

JILL FUNKE, MARKETING AND COMMUNICATIONS DIRECTOR/EMPLOYEE OWNER
— SIOUX NATION AG CENTER

Embracing a Future with Hemp

STEVE VONK (L) AND DAWSON VONK (R) STANDING IN FRONT AN INDUSTRIAL HEMP FIELD

For generations, Midwest crop rotations have primarily focused on corn and soybeans. In the current ag industry, farmers are searching for ways to improve soil health, diversify income streams, and build resilience in their operations. Hemp is emerging as a crop with growing potential for its versatility and the agronomic benefits it offers.

It's ability to suppress weeds, improve soil structure, reduce erosion, and contribute organic matter back to the soil, paired with studies showing it can fit well into regenerative crop systems and diversified rotations are elevating the attention given to Hemp. Compared to many traditional crops, hemp also requires fewer herbicides and pesticides, and its deep root system can help improve soil tilth and water infiltration. Advocates of the crop note that hemp's rapid canopy growth shades out weeds naturally, reducing weed pressure for future crops in the field's rotation.

In addition, hemp's broad range of end uses from textiles

and livestock bedding to bioplastics, insulation products, and construction materials, has sparked excitement among entrepreneurs who see opportunity in building an entirely new agricultural supply chain.

One of those entrepreneurs is HempAgra cofounder Steve Vonk, who launched the company alongside cofounder Dawson Vonk, with Kaela Clarey also a cofounder following her early role in the company's development. HempAgra is an Iowa-based agricultural technology company that processes regionally grown hemp into high-value products for major markets. Based in Rock Valley, Iowa, Vonk and his family are investing heavily in what they believe is the next chapter of agriculture: a vertically integrated hemp business that not only grows the crop but also processes it into market-ready products. "Our acreage continues to increase annually as demand for sustainable hemp materials grows and processing infrastructure expands. This year alone, we're cultivating approximately 1,500 acres of industrial hemp."

HEMPAGRA PROCESSING FACILITY



Answering the Need for Infrastructure

While hemp production was legalized in the 2018 Farm Bill, one of the industry's biggest hurdles has been the lack of processing capacity. Farmers may be interested in growing hemp, but without nearby facilities to decorticate (strip the outer bast fibers from the plant's inner woody core), refine, and market the crop, opportunities remain limited.

Vonk has always had an interest in sustainable agriculture, regenerative farming systems, and industrial biomaterials. "Hemp stood out to me because of its versatility and ability to support both environmental and economic sustainability in agriculture." From this initial interest evolved a clear goal of building a complete industrial hemp supply chain, from the farm all the way through to finished materials and products. The vertically integrated HempAgra operation is focused on growing hemp and processing the hemp stalks into long fiber, and sized-specified hurd fractions to bring to multiple high-value markets. The company recently announced the installation of the advanced HempTrain™ processing system at its Rock Valley facility. The technology is designed to produce cleaner, more consistent hemp fiber and hurd products for industrial applications.

Vonk explains, "We invested in scalable processing infrastructure and sought dependable high value markets for the materials produced." These efforts are further fueled by the satisfaction of the impact hemp processing facilities have on the circular economies of rural areas. Strategically locating facilities near growers makes logistical sense for HempAgra, local growers, and their surrounding communities. Industry advocates often point out that hemp has the potential to generate higher revenue per acre than some traditional commodity crops, particularly with established markets and value-added processing existing nearby. The company is currently considering future locations for additional processing facilities in the region, as Vonk explains, "Our focus has always been on creating stable, long-term opportunities for farmers while building reliable, scalable supply chains for industrial hemp materials across multiple industries."

Vonk's operation is also notable because it reflects a broader trend toward farmer-led innovation. Instead of waiting for outside companies to create opportunities, growers themselves are expanding into processing, manufacturing, and product development. That approach may help solve one of the historic problems

facing emerging crops: disconnected markets. For farmers, an increasing list of applications matters because stable end markets are critical to profitability.

For Vonk, it is about helping create a new agricultural ecosystem; one where farmers have additional rotation options, rural communities gain processing and manufacturing jobs, and agriculture supplies renewable raw materials for a growing list of products.

How it Works

Along with a network of contract growers in the area, Vonk plants and harvests industrial hemp. The hemp bales are transported to the HempAgra plant, where the facility deploys advanced, state-of-the-art HempTrain™ technology to non-destructively separate whole hemp plants into materials including fiber (the stringy outer layer of the stalk) and hurd (the woody inner core of the stalk).

Under the separation process, the stalk is separated into distinct fractions that meet the requirements of different industries and the result is long, clean bast fiber suitable for textiles, insulation, nonwovens, and a range of industrial applications. Hurd production results in size-specified fractions that expand downstream usability across several

TOUGH ON TOUGH WORMS, EASY ON YOU.

VALCOR®
(doramectin and levamisole injection)

You can achieve effective parasite control in one product, where before you may have needed two. Valcor (doramectin and levamisole injection) is the first prescription cattle dewormer with two active ingredients in one dose. It's never been easier to be tough. Get tough at [ValcorTough.com](https://valcortough.com).



IMPORTANT SAFETY INFORMATION: Do not treat cattle with Valcor within 15 days of slaughter. Not for use in female dairy cattle 20 months of age or older, including dry dairy cows; not for use in beef calves less than 2 months of age, dairy calves, and veal calves. Safety has not been evaluated in breeding bulls. Use with caution in cattle treated with cholinesterase inhibitors. This product is likely to cause injection site swelling; tissue damage (including granulomas and necrosis) may occur. These reactions have resolved without treatment. See Brief Summary of Full Prescribing Information on the next page.

All trademarks are the property of Zoetis Services LLC or a related company or a licensor unless otherwise noted.
© 2025 Zoetis Services LLC. All rights reserved. VLC-00009R2

zoetis

sectors. The larger hurd fraction is in demand for pet bedding, bio-composites, and construction materials, where absorbency, structure, and consistency are critical. The smaller fraction (micro-hurd) is ideally suited for absorbents, soil health products, sustainable packaging, and other emerging bio-based applications that require cleaner ingredients.

Vonk explains, “The HempTrain™ technology is well-established in global industrial applications and is designed for the efficient mass-conversion of field-baled hemp straw into distinct, high-value product streams. To our best knowledge no other hemp processing technology can provide that.” That focus on quality is important because the hemp industry is increasingly moving beyond novelty products and into large-scale commercial applications.

Integration is Essential

HempAgra’s 100% vertical integration model incorporates growing and harvesting hemp, processing the crop under specifications for identified markets, and manufacturing the processed outputs into products ready for end users. Recent regional collaborations involving HempAgra and other upper Midwest hemp businesses are working to expand the production of hemp-based building products in the United States. Vonk comments, “The next phase for us is continuing to move further downstream into finished products for construction materials.” Through a partnership with Renewabuild Great Plains, a hemp block factory is being established in close proximity to the HempAgra

processing facility in Rock Valley, IA. This allows for a highly-integrated supply chain where HempAgra supplies the consistent, clean, size-specific hurd required for manufacturing the structural hemp blocks for engineered wall systems. Vonk acknowledges, “In these applications, performance is engineered upstream, meaning the quality, consistency, and specifications of the hurd are critical to the performance of the final product. This proximity and integration ensure reliability of supply and alignment between raw material production and end-product manufacturing, which is essential for scaling hemp-based construction materials in commercial markets.” HempAgra is also contemplating a downstream NForce-Fiber™ Factory to support supply into the multi-billion-dollar construction materials market, further strengthening regional manufacturing capacity and domestic hemp-based construction materials.

Sustainability Matters

The environmental conversation surrounding hemp is also fueling interest.

Some researchers and sustainability advocates highlight hemp’s potential role in carbon sequestration and regenerative agriculture systems. Hemp grows rapidly, produces large amounts of biomass, benefits the soil, and according to studies, may help reduce weed pressure through crop rotations over time. For producers facing tight margins and increasing pressure to improve sustainability metrics, that combination of agronomic and economic potential is difficult to ignore.

While the benefits of hemp production are exciting, there are also challenges to consider, including the need for specialized management knowledge, harvest equipment, and reliable processing partnerships. Markets continue to evolve, and growers considering hemp need to carefully evaluate costs, contracts, logistics, and agronomic fit for their operation.

Yet despite the challenges, the hemp movement continues. In just a short time, HempAgra has expanded from initial hemp acreage into a major processing investment designed to serve multiple industries. According to recent reports, the Vonk operation increased from 100 acres of hemp in its first year to 1,500 acres under management in the following season.

That rapid growth reflects both optimism and belief in hemp’s future. For Vonk, the opportunity is bigger than a single crop. As interest in sustainable materials and regenerative farming practices continues to rise, businesses like HempAgra are betting that hemp’s next chapter is only beginning.

“As demand for industrial hemp materials continues to grow, scalability and consistency remain central to our operations. We continue to expand processing capacity and develop new end markets for all fractions of the plant, ensuring full utilization of the crop and maximizing value from every harvest.”

THE HEMPTRAIN™ ADVANCED HEMP PROCESSING PLANT



INDUSTRY FEATURE

7