Climate and the Environment

Organics Management & Greenhouse Gas Emissions

Climate change, caused by greenhouse gases (GHGs), is one of the biggest threats to the environment.

Greenhouse gases, such as carbon dioxide, methane, nitrous oxide, and fluorinated gases, trap heat in the atmosphere causing the effects of climate change.

The carbon footprint of a process or activity is the total weighted quantity of these gases.

The largest sources of GHG emissions include activities related to:

- Transportation
- Energy Production
- Agriculture
- Industry

The management of non-hazardous organics, including biosolids, manure, and food waste, generates GHG emissions directly through the natural decomposition of organic carbon into methane and through the use of fossil fuels in processing equipment and transportation.

Additionally GHG emissions occur indirectly when materials, such as chemicals, or electricity are consumed in processing activities.

At Lystek, we provide solutions for non-hazardous organics management that reduce GHG emissions through beneficial resource recovery.

Quantified Impacts from LysteGro Application:

Since 2008, Lystek has recovered:

- 300,000 dry tons of biosolids and organics
- 16,500 tons of Nitrogen
- 11,000 tons of Phosphorus

This nutrient recovery and carbon sequestration has avoided:

- 150,000 metric tons of CO_2e *
- **Annual emissions of 33,000 gasoline burning cars**

*CO_2e stands for carbon dioxide equivalence. The unit used to express the total carbon footprint of a process/activity

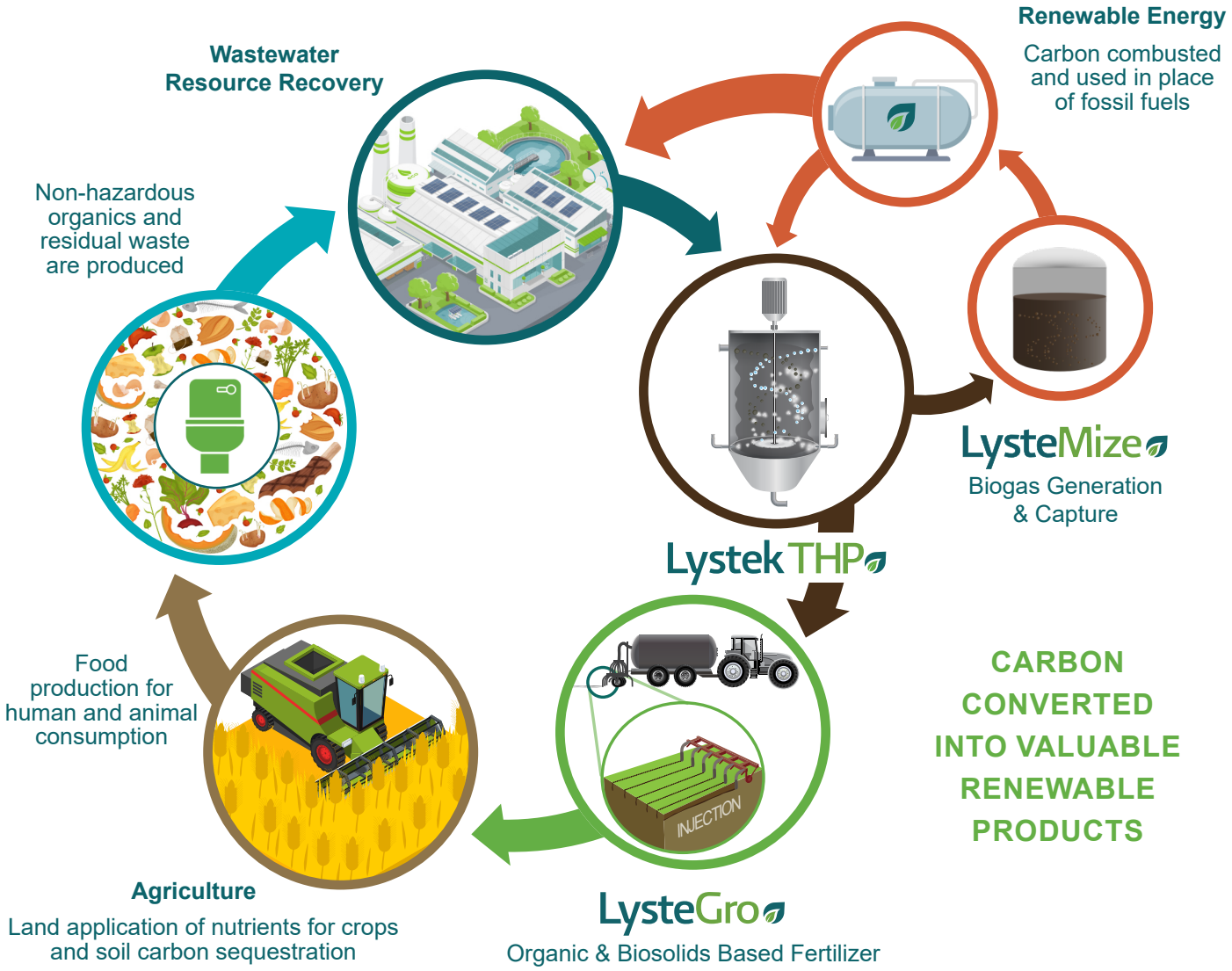
Lystek processes have a net negative GHG footprint.

Lystek's Processes for GHG Reduction

Lystek THP®, Lystek's patented process, hydrolyzes residual organics into an EPA Class A or CFIA regulated fertilizer. Known as LysteGro®, this product recovers valuable nutrients and ensures that carbon from these organics is sequestered in the soil.

Lystek's hydrolyzed feedstock can be used to enhance anaerobic digestion improving biogas yields. This process is called LysteMize®. Production and use of biogas can replace fossil fuels reducing the overall carbon footprint of an organics management facility.

Lystek's Sustainable Carbon Cycle



The Lystek process uses a **closed carbon cycle**. Agricultural resources are not lost through incineration or landfilling, and Lystek's end-products are used as a sustainable fertilizer or for renewable energy production.

For every organics management facility, there are additional carbon reductions associated with location and operations. **Contact us** to find out more about how your facility could benefit from a low-carbon resource recovery solution.

t: 226.444.0186 • tf: 888.501.6508 • e: info@lystek.com