

Types of Plant Fibers

- bast (inner barks of trees and shrubs. also in some herbaceous plants)
 - nettle, milkweed, tulip poplar, kudzu
- leaf (from plants with long narrow leaves)
 - daylily, iris, daffodil, yucca, alliums
- grass (miscanthus, bamboo)
- seed- often have a waxy coat that needs to be broken down (cotton, milkweed)

Harvest

Bast fibers can be harvested from herbaceous plants before plants go to seed or left in the field to be retted (rotted) over winter. Ferment in water or steam to extract fibers.

Inner barks can be easily stripped from trees and shrubs in May and June. Remove outer bark first. Then strip inner bark from core of plant. When harvesting inner bark in winter, plants need to be steamed in order to remove fiber from the core.

Leaves and grasses are best harvested once the plant has had a chance to grow and flower. Harvest while green and let dry in a cool dark place.

Seed fibers are harvested at maturity.

Processing Plant Material

Tools and Equipment

Burner/heat source- best to cook outside
Stainless steel or enamel pot
Soda Ash
scale
safety gear- gloves and eye protection
long handled spoon
strainer
water source

Process

1. Harvest plant fibers and let dry.
 2. Weigh plants. Cut into pieces ½"-1" long.
 3. Soak plants in water overnight.
 4. Fill a pot with water and bring to a boil.
 5. Weigh out soda ash- 20% weigh of goods.
- example: 4 ounces of plants fiber = 113g

Making Paper with Plant of Appalachia

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$113g \times 0.20 = 22g$ soda ash per 113 grams of plant fiber

6. Add soda ash to water. Stir to dissolve. *Always add caustic substance to water. Never add water to caustic substance.
7. Once soda ash is dissolved, stir in plant material.
8. Bring to a boil and cook 1-3 hours, until plants have broken down but fibers are still in tact.
9. Rinse plant material thoroughly to remove soda ash residue. Water should run clear or have minimal color.
10. In small batches, process plant material with water in a blender.

Paper Making

Tools and Equipment

mould and deckle
vat
press boards
felts/pellons
press (can be rocks, blocks, people)
space to dry papers

1. Add several inches of water to your vat.
2. Add as much pulp as necessary in order to pull sheets at desired thickness.
3. Stack the deckle on top of your mould and bring towards you through the vat of pulp.
4. Shake gently left to right, front to back, until surface of pulp is glass-like. Let drain.
5. Remove deckle and couch onto wet felts. If using pellons, sandwich your couched sheets between two pellons.
6. Continue to pull sheets and couch onto your post.
7. When finished, add a few more felts. Place press board on top of post.
8. Press stack using rocks, blocks or human power. Work slowly and continue to add weight until water no longer runs off the stack.
9. Leaving paper on the pellons, hang to dry.
10. Once dry, peel off pellow and iron or weigh them down under something heavy to flatten.

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Resources for Plant Based Papers

Books

Papermaking with Garden Plants and Common Weeds- Helen Hiebert
The Papermaker's Companion- Helen Hiebert
Japanese Papermaking- Timothy Barrett

Blog

www.paperslurry.com

Article

<http://www.arts.ucsb.edu/faculty/reese/classes/papermaking/Sheril%20Cunning.pdf>

Suppliers

Highwater Clay- soda ash
Carriage House Papers- cotton linters, abaca, formation aid, heat shrink screen, sizing and so much more
Twinrocker – all papermaking supplies listed above and more
Joann Fabrics- heavyweight Pellon and felt by the yard
Dick Blick- blotter paper for drying paper under restraint