

Whole Cycle Tuesday

Why It Matters

Short paper fiber represents a practical example of circular materials management. Instead of landfilling a paper recycling residual, SPF can be redirected into composting systems and returned to soil as organic matter.

For compost operators, municipalities, and regulators, understanding the characteristics of SPF helps ensure it is used effectively and responsibly, maximizing resource recovery while protecting environmental quality.

www.agresourceinc.com

info@agresourceinc.com



"The environment is where we all meet; where we all have a mutual interest; it is the one thing all of us share." — Lady Bird Johnson

What Is Short Paper Fiber?

Short paper fiber (SPF) is a residual material generated during the recycling of mixed waste paper at paper mills and recycling facilities. While long, intact cellulose fibers are recovered and reused to manufacture new paper products, shorter and degraded fibers are screened out during processing. These shorter fibers, combined with fine organic particles and minimal residuals, are collectively referred to as short paper fiber.

Rather than being discarded as waste, SPF is increasingly recognized as a valuable feedstock in composting, soil blending, and beneficial use applications.

How Short Paper Fiber Is Produced

During paper recycling, incoming material is pulped and mechanically processed to separate usable fibers from contaminants such as plastics, metals, and grit. Screens and cleaning systems classify fibers by size and quality. Longer fibers are retained for papermaking, while shorter fibers, typically too small to maintain paper strength, are removed. The resulting material is:

- Fine-textured and absorbent
- Typically 40–60% moisture upon generation

Role in Composting

Short paper fiber functions primarily as a carbon-rich bulking agent.

Its fine particle size allows it to:

- Adjust carbon-to-nitrogen ratios
- Absorb excess moisture from food waste or biosolids
- Improve pile structure when blended properly

However, because SPF is fine-textured, it does not provide the same structural porosity as wood chips.

Soil and Beneficial Use Applications

In finished compost or soil blends, short paper fiber contributes stable organic matter that can:

- Increase soil organic carbon
- Improve water-holding capacity
- Enhance cation exchange capacity (CEC)
- Support microbial activity

- High in organic carbon

