

Suggested Plant Materials for Papermaking

Papermaking authorities/authors typically categorize plant material for papermaking in these different ways: leaf fibers, grass fibers, bast fibers, and seed fibers. Category doesn't matter-what matters is how you process them for the papermaking. In general, there are two ways to process fibers, depending on how hard the fiber is to remove from the source. See "Flowchart for Papermaking" for processing instructions for leaf and bast fibers wherein grass fibers have been lumped with leaf fibers. Seed fibers are not addressed for processing as these usually require specialized equipment to remove the seed. However, some seeds may be easily removed from fiber (milkweed species), and exploration is encouraged.

Though this is written for states in the Southern U.S., many of the plants listed have wider distributions naturally or can be found as cultivars in home gardens or nurseries. In some cases, plant material can be acquired from an agricultural source. Don't be afraid to experiment with your own native sources of material. Simply be careful in your choice, making sure that you don't harm native populations or misidentify the plant harvested.

Some leaf fibers require that their outer skins (sometimes green outer layer) be stripped before retting due to their toughness. Yucca harvested in the subtropics and tropics would likely require the outer skin to be stripped. However, Yuccas harvested in South Carolina do not typically require this. One can simply ret leaves in lye and the outer tough layer will be dissolved. However, this may not always be true as growing conditions and time of harvest greatly affect the quality of the plant. Yucca harvested at the end of the growing season or in particularly harsh environs (full sun, extremely sandy soil) may have a fully developed outer epidermis (completely hardened) and thus may need to be stripped prior to retting.

Leaf fibers

- Pampas grass (*Cortaderia selloana*)
- Iris spp.*
- Crocsmia spp.*
- Yucca filamentosa* or other Yucca species
- Century plant (*Agave spp.*)
- Canna lily (*Canna spp.*)
- Musa spp.* (Banana or also called Abaca or manila hemp)
- Cattails (*Typha spp.*)
- Papyrus (*Cyperus papyrus*)-Can be used for paper in two ways-either as traditional papyrus paper or processed as described in Flowchart for Papermaking.
- Rush (*Juncus spp.* Or *Scirpus spp.*)
- Phragmites australis* (Common Invasive wetland plant-problem in the coastal plain) See this website for the differentiation between native Phragmites species and that of the invasive:
<http://www.invasiveplants.net/phragmites/morphology.htm>
- Wheat straw (*Triticum spp.*)
- Corn stalks and husks (*Zea mays*)

Bast fibers

- Mulberry (*Broussonetia papyrifera*, *Morus rubra*, *Morus alba*)
- Flax (*Linum usitatissimum*)
- Indian hemp (*Apocynum cannabinum*)
- Milkweed (*Asclepias spp.*)
- Hollyhock (*Althea rosea* or other Mallows)
- Paper birch (*Betula papyrifera*)
- Indian hemp (*Crotolaria spp.*)
- Scotch broom (*Cytisus scoparius*)
- Kudzu (*Pueraria montana var. lobata*)
- Wisteria (*Wisteria sinensis* or *W. floribunda* – recommend these invasives over the native)
- Cotton (*Gossypium hirsutum*)
- Fig (*Ficus bengalensis*)
- Willow (*Salix spp.*)
- Elm (*Ulmus spp.*)

A word about harvesting plants for papermaking

If you are harvesting plant material from land that does not belong to you, make sure that you have permission of the landowner in order to do this. Additionally, do not harvest from state and federal forest lands without a permit. Be particularly careful in harvesting plant material that you are not familiar with so that you do not harvest federally or state threatened or endangered plants.

If you are unsure, see: <http://endangered.fws.gov/wildlife.html#Species> or http://www.dnr.state.sc.us/pls/heritage/county_species.select_county_map