

# Grow Your Own Bowstring

by Dick Baugh (5/7/04)

It's easy to grow your own flax for bowstrings, sewing or anything else. Properly processed flax fibers are very strong and have little stretch, the two most important characteristics for bowstrings. There are different horticultural varieties of flax, one optimized for seed production and another optimized for fiber production. I don't know how different the two are. The variety that is easiest to obtain is the seed variety. Go to your friendly neighborhood health food store and buy some flax seeds. It's that simple.

## **Planting**

Prepare the ground and put in the seeds. How many seeds per square foot of ground? I give you the same answer "She who must be obeyed" gives when asked how long does she bake her bread, "Enough". Plant seeds very close together to encourage tall growth and few branches. Cover with about 1 inch (2.5 cm.) of soil. I mentioned what I was doing to Alice Tulloch, a fiber, spinning, knitting, fabric maven. Her advice on flax culture was "Think Ireland". The smeraldic countryside of Ireland is a result of plentiful rain and sun. I put the seeds in the ground in early March and watered them almost every day. In early May most of the stalks in the full-sun patch were about 30 inches (76 cm) tall and producing ephemeral pretty blue blossoms.



*Figure 1*  
**The crop, next to a rose bush, just before harvesting.**

### **Harvesting**

The flax was pulled from the ground on June 5, 2004, after it no longer put out very many flowers. Many of the stalks were over 36 inches long. Pull, don't cut because you want the stalks as long as possible. Let the stalks dry completely before the next step.

### **Rippling**

Remove the seed pods by pulling the stalks through a coarse metal toothed comb.

*Figure 2*  
**Rippling**

**Retting**

Use bacterial decomposition to help separate the desired bast fibers from the woody stems. The amount of time required to accomplish the retting is highly variable, depending on the temperature and quality of the water used. It may take from five to fourteen days. The general rule is that it won't be ready until the stuff starts to smell a little bit. I retted the flax in a plastic garbage can. After filling the can half full of tap water, I threw in a shovelful of dirt. The reason for the dirt is that our city water contains chloramine as a disinfectant. The dirt should overwhelm the disinfectant so that bacterial action will start.

**Testing**

When you think the retting is complete, pull out a couple of stalks and let them dry. The bast fiber should separate easily from the stem. If not, then continue the retting. After the retting is completed the stalks must be rinsed and dried.

**Dressing**

The general process of separating the fibers from the stems and preparing them for spinning. It consists of:

**Breaking**

Flatten the stalks with a beetle (wooden mallet). Don't hit them so hard that you cut the fibers. Next pass them through a gizmo like Figure 3 to break up the stems into small pieces.

*Figure 3*  
**Breaking up the woody part of the stems.**

**Scutching**

Pass the broken stalks through a metal toothed comb to remove the woody stem fragments. I made mine from finishing nails in a piece of hardwood. You should obtain a skein of long fibers with practically none of the stem adhering. Tow, the short fibers that remain in the comb, are less desirable. I bought some beautiful commercial flax with fibers from XX to YY long. Beautiful stuff. My home grown stuff has somewhat shorter fibers. For the best results, scutching was done with coarse, medium and fine scutchers.

*Figure 4*  
**Using a simple scutching comb made from finishing nails.**

*Figure 5*

**Part of the finished product. A few fragments of stem, indicating hand processing, can be seen.**

## **From Fiber to Bowstring**

The next step is to spin the fibers into small diameter cord. The cord should be small enough in diameter that at least four plies are needed to make up the finished bowstring. One ounce (438 grains = 28.4 grams) of fibers should be plenty to make a heavy duty bowstring. The best description of how to make a bowstring from unspun flax fibers to single ply cord to finished bowstring is in Tim Baker's chapter on bowstrings in Volume 2 of the *Traditional Bowyer's Bible*. He states that a string for a fifty pound bow made by a novice would weigh about 300 grains. A string for the same bow made from good material by an expert would weigh about 100 grains. Other descriptions on how to make single-ply cord with a drop spindle can be found on the web. The main objective of this article is to inspire you to grow and process your own flax fiber. Once you have the fiber you are on your own. There are plenty of information sources out there on how to spin fibers into cord and make bowstrings. **Get busy!**



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