

ENVIRONMENTAL FOOTPRINT COMPARISON TOOL

A tool for understanding environmental decisions related to the pulp and paper industry



WOOD USE

EFFECTS OF NON-WOOD FIBER USE ON LAND AND WOOD USE

Land Area Requirements

Land area required for the sourcing of fiber depends upon the specific fiber, the intensity with which it is cultivated, and the fiber mix and processes used to produce an end product. Dedicated agricultural crops such as kenaf are capable of yielding more fiber per acre of land cultivated, though not necessarily more pulp combinations suitable for specific paper grades. Mechanical pulping of softwoods, for example, would require a larger land area for fiber growth than the production of chemi-mechanical pulps from whole-stalk kenaf. Yet the land advantage of dedicated agricultural fiber would be lost in the blends of short and long fiber required for printing and writing papers.

Fiber yield, whether agricultural or silvicultural, is not fixed. There has already been significantly increased agricultural productivity, and silvicultural productivity is at the threshold of similar improvement. Therefore, relative land area requirements are likely to change over time. More important than the amounts of land that must be dedicated to provide wood or agricultural fiber is the impact those respective land uses have on the land itself and its habitat values.

Recommended Reading

Conservatree. n.d. Environmental Paper Listening Study Question 42: What is the comparison of impacts between agricultural residues and on-purpose crops?

<http://www.conservatree.org/paperlisteningstudy/TreeFree/question42.html>

Blann, K. 2006. *Habitat in agricultural landscapes: How much is enough? A state-of-the-science literature review*. Washington, DC: Defenders of Wildlife. http://www.defenders.org/resources/publications/programs_and_policy/biodiversity_partners/habitat_in_agricultural_landscapes.pdf

National Council for Air and Stream Improvement, Inc. (NCASI). 2006. *A primer on the top ten forest environmental and sustainability issues in the southern United States*. Special Report No. 06-06. Research Triangle Park, NC: National Council for Air and Stream Improvement, Inc.