



THE P.E.A.T. BEAT

APT IS GROWING, EXPANDING AND INNOVATING

ABOUT AMERICAN PEAT TECHNOLOGY

American Peat Technology (APT) is a Minnesota-based peat manufacturing company built by hardworking innovators who have unearthed the power of reed-sedge peat through their development of value-added, granulated peat products. Using modern manufacturing process, we harvest, dry and granulate reed-sedge peat to create unique, natural peat products like BioAPT, the industry standard for granular peat-based Rhizobia carriers for soybean, lentil and peanut crops, and APTsorb, a granular media that removes heavy metals from waste and stormwater.

PEAT DEWATERING COMES OF AGE

If you have driven by APT within the past few years, you may have noticed our plant site seems to change as we continually expand to meet the product demands of our customers. Most recently, in 2017, we completed a 25,000-square-foot addition to house equipment for dewatering peat. That equipment is now fully functional and critical to the optimization of our production process.

But take a step back to 2015, when the concept of dewatering peat was just a wild-eyed dream scribbled on a dinner napkin. The need for an efficient, cost-effective dewatering process was driven by our growing realization that APT's dependence on cold weather for peat harvesting was putting the company at risk. Since 2003, we've been harvesting peat in the winter which involves the establishment of winter roads on the peatland to transport the peat from the harvest area to our plant. We can all agree that Minnesota winters are getting shorter and warmer, and not longer and colder. The management team at APT realized that if we could solve the problem of dewatering, we could harvest peat, via a slurry process, during the summer months and minimize our dependence on cold weather.

Now, three years later, we have not only discovered and optimized the process for dewatering peat, we have received a patent on the process and are now using dewatering in our day-to-day operations. In the summer of 2019, you will see yet another building expansion at the APT location in Spencer Township. We are extending our building to accommodate more equipment that will further refine and economize the dewatering process.

The dewatering process is one example of the home-grown ingenuity and innovation that characterize APT. We continue to find ways to add value to locally harvested reed-sedge peat, and in the process, provide jobs and economic development for Aitkin County.

DID YOU KNOW?

Not all peat is created equal. APT uses reed-sedge peat in our granular products. As the name implies, reed-sedge peat is composed of plants like reeds, sedges, grasses and forbs. Sphagnum peat, by contrast, is composed of mosses and is largely used for horticulture. It tends to be more fibrous and acidic. Both types of peat are valuable natural resources.

DOWNSPOUT FILTERS FOR TREATING ROOF RUN-OFF

One of the exciting developments at APT is the continued success of our downspout filters that remove zinc from stormwater. Consider this: every time it rains on a galvanized roof, the water that drips off the eaves is carrying dissolved zinc. In the Pacific Northwest, in particular, that dissolved zinc presents problems for native fish populations.

APT has been working with an environmental engineer to develop a turnkey treatment unit that will connect directly to a building's gutter system and treat the roof runoff before it ever hits the ground. The treatment unit is called a downspout filter. It contains a bed of the APTsorb water treatment media that removes the dissolved zinc.

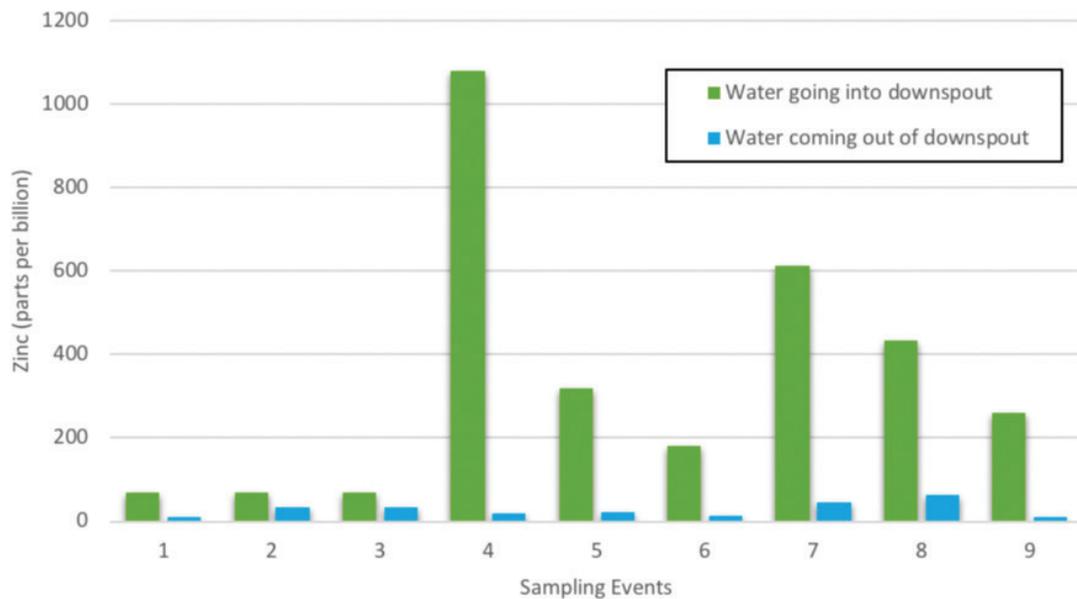
This is a prototype downspout filter that is on a building near Seattle. We are working on a new design that will have a cleaner look, but the concept is the same.

Does it work? Yes! Although we don't have a large body of data yet, our routine monitoring indicates that the downspout filter can consistently remove zinc to levels below 50 parts per billion. That is far below the zinc limit in the Pacific Northwest, which has been around 120 parts per billion. This graph illustrates how efficiently an APTsorb downspout filter can remove zinc and get our customers into compliance with their stormwater permits.



ABOVE: A prototype downspout filter in Seattle.

Removal of Zinc by APTsorb Downspout Filter



APT_{sorb}

APT_{sorb} has become a go-to tool for water treatment, particularly in stormwater remediation. It removes heavy metals from water and is driving innovation and change in the water treatment industry. APT_{sorb} can be modified to target specific metals, making it extremely effective in various applications. Ongoing research and development of APT_{sorb} has the ability to increase access to cleaner water throughout the world.

Pioneering | Environment | Agriculture | Technology **P.E.A.T McGrath Expansion Project Update**

Thank you for your continued interest and support in our P.E.A.T. McGrath Expansion Project. As the demand for our products, BioAPT and APTsorb, continues to grow, we remain dedicated to our primary goal – our commitment to our customers.

Our expansion project in McGrath is essential to the long-term success of APT, but for the current production season, we must focus our resources on innovation and customer service to meet the current demand. Therefore, for the immediate term, maintaining current operations and meeting customer expectations have taken priority over McGrath expansion efforts.

APT is a small but ambitious company, and we initially outlined an aggressive timeline to navigate a complex permitting process for APT McGrath. We're deliberately tapping the brakes so we can continue to serve our customers at the level of excellence they've come to expect. We wouldn't be APT if we did anything less.

We are maintaining an open dialogue with the regulatory agencies to map out the permitting timeline and processes, and will continue to work toward aligning the state and federal reviews so these processes will be as seamless as possible. We expect to know more about our projected timeline within the next 9-12 months.

As we move forward, we will continue to keep our customers, stakeholders and the public notified of any important changes through our website and newsletters.

APT TO SPONSOR THE AITKIN COUNTY FAIR HORSE BARN

The APT team looks forward to the Aitkin County Fair every summer. It's a great chance to connect with our community, see our youth get excited about fair activities and eat some really fantastic fair food.

We are eager to see the opening of the new Aitkin County Fair Horse Barn! APT is a major donor to the horse barn fundraising effort, and we're proud to see our name hanging on the barn. It's just one way we can support the community and be a part of the festivities.

See you at the fair July 10-13, 2019!



We're committed to keeping the lines of communication open leading up to and through our expansion process, and we welcome your questions and concerns. This newsletter will be published periodically throughout the environmental review and permitting process as a tool to keep you informed.

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Manage your subscription on our P.E.A.T. project expansion page: <http://americanpeattech.com/peat-project-mcgrath/>