waiting until we are forced into it,” says Derek Mendez, vice-president of Molesworth Farm Supply Ltd. “We have decided to take a proactive approach. Every project we do now, we try to make it more efficient and minimize emissions.”

Chet Calhoun, the Production Supervisor at Corteva’s Wingham Parent Seed Plant agrees. The company began tracking “everything” to get an idea of all the carbon produced at the plant. Then began decreasing fuel usage, recycling seed bags, and reducing driving times with strategic carpooling methods. “Honestly, it makes good business sense to operate green,” says Calhoun.

The Carbon Footprint Initiative in Huron County is a non-profit alliance of business owners, farmers and local government finding ways to reduce their carbon footprint



Above: Carbon Footprint Initiative leaders who attended the June 9 meeting were (left to right) Tracy MacDonald, CEO, Trillium Mutual Insurance Company; Kriss Snell, CAO, Municipality of North Perth; Richard Keeso, J.H.Keeso and Sons Ltd; Tim MacDonald former CEO of Ideal Supply Ltd; Ron Coghlin, Chairman, Molesworth Farm Supply Ltd.; Derek Mendez, Vice President, MFS Ltd.; Front Row: Ed McGugan, Vice Chair, MVCA. Missing: Martin Vogt, CEO, EFS Plastics Ltd.; Pat Downie, CEO, Ward and Uptigrove; Derry Wallis, Climate Change & Energy Specialist, County of Huron; Chet Calhoun, Production Supervisor, Wingham Parent Seed Plant, Corteva Agriscience. Top: Employees from Corteva Agri Sciences Wingham Production Plant had a field day planting trees as part of their carbon footprint strategy. ~Photos submitted

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It's also fun working IN green, says Richard Keeso, owner of J.H. Keeso and Sons Ltd, a sawmill business that was retired after a massive fire destroyed the main buildings in Listowel. While no longer part of the CFI as a businessman, Keeso is very active with CFI's Middle Maitland Rejuvenation Project planting trees. "That is where I am happiest," he says. Plus, he's taken his passion for carbon reduction and applied to the building of his new home to create a net-zero home.

Flooding, wildfires, tornadoes and wind events resulting from climate change directly affect the insurance industry which is why Tracy MacDonald, CEO of Trillium Mutual Insurance is a keen member of CFI. With goals to reduce their fuel usage, adapting a hybrid remote work model and building a living fence, the company continues to push for environmental sustainability. They have already received the Gold Standard from Canada's Green Building Council for energy-saving efforts at their central office in Listowel, built in 2011.

These are just four members of the CFI which is a non-profit alliance of public and private sector entities representing local government, agribusiness, forestry, insurance, seed, automotive and electrical supply sectors. They formed the initiative out of a common interest in finding ways to reduce their carbon footprint, especially the use of fossil fuels. They are also very active in planting trees, shrubs and plants to remove carbon from the atmosphere and store it in the land.

Each company has its own carbon footprint strategy

Molesworth Farm Supply

From changing all the lights in the mill to LEDs and then using automation for efficiency, Molesworth Farm Supply continues to modify and research ways to reduce their carbon footprint.

Variable frequency drives (VFD) was a big saver in terms of electricity usage. "With VFD, we can adjust the speed equipment is run at, instead of running it at one fixed speed, which saves energy," explains Mendez.

The system also stops any machinery that is idling. “When we run augers and run products through it, power consumption increases. Once it has passed, it goes at idle speed. Now, the system shuts it down so no equipment is running that isn’t being used.”

Also, in terms of electricity, they created a system so that if two pieces of larger equipment are needed at the same time, they start sequentially versus simultaneously. “That doesn’t really reduce consumption but it reduces spikes which are a huge draw on the power supply.”

The automation for both these systems saves the company on hydro costs as well.

Other emissions the company is working to reduce include dust and waste water. Dust from the mill was traditionally released into the environment but now dust collectors trap the dust. Also, the mill is completely enclosed which reduces noise pollution. In terms of waste water, fully-automated truck washing systems were installed at the mill that monitor how many times a truck can be washed during the week.

Mendez explains that some drivers really like to drive clean trucks and were cleaning trucks more than necessary. Now the system limits drivers to two washes a week. When a wash is needed for biosecurity reasons, the system washes only the bottom half of the truck to reduce water use.

Water is also used in the feed pelleting process and has to be treated before use. “That creates waste water from the treatment process so we are capturing that water and using it for the truck wash on site. We know exactly how many litres are used in a wash,” says Mendez.

The next big project for the company is the commissioning of a feasibility study to convert the truck fleet to hydrogen. “That would involve putting hydrogen fuel cells in the trucks and fueling them with hydrogen,” explains Mendez. The company wants to determine if the plan is possible and affordable.

“We aren’t just waiting until we can buy new trucks,” says Mendez.



Automating truck washing and installing variable-frequency drives in the plant have helped Molesworth Farm Supply reduce its emissions says Vice-President, Derek Mendez (right).



“We are looking at what we have now and the opportunities to further reduce emissions.”

Corteva Agri Science Wingham Production Plant

One of the first members of CFI, Calhoun said he had the backing from his company right from the start when he wanted the plant to become “better in terms of environmental sustainability.”

The first project was simply planting trees around the plant. “It was just an empty field and we decided to offset some of our carbon usage by planting trees.

Then began a full-scale system of tracking all the carbon produced at the plant. That included use of propane, natural gas, electricity, landfill waste and water usage. “We wanted to have a baseline so that we could put goals into place to reduce outputs,” says Calhoun. In 2017/2018 we planted 150 trees with the goal to reduce 100,000 kilograms of carbon which was met. In 2016/2017 we reduced carbon tonnage by 219,000 kilograms and in 2017/2018, it was 98,000 kilograms.”

Fuel usage was the next focus with multiple methods employed. They employed carpooling plans and rented fewer vehicles for employees to use. “We went from six weeks of using rental vehicles to four weeks,” says Calhoun. When trucks were rented, they only rented new, fuel-efficient vehicles. Also, three staff earned their AZ licences so they

could truck combines instead of driving the actual combines to their destination.

In terms of the world-wide Corteva company, the Wingham plant is in the top 10 per cent for efficiency compared to other sites of their size.

By 2030, the company’s goal is to have zero waste traveling to the landfill. “That will be a big one but we are slowly but surely trying to recycle everything, such as our bags. We have a lot of waste when we cut seeds out of bags. They used to go to a dumpster but now they go to Clean Farms for recycling.”

These initiatives make good business sense for the company and an unseen bonus is how planting trees and making positive choices benefits company morale. “Last year we helped CFI by putting all our employees in the field to plant trees. It seems like a lot of work but all the employees enjoyed it. Most of them grew up on farms and like to be in the field. It was fun and good to be part of the community.”

Richard Keeso

Still regrouping from the 2018 fire that shut down the J.H. Keeso and Sons sawmill in Listowel, Keeso doesn’t represent a business on CFI so he works as much



Richard Keeso

as he can in the field. Which is right up his alley as he was already planting five acres of trees per year while operating the sawmill.

“I always favour field work and I have been helping with the forest health studies via the Maitland Valley Conservation Authority (MVCA),” says Keeso. He’s been gathering data and is actively planting trees along the Maitland River.

While running his business, Keeso believes he gained a well-rounded perspective about the environment by chatting with biologists, farmers, agribusiness, companies and municipal government. That knowledge coupled with extra time has translated into a personal passion to protect the environment. He regularly reads and researches new methods and is a big fan of Katherine Hayhoe, a Canadian atmospheric scientist working at Texas Tech University.

Keeso also wanted to live by his beliefs so when the opportunity came to build a new home on Lake Huron, he and his wife Ann decided to build a solar, net-zero home. “It will produce as much energy as the home consumes and eliminate any need for fossil fuels,” says Keeso.

The garage will feature two Tesla Powerwall battery units to collect sun energy on sunny days. When they fill them, the excess energy goes to the grid and the Keesos will receive a credit back from Hydro One for the contribution. In the evening, the home can be powered from these batteries which can store enough energy to power the home for six days.

LoE³-366® glass windows are being installed to act as a barrier to the sun’s rays which takes a load off

the air conditioning while also maintaining heat in the home. It’s an exciting project for Keeso who says he is rethinking everything he does, including single use plastics and fuel versus electric vehicles.

“We need to get back to a cyclical society where we can return things instead of throwing them out,” says Keeso. “It’s been said that our generation is the first to feel the effect of climate change and the last to do something about it. I believe that we are at a tipping point in many ways on this planet. I want to get out there and take action.

Trillium Mutual Insurance Company

Building a main office with a focus on energy efficiency and replacing their vehicle fleet with 100 per cent hybrid vehicles are the big things Trillium Mutual Insurance has done. It’s also hard at work changing the small things.

“Climate change is such a massive issue it seems insurmountable but there are simple things we all can do, like donating old clothes instead of bringing them to landfills,” says MacDonald.

The company has an internal Carbon Footprint Initiative Leadership team that meets regularly to educate employees about those simple ways to change. “We really want to encourage good practices in

everyday life.”

More wide-reaching is the company’s podcast, called The Back 40 which is taking knowledge gleaned from agricultural clients and sharing it with the broader agriculture community.

Moreover, the company itself is teaching clients how to prepare for emergencies that are arising out of climate change, such as flooding, tornadoes, fires and heavy wind and rain events. “A lot of people think they have insurance, so it will pay to restore what they lost. But there is far more to it. If we can help prevent some losses, it reduces the cost of insurance for everyone. There is also the sustainability aspect because rebuilding is not sustainable from an environmental perspective,” explains MacDonald.

Interestingly, property loss can also be very detrimental to mental health. Flooding in particular seems to have lingering effects. After a flood and all the loss of property, some homeowners find themselves stressed each time it rains as it triggers memories and worries about future loss.

At the business, research is being done on constructing a living wall to serve as a privacy fence. Employees are also active in tree planting projects while the office has gone 100 per cent digital. “We do not use paper at all,” says MacDonald. ◊



Climate change has a massive effect on the insurance industry and Trillium Mutual Insurance CEO Tracy MacDonald (above, left) says the company has replaced its entire fleet with hybrid vehicles and has gone 100 per cent digital. The company also has a Sustainability Committee seen above near Wingham while involved in an on-site education on Climate Adaptation work in Agriculture.

