APT
AMERICAN PEAT TECHNOLOGY

SEPTEMBER 2022

THE P.E.A.T. BEAT

HEALTHIER SOIL. CLEANER WATER. BRIGHTER FUTURE.

IT'S BEEN A BUSY SEASON AT APT

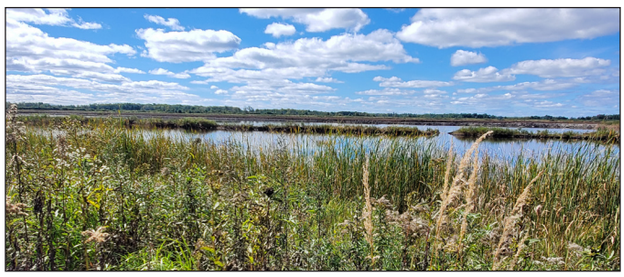
Even though APT's peat harvest season begins when the ground freezes, we enjoyed a busy and productive summer in Aitkin, MN. Our teams focused on reclamation activities, explored new opportunities and applications for BioAPT, and connected with the community at many exciting events. Read on for an update on our work and a glimpse into what the future holds for APT.

Operation Reclamation

APT is, at its heart, a natural resources company. We're committed to harvesting peat responsibly, so we can transform it into products with the power to change the world. Before we even harvested our first crop of peat, we had extensive reclamation plans in place. Not only are those plans regulated by our state and federal permits, but they're also essential to upholding the values of responsibility, accountability, ethics, stewardship and community that are the core of APT.

We're currently working to reclaim harvested acres on our permit area in Spencer Township. Because of our full-section excavation harvest method, once we remove the peat from any one single acre, we can start the revegetation process on that acre the following summer. We have been harvesting by excavation since 2015, and we've been reclaiming those acres ever since.

Our permitted peatland has been through many transformations over the course of time. Ten thousand years ago, it was covered in glacial ice and snow. When the glaciers melted, a large glacial lake was left behind, eventually evolving into a vast peatland. At the turn of the 20th century, the area was ditched, drained and tiled in an effort to convert the peaty soil into much-needed farmland. Today, we're harvesting that highly-impacted peat and then nurturing the harvested acres with careful revegetation strategies to form a new, shallow-water wetland that we call our Reclamation Pond.



We've also discovered a nemesis: the wildly invasive hybridized cattail. These extremely prolific cattails are commonly found in disturbed wetlands (like ours) where they can form a monoculture and crowd out more desirable species. We've invested in tools to control the invasive spread so we can encourage a more ecologically diverse ecosystem throughout the Reclamation Pond.

On the brighter side, we've contracted with Jeff Stedman of Northern Ecological Services, a full-service restoration and land management company out of Esko, to introduce wild rice into the Pond. We're at the beginning of a five-year plan to build a self-sustaining population. Wild rice is a valuable ecosystem species that provides food and cover for waterfowl and other animals. Stay tuned for our progress!

With each season, we're learning more about what works (and what doesn't) to revegetate a reed-sedge peatland. Our findings may someday inform the global conversation about the lifecycle of reclaimed peatlands.

Photo credit: Lorie Shaull

Expansion on the Horizon for BioAPT

Our BioAPT microbial carrier is a critical component of managing soil health and delivering the right inoculants to millions of acres of food crops each year. Since 2003, BioAPT has quietly and effectively delivered beneficial nitrogen-fixing bacteria to fields of legumes like soybeans, lentils and peas. The result? Healthier plants and higher yields.

But this is not the time to rest on our laurels. We are developing a strategy to introduce BioAPT as a solution for other applications in agriculture, horticulture, turfgrass, environmental remediation or other market sectors. If BioAPT can find a niche in precision agriculture, oil spill remediation or specialty crops, to name just a couple of examples, imagine how much more efficient we could be at feeding the world and solving other environmental problems.

As our population continues to grow, it is essential that we seek out new and innovative strategies for feeding the world and keeping our planet habitable. We believe BioAPT is one of many possible solutions, and we're actively seeking partners and advisors who can help us introduce BioAPT to new markets.

If you or anyone in your network can help us make connections, please don't hesitate to reach out to Peggy Jones, APT VP of Sales and Research.

Contact Peggy at pjones@americanpeattech.com

TEAM HIGHLIGHT

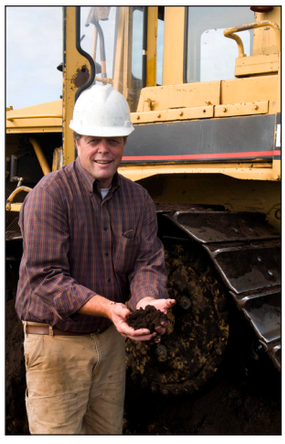
APT makes granular products from reed-sedge peat. But before the raw peat makes its way into our production plants for processing, it has already been managed in multiple ways by our field crew. We usually have two to five people working on our field crews, depending on our needs and time of year.

First, our field crews keep our harvest area in shape. You might think that the harvest area is a static system during the off-season, but we have to maintain ditches and other structures, manage water, mow grass and vegetation and keep a close eye on the fields. Beaver management is a not-insignificant activity that can require a lot of time.

Second, our field crew puts in our winter roads. Starting in December, the crew starts grading the roads for maximum frost depth so that when hauling season begins in January, we have a solid ice road to drive on. The road continues throughout the season with more maintenance and extra effort to shore up sections that are weak or breaking down. It's cold work, oftentimes during the dark hours.

Finally, our field crew keeps our stockpile in shape and available for the processing plant. The crew maintains the profile the stockpile to maximize the shedding of water off the pile, and continually pushes more raw peat toward the processing plant as peat is loaded into the plant. The crew also pre-screens the peat before it is introduced into the plant. Pre-screening rejects rocks and debris and breaks up frost chunks so that we have less problems in the plant.

NEW CEO LEADERSHIP



Doug Green has been the CEO of APT since 2011. When Doug moved into the CEO office, APT needed a strong, visionary leader who could propel the small start-up to financial stability and predictable results. So it is with mixed feelings that we announce that Doug intends to step down from his role as CEO within the next few months.

A sub-committee of the APT Board of Directors has recruited a handful of qualified candidates for consideration as the next leader of APT. The sub-committee anticipates that the new CEO will be in place by January 2023. It has not been an easy task to find the right kind of candidates. APT is an unusual kind of company, and a successful leader will continue the legacy of innovation that has set APT apart within our industry and within the larger business climate of northern Minnesota.

Doug does not intend to fade into retirement. He has long aspired to have the time and freedom to work on

special projects at APT, and he will take on a new role once the incoming CEO is fully on board. How exactly that new role will be defined is to be determined, but it will leverage Doug's unique ability to translate back-of-the-napkin concepts into products, steel and motors.

Thank you, Doug, for pouring your heart, creativity and hard work into APT! We're all excited to see where your innovation will lead us next!

UPCOMING EVENTS

Communication and Public Engagement for Healthy People and a Healthy Planet

Tri-Society Show

November 6-9, 2022
Baltimore, MD

The APT team is looking forward to making new connections and exploring opportunities for BioAPT at the Tri-Society show.

HEADWATER TECHNOLOGY UPDATE

APT's subsidiary Headwater Technologies passed its one-year anniversary in the summer of 2022. And what a year it's been! By the end of 2021, the HWT team was fully staffed and was quoting projects, selling water treatment products and seeking out new technologies. That commitment to look for the most promising new ideas in water treatment is what has, and will continue to, set HWT apart from other full-service water treatment companies.

Emerging contaminants of concern keep the water treatment industry on its toes. Every month, it seems, a newly-identified threat to clean water is identified, studied and quantified. Most people are aware that perfluorinated substances, commonly known as PFAS, are a global issue. HWT is at the forefront in the race to provide affordable solutions for PFAS contamination in water sources, from stormwater to drinking water to landfill leachate.

At the same time, the HWT team is providing treatment solutions using the tried-and-true technologies that are already available. The array of products used to make clean water can be confusing, but with their combined breadth of experience across multiple disciplines, HWT is able to provide known treatments, combined in unique ways, to solve problems. That willingness and ability to embrace all the available tools sets HWT apart and will drive its success. Happy 1st Birthday, Headwater!

PEAT: GET TO KNOW THE HUMBLE, MIGHTY SPHAGNUM

Even though most people don't know the term Sphagnum, the image of Sphagnum moss calls to mind the hummocky, wet ecosystem of bogs and swamps. In northern Minnesota ecosystems, you can often find Sphagnum mosses in wooded swamps and alder thickets–and you can learn all about Sphagnum in our new blog post.

https://americanpeattech.com/get-to-know-the-humble-mighty-sphagnum/