



PEAT MOSS: A SUSTAINABLE SOLUTION FOR TODAY'S GROWERS

Peat moss is widely used across North America in multiple applications such as growing vegetables and flowers, and transplanting trees and shrubs. It's a natural and renewable resource that Profile® Products, a leading producer of Sphagnum peat moss, is fully committed to sustainably producing and harvesting. To do this, Profile works in coordination with organizations like the Canadian Sphagnum Peat Moss Association (CSPMA) to support peat moss sustainability and fund numerous peatland restoration research projects.

This informational brochure provides facts about peat moss or Sphagnum peat moss, including its many benefits and uses. It also details Profile's harvesting process, which follows rigorous industry standards and best management practices. Finally, it outlines Profile's role in restoration work aimed at maintaining a sustainable future for peat moss and the lands where it forms.

GET TO KNOW PEAT MOSS

Profile Products, through its line of Sunterra products, is a producer of premium Canadian Sphagnum peat moss that features fibrous blonde peat, ideal for commercial growers. The following are some facts about this useful and valuable resource:

- Sphagnum peat moss is a partially decomposed Sphagnum species whose unique cellular structure consists of large cavities that absorb air and water like a sponge.
- Peatlands are wetland ecosystems characterized by the accumulation of partially decomposed Sphagnum moss.
- Nearly all the peat moss sold in North America comes from the vast Sphagnum peatlands of Canada.
- Canadian peatlands cover an estimated 113 million hectares (305 million acres). Less than 0.015% of those have been harvested.
- Each year, more than 70 million metric tonnes (77 million U.S. tons) of peat accumulate in Canada's peatlands. Only 1.4 million tons are harvested by Canadian peat moss companies.

The result: Every year there is a significant net increase in Canada's Sphagnum peat resources.



USES AND ADVANTAGES OF SPHAGNUM PEAT MOSS

Sphagnum peat moss is a natural, organic soil conditioner that regulates moisture and air around plant roots to establish ideal growing conditions. For commercial growers, it helps:



Conserve water during the growing process.



Create hospitable growing conditions for plants through its porous fibers.



Reduce leaching of nutrients.



Protect soils from hardening.



Improve compost.

These traits make peat moss an ideal growing medium for vegetables, flowers, trees and shrubs. These uses are different and much more environmentally friendly than how peat moss has traditionally been used in Europe, where 62% of extracted peat moss is still used for energy production.

A COMMITMENT TO RESPONSIBLE PEAT MOSS HARVESTING

Profile Products follows industry best practices to harvest, process and distribute peat moss in an environmentally safe and sustainable manner. This includes employing vacuum harvesting techniques, which have become the standard in North America. This contrasts with more outdated cut block harvesting techniques, which are still widely used in Europe and can negatively impact peatland restoration efforts. The Profile Products step-by-step process is as follows:

STEP 1

SURFACE PREPARATION AND DRAINAGE PLAN

The surface vegetation is generally mulched and tilled into the uppermost layer of peat.

- The water level within the bog is reduced by about 25% by slowly directing the water off-site in a controlled manner.
- Drainage is facilitated by field ditches approx. 100 ft. apart flowing to the main drainage ditches. These flow into sedimentation ponds that discharge effluent through outlet ditches.
- The sedimentation ponds retain surface water to maximize the settlement of suspended peat particles prior to directing the water off-site.
- Once the water table has been lowered, the fields are crowned to direct water toward the field ditches, and the remaining peat area between the drainage ditches is then harrowed, leaving a layer of loose peat to dry naturally in the sun.

STEP 2

VACUUM HARVESTING

- When the surface peat has dried to the desired moisture content, it is collected by vacuum harvesters and either stockpiled on the field or hauled directly to the processing plant or to an adjacent storage area.
- Areas where loose peat have been vacuumed are immediately turned over by a rotary harrow, and the process of creating a layer of loose peat to dry in the sun is repeated.
- Typically, over the course of the summer, a layer from 6 to 10 cm will be harvested from a peat bog.

STEP 3

SCREENING

- Harvested peat moss is transported to a processing plant where it passes through a series of star screens to remove the remaining roots and sticks from the vacuum-harvested peat.
- It's screened using three different star screens, ranging from 1/8" up to 3/8", each of which is comprised of two 9-foot sections controlled by variable-speed drives. This enables custom blends that can increase or decrease the desired amount of coarse peat particles.

STEP 4

PACKAGING

- Screened peat is then passed through a compression baler, where the loose peat is compressed, baled and packaged into either 64 or 135 cubic foot bales.

STEP 5

DISTRIBUTION

- The compressed bales are then palletized, stacked and stored in preparation for shipping.
- Typically, between 22 and 26 pallets are loaded on each tractor-trailer and delivered by rail and/or roadways to our customers throughout North America.



VERIFLORA CERTIFICATION AND WHY IT MATTERS

Profile Products recently earned the renowned Veriflora Responsibly Managed Peatlands designation for its family of Sunterra Sphagnum peat products. The Veriflora Responsibly Managed Peatlands program is the world's leading certification process for sustainable peat moss cultivation.

Certified producers must demonstrate a commitment to ecosystem protection, integrated waste management and support for workers' rights. Certified companies are rigorously audited by SCS Global Services on an annual basis to ensure consistent quality. SCS has been providing global leadership in third-party quality, environmental and sustainability verification, certification, auditing, testing and standards development for more than 30 years.



TAKING RESTORATIVE ACTION TO ENSURE SUSTAINABILITY

Profile Products also complies with best practices as they relate to peatland restoration. Profile, along with the other members of the Canadian Sphagnum Peat Moss Association (CSPMA), have funded numerous peatland restoration research projects. This includes projects related to:

- The development of restoration techniques.
- Plant recolonization after harvesting.
- The hydrology, geochemistry and microbiology of natural, harvested and restored peatlands.
- Peatland conservation strategies.

The results of these projects form the foundation upon which all Canadian peatland restoration techniques are based. Each year, these efforts result in thousands of hectares, or acres being restored or reclaimed.



TO LEARN MORE ABOUT PROFILE PRODUCTS, OUR FAMILY OF SUNTERRA SPHAGNUM PEAT PRODUCTS AND OUR PEAT MOSS HARVESTING PROCESS, SCAN THE QR CODE OR VISIT SUNTERRAHORTICULTURE.COM/ABOUT-PEAT-MOSS/.

Profile® Growing Solutions