

New Petroleum Free World: Plant-Based Sustainable "Green" Materials and Processes

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Research Brief Series:
The Intersection between
Environmental Policy and
Health
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The Problem

- Natural resources are being extracted faster than the Earth is able to produce them
- Most resins are derived from petroleum, NOT biodegradable, and NOT sustainable
- There is NO environmentally friendly way to dispose of composites - they stay in landfills for centuries without degrading
- Green materials are made in a sustainable way and degraded or composted into soil
- Advanced Green Composites do not degrade in built environments - outside, resins degrade in 3 months

KEY TAKEAWAYS

-  1 "Green" materials are environmentally friendly alternatives to petroleum based manufactured products
-  2 "Green" materials can be utilized in housing, aerospace, automobiles, medical supplies, sporting goods, etc.
-  3 Soy proteins are plant-based, yearly renewable (sustainable), biodegradable, and inexpensive

94%

OF COMPOSITES
END UP IN
LANDFILLS

6-8% of all petroleum is used to produce plastics, polymers, etc.

Advanced Green Composites //

Material defined by high strength and stiffness, developed using plant and starch based resins

Policy Implications

To face the challenges of climate change, manufactures must adopt environmentally sustainable practices. The use of plant-based advanced green composites can help New York State reach its progressive sustainability goals and reduce the unsustainable demand for natural resources.

Life-cycle of Green Materials

