























EDITORIAL

PASSING THE TORCH

Graham Hinch, Director, Western Hemisphere Sales and Marketing

In this issue, we have the pleasure of profiling a young logger, Zachary Emerson, co-owner of Emerson & Sons Logging, Groton, Vermont. His story is similar to so many other logging families across the United States and Canada — a story of generations, of passion for the industry, of dedication to the community, and of love for family. As you'll learn in the cover story on page 12, Emerson has worked for his father Chris most of his life and in recent years has started taking over the reins.

When he started working full time for his dad after high school in 2006, Emerson ran a cable skidder while his father hand felled with a chain saw. The logging business has changed much since then. Fully mechanized logging machines and technological innovations have revolutionized how logging is done. Emerson has embraced new technology to boost productivity and efficiency while engaging social media as an industry influencer. We're excited to work with him throughout this next year to highlight John Deere Precision Forestry technology. He represents a bright future for logging. Follow Emerson on his Instagram page, @emersonandsonslogging, and at #DeereInTheWoods.

Like all logging companies, Emerson & Sons Logging has faced tough challenges over the years, such as severe weather, changing market conditions, and rising fuel costs. John Deere has kept up with the times by introducing innovative new products and solutions. As you'll learn in the International Corner story on page 4, technologies such as Intelligent Boom Control (IBC) and our TimberMatic[™] Maps and TimberManager[™] map-based productionplanning and -tracking system not only help loggers increase productivity, but they help reduce the impact on the environment. Sustainable forest management is critical to the survival of our industry and an important business objective for John Deere.

Loggers deserve the best equipment, which is why we'll continue to design and build a comprehensive lineup of machines. We're constantly expanding our extensive equipment portfolio with machines covering a wide range of felling and harvesting tools. Stay tuned in mid-2023 when we announce big news about our swing machines.

But it takes more than productive, reliable machines for you to be successful. From rapid service to preventative maintenance, our world-class dealer network will help keep you up and running. Through John Deere Connected Support[™] enabled by JDLink[™], your dealer can closely monitor your fleet's health, remotely diagnose machine issues, and quickly respond with the appropriate part or solution. With convenient locations across North America, your local John Deere dealer is always nearby.





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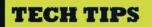
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Zach Emerson has attracted over 1,400 Instagram followers by sharing his everyday life of a logger.

Cover image: Zachary Emerson represents a bright future for logging.





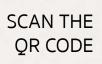
EXPLORE THE BENEFITS OF INTELLIGENT BOOM CONTROL WITH A NEW MOBILE GAME

Our new mobile game allows you to test your virtual harvesting skills while learning about the advantages of our Intelligent Boom Control (IBC) option. Now available on our MH-Series Tracked Harvesters, IBC smooths boom operations for more precise harvester-head positioning, especially on extended reaches.

Using the camera app on your smartphone, simply scan the QR code below to access the game. Then use the gameboard above, as instructed in the game. First, try harvesting without IBC. You'll need to control each independent boom function separately, which can be tricky.

Next, try harvesting with IBC. It's designed to mirror how the machine might function if it were an extension of your arm. Simply steer the harvester head toward the target and IBC automatically adjusts the cylinders and boom accordingly. This allows you to focus on the harvesting head rather than the boom-joint movements. How did you do? In real life (or as gamers would say, "IRL"), loggers are reporting that the system is easy to learn, enjoyable to operate, accurate, and fast. Because it allows them to focus on controlling the attachment, IBC has helped our customers improve efficiency. The result is a better operator experience and increased productivity compared to an MH-Series Tracked Harvester without IBC.

GG! (Gamer shorthand for "Good game!")





or visit Deere.aircards.app/?v=ibc on a mobile device to access the game.

FOREST Model Scandnavian

ONAL CORNER

operation demonstrate impact of technology on sustainable logging

John Deere technology helps loggers balance the demands of landowners and mills with environmental concerns. For example, Intelligent Boom Control (IBC) and TimberMatic[™] Maps help loggers not only get more out of their machines, but they help minimize the environmental impact on a logging site.

"Improving the machine's productivity continues to be key, in terms of eco-friendliness," says Sami Törmä, product manager at John Deere, Tampere, Pirkanmaa, Finland. "Alongside machine development, operator-assistance solutions are of increasing importance."

Introduced in 2013, IBC has been used by customers on thousands of machines around the world. IBC smooths boom operations for more precise harvester-head positioning, especially on extended reaches. Operators no longer need to control each independent boom function separately. The controls used for reaching and securing trees intuitively mirror how the equipment might function if it were the operator's arm. This allows the operator to be 10-percent more efficient, saving time and fuel.

Our map-based production-planning and -tracking system, TimberMatic Maps gives operators a real-time production view to the logging site. Alerts notify operators if they get too close to environmentally sensitive areas and cut boundaries. The system helps operations optimize path planning, minimizing the number of passes a machine makes in the forest up to 15 percent. This aids in soil health and regrowth through reduced compaction.

KEEP BACK 300

"TimberMatic Maps software allows the operator to plan driving routes," explains Niko Solopuro, product marketing manager, John Deere Forestry, Tampere, Pirkanmaa, Finland. "The achieved fuel-consumption savings reduces the amount of carbon dioxide released into the atmosphere, and less driving means less damage to the terrain and trees."

To understand the impact of these technologies, consider a model logging operation in a Scandinavian forest. Operating two shifts per day using wheeled cut-to-length equipment on a 2,500-cubic-meter logging worksite, it takes a logging operation about 11 hours to complete the job, on average. Using TimberMatic Maps and IBC, this customer can save approximately \$3,000 in operating expenses, reduce fuel usage by up to 156 gallons, and cut time on site by up to 40 hours. These outcomes reduce greenhouse gas emissions by about two metric tons (equivalent to eliminating 4,900 to 5,000 passenger-vehicle miles).

SUSTAINABLE OUTCOMES DELIVERED BY JOHN DEERE TECHNOLOGY

> Outcomes realized on a 2,500-cubic-meter model worksite*

156 GALLONS of fuel saved

\$

40 FEWER HOURS of labor to complete job

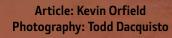
\$3,137 cost savings to operator (fuel + labor)

2 metric tons of CO₂ reduced^{**}

Equivalent to offsetting 5,000 passenger-vehicle miles driven or adding 2.5 acres of forest sequestering carbon.

*Outcomes based on customer experience and machine data. Results reflect savings achieved during processing of 2,500 cubic meters with a typical team working two shifts per day, which would take approximately 11 days on average. Results will vary.

**Equivalencies based on U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.



E E R

MEW/0000S INFLUENCER EMERSON **IS PROUD TO WORK** WITH JOHN DEERE

A digital presence is becoming more and more essential to any business, including logging. At a bare minimum, companies should have a website, drive traffic to the site through search engine optimization, and add contact information to local business listings. But many loggers such as Zachary Emerson, co-owner of Emerson & Sons Logging in Groton, Vermont (see main story, page 12), are boosting their social media presences to reach customers on a more personal and regular basis. Emerson has attracted more than 1,400 followers to his Instagram account.

"I try to show what we do and the quality we provide," he explains. "It has definitely helped me attract people who need loggers so I can build my business."

AUTHENTIC VOICE

When people think of influencers, they often think of famous athletes, musicians, or actors with millions of followers. But in truth, anyone with over 1,000 followers is considered a social media "influencer." And leading brands such as John Deere are interested in people such as Emerson who offer personal, niche content to an audience of highly engaged users. Even though Emerson himself did not view himself as an influencer, Deere saw his potential and reached out to him.

With the advent of social media platforms such as Instagram, Facebook, and YouTube, consumers have almost unlimited choices for content, but this also makes them harder to reach. Influencers provide a way for companies to connect with their audiences through social media.

Emerson has earned a reputation as a trusted authority. Authenticity is key to building and maintaining trust with followers. "I think showing my image and images of my family shares a human face. It gives a more personal vibe to our business." (See "Keeping It Real" article, page 18.)

Emerson started an Instagram account three years ago. "I just wanted to record what I was doing on a daily basis," he says. "It's helped me attract an audience of people involved in logging, whether it's landowners or other people in the industry."

Hashtags such as #logging, #vermont, #local, #wildlife, #forestproud, and #DeereInTheWoods have helped Emerson further boost his following. Persistence is also important. He posts almost every day. "If I'm in the feller buncher cutting, I'll post that. If I'm on the landing, that's what I'll post. Whatever catches my eye."

"I THINK SHOWING MY IMAGE AND IMAGES OF MY FAMILY SHARES A HUMAN FACE. IT GIVES A MORE PERSONAL VIBE TO OUR BUSINESS."

> Zachary Emerson, co-owner, Emerson & Sons Logging

TT'S HELPED ME ATTRACT AN AUDIENCE OF PEOPLE INVOLVED IN LOGGING, WHETHER IT'S LANDOWNERS OR OTHER PEOPLE IN THE INDUSTRY.

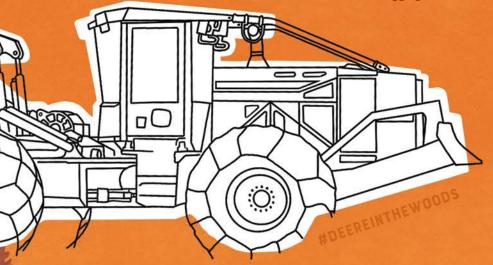
> Zachary Emerson, co-owner, Emerson & Sons Logging

> > #DEEREFAMIL



THE LATEST THINGS DEERE HAS GOING ON AND REPRESENTING THEM AS A BRAND AMBASSADOR.

Zachary Emerson, co-owner, Emerson & Sons Logging



BRAND AMBASSADOR

Emerson caught the attention of John Deere, who approached him about establishing a relationship. When asked to be the company's first influencer for forestry, he didn't believe it. "When I first got an email, I thought it was a scam," he recalls, laughing.

After a few unsuccessful follow-up phone calls, the Marketing Department for John Deere Construction & Forestry eventually reached out to Emerson's local dealership, United Construction & Forestry, who paid him a visit to confirm the messages were indeed from Deere.

Through the partnership, Emerson will be able to demo some of the latest John Deere technologies and share how they improve, in Emerson's words, "our efficiency and craftsmanship in the forest."

"I'm extremely grateful and honored for the opportunity," he says. "I'm looking forward to showing the latest things Deere has going on and representing them as a brand ambassador."

Emerson & Sons Logging is serviced by United Construction & Forestry, Williston, Vermont.



To see more of the story, visit JohnDeere.com/TheLanding

DEFRE GEAR

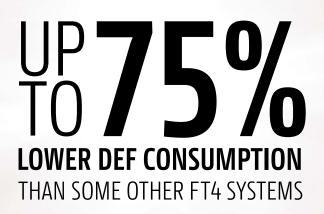
NORE POWER TO YOU

Proven FT4 engines power your productivity

Every day in the woods is a chance to improve on the day before. Which is why reliable John Deere EPA Final Tier 4 (FT4)/EU Stage V engines start when you need them to and are built for working in tough conditions. So you can stay ahead at the landing, keep up with mill quotas, and reach your potential.

Our FT4/Stage V diesels legally comply with emission regulations without sacrificing power or torque. This enables them to handle steep slopes at high altitudes and deliver fast acceleration without lugging. And they are able to maintain peak engine performance while minimizing total fluid consumption — diesel fuel plus diesel exhaust fluid (DEF). This exceptionally conservative DEF-use rate is up to four times lower than that of some other FT4 systems.





"Our FT4 engines have proven themselves with hundreds of millions of operating hours in the field. They provide a legally compliant solution that consistently delivers exceptional performance and reliability, along with low DEF burn."

> Allison Plunkett, manager, full-tree engineering, John Deere



VERMONT LOGGERS PROTECT THE LAND

The first thing that strikes visitors to Vermont is its natural beauty. In the fall, the "Green Mountain State" becomes a patchwork quilt of color. Sugar maples create deep fiery reds and oranges in fall foliage. Not surprisingly, tourism is the state's biggest industry, followed by manufacturing. Forestry contributes nine percent of Vermont's total manufacturing output and is a \$1.5-billion industry.

ARTICLE: KEVIN ORFIELD | PHOTOGRAPHY: TODD DACQUISTO



Who were the historical Green Mountain Boys?

The Green Mountain Boys were a patriot militia organized during the American Revolution to defend the property rights of the territory that would later become Vermont. The Green Mountain Boys would muster again during the War of 1812, the Civil War, the Spanish–American War, the Vietnam War, the Afghanistan War, and the Iraq War. Today the term is the informal name of the Vermont National Guard. Almost 80 percent of the state is covered in forestland. Zachary Emerson, co-owner of Emerson & Sons Logging, grew up in Groton, near one of the state's most picturesque forests. His father and company founder, Chris Emerson, was raised in nearby Newbury. "Vermont is small and quiet," says Chris. "It's like a big family. Everybody knows each other."

THIS LAND IS OUR LAND

Emerson & Sons Logging harvests sugar maples and other hardwood including ash, yellow birch, and beech, as well as softwood such as spruce, fir, and hemlock. About 50 percent of the wood the company harvests is roundwood. The other half is processed with a chipper and shipped to local biomass plants.

Logging in Vermont is unique, according to Zachary. "We're often working with private landowners on small tracts of land. We work hard to improve their land. We treat it as our own."



About **50%** of the wood the company harvests is roundwood.

The other half is processed with a chipper.



Vermont has the highest concentration of sugar maples in the United States, so it is appropriate that the sugar maple is the state's official tree. The state's famous maple syrup is made from the sap of the sugar maple. Vermont is the largest manufacturer of maple syrup in the U.S., producing two million gallons each year, more than a third of the nation's total.

At a logging site near Emerson & Sons' shop in Groton, Zachary brings a jug of Vermont maple syrup and fresh cake donuts for his dad and the rest of the crew. They agree the combination is better than a pancake breakfast.

The company's history with John Deere goes back to the late 1980s, when Chris ran several Deere cable skidders. "Deere machines are extremely reliable and the service we get from our local dealer, United Construction & Forestry, is top-notch," says Zachary. Today the company runs a John Deere 853M Tracked Feller Buncher and a 648L Skidder, producing around 30 loads a week. "We mostly work in steep terrain, so we have to run tracked feller bunchers," says Zachary. "The 853M has the power and stability we need."

"Deere machines are extremely reliable and the service we get from our local dealer is top-notch."

Zachary Emerson, co-owner Emerson & Sons Logging





A HUGE LEAP

As a child, Zachary would tag along with Chris to the forest every chance he could. "I loved the freedom I felt in the woods. It really inspired me to become a logger."

Throughout high school, Zachary would work for his dad during the summer and holiday breaks. He started working for him full time after graduating in 2006. At the time, he ran a cable skidder, while his dad felled trees with a chain saw.

In 2016, Zachary bought into the business and formed a partnership with his father. "I'm so blessed to work with my dad," says Zachary. "Sure, it has its ups and downs, but we get along great. We're best friends, more or less."

"We have a great relationship," agrees Chris. "I'm very proud of him. He really stepped up, and our business has grown tremendously since I handed him the reins. He's so good at dealing with landowners and foresters and using social media. It's gotten so I can just show up for work and put all the pressure on him (laughs)." Vermont is the largest manufacturer of maple syrup in the U.S., producing

2,000,000

gallons each year, more than a third of the nation's total. The logging business has changed significantly over the years, according to Zachary. "The biggest change has been just the technology — moving from hand-felling and a cable skidder to a grapple skidder and more computerized machines with mapping systems. It's taken a huge leap."

Another form of technology that Zachary has embraced is social media, which he has used effectively to keep landowners informed and attract new customers. "I'm passionate about sharing the quality of our work. We try to help each landowner achieve their goals, for example, whether it's growing sawtimber or wildlife management."

His loyal following of 1,400 on Instagram has caught the attention of John Deere (see related #DeereInTheWoods article, page 6). As part of Zachary's future relationship with the manufacturer as an influencer, he'll be able to try out some of the latest John Deere Precision Forestry technology and share his experiences.

Chris admits he is not savvy with social media like his 34-year-old son. "I don't have an Instagram or Facebook account." But he believes the future of his logging company is in good hands. "I have another son who is very interested in coming on board. He works for us every chance he gets. And Zachary certainly has a good handle on everything we are doing. Things are looking great."

Emerson & Sons Logging is serviced by United Construction & Forestry, Williston, Vermont.



★ John Deere's Vermont heritage

John Deere was born in 1804 in Rutland, Vermont. In 1821 at the age of 17, he became an apprentice for a local blacksmith before entering the trade in 1826. He opened shops in Vergennes and later Leicester, Vermont. When the New England economy collapsed in 1836, he moved to Illinois, where he opened a blacksmith shop. Shortly after arriving he learned that local farmers used cast-iron plows, which did a poor job of shedding the sticky soil of the Midwest prairie. Deere fashioned a plow from a broken sawblade. The highly polished surface shed the soil, making the self-scouring plow incredibly popular with Midwestern farmers.

KEPING IT REEL

Zach Emerson shares snapshots of everyday logging life on his Instagram account

Zach Emerson, co-owner of Emerson & Sons Logging of Groton, Vermont, has attracted over 1,400 Instagram followers (see #DeereInTheWoods article, page 6). Emerson likes to keep things real, sharing slices of life that capture the daily trials and tribulations of being a logger. "I try to post the everyday stuff," says Emerson. "Not all days are perfect. It's not all icing on the cake. I show everything that I can."

That kind of authenticity has earned him a loyal following — and caught the attention of John Deere. Follow Zachary on his Instagram page, @emersonandsonslogging, and at #DeereInTheWoods.



#DeereInTheWoods

DOWNTIME

DO YOU STILL CALL IN THE CAVALRY IF THEY'RE ALREADY EN ROUTE?

Filling a fleet with rugged machines is just one step to winning in the woods. There's the hustle of experienced technicians. Having parts at the ready. Or leveraging time-saving tools from cutting-edge technologies. Your local John Deere dealer is always near for support, helping you to keep timber moving, and quotas filling.





JohnDeere.com/OneInTheWoods



WORK, EVEN WHEN IT RAINS.

With incredible stability in soft or sloped terrain, the new John Deere 768L-II Bogie Skidder efficiently retrieves timber in hard-to-reach places. The bogie axles on this six-wheel skidder combine excellent traction and flotation with reduced ground pressure helping you move big loads long distances no matter the conditions. Add one to your fleet and get ready to OUTRUN.



JohnDeere.com/OneInTheWoods