

## Sunn Hemp Shines in Massachusetts

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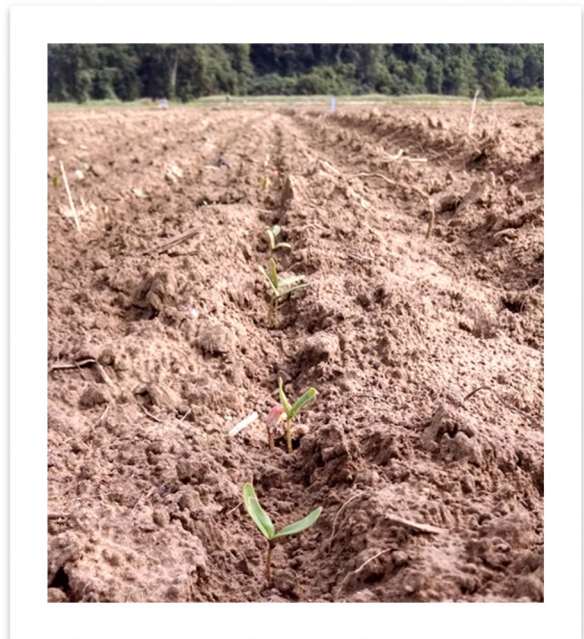


Foreground: Testing out sunn hemp as mulch and fertilizer for garlic, fall 2017; Background: a field of flowering sunn hemp before winterkill, early November.

Sunn hemp is a new, summer crop for us in the Northeast. Despite its name, Sunn hemp (*Crotalaria juncea*) is not related to the industrial hemp you may be familiar with (*Cannabis sativa*). The Sunn Hemp plant bears only a mild resemblance to *Cannabis*, and is actually a legume in the same family as peas and beans. As a legume, Sunn Hemp has a relationship with bacteria that convert atmospheric nitrogen into plant-available nitrogen. It is believed that this tropical crop has been grown for hundreds of years, and it remains popular in India, Bangladesh, and Brazil. Sunn Hemp can be used for forage, fiber, or as a green manure to provide nitrogen to subsequently planted crops.

Modern interest in Sunn Hemp in the U.S. surged in Hawaii in the 80's. Research spread across the southern U.S. in the 90's through present, with Mid-Atlantic States also taking a recent research interest. Within just the past 2-3 years, a few seed companies have started readily supplying Sunn Hemp throughout the U.S.

Four years ago, we tried planting this crop at the UMass Research Farm and discovered we can grow Sunn Hemp, too. Despite our cooler climate, the hot summers in Massachusetts are sufficient for this tropical crop; in the 2016 drought, Sunn Hemp remained high performing while other crops suffered.

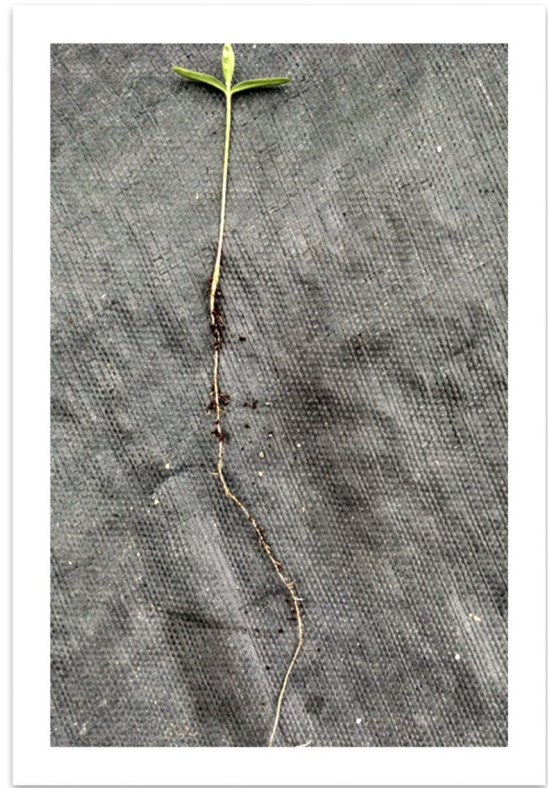


*Spouts appear on 7-15-16, just three days after planting on 7-12-16.*

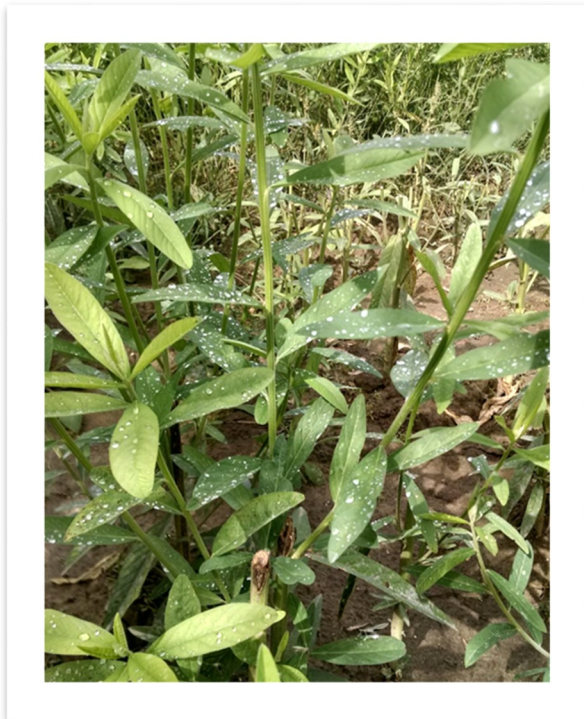
We have launched several experiments to identify how this crop might suit our local growers. Our primary goals at this time are identifying

1. When and how to plant the crop;
2. Management for optimum forage yield and quality;
3. The amount of nitrogen and biomass that this crop can produce;
4. Basic life-cycle characteristics specific to the Northeast region;
5. Disease and pest susceptibility.

Our early results have been promising: Sunn hemp planted for use as a summer cover crop on July 12, 2016, grew over 8 feet tall and produced more than 5 tons of dry matter per acre in just 90 days. Sunn hemp planted on July 12 for forage provided two cuttings within 80 days totaling 2.5 tons of dry matter per acre suitable for animal feed when harvested at a height of 24-30 inches.



*The long root of a young Sunn Hemp seedling.*



*Sunn hemp regrowth for a second cutting for forage.*

This research was presented at the Northeast Organic Farming Association Summer Annual Conference on August 11, 2017, where we shared more details on what we have learned so far. If you are interested in this crop, please contact Sam Corcoran at [sglazecor@umass.edu](mailto:sglazecor@umass.edu). Additional results from 2016 and 2017 field trials, as well as greenhouse assessments, will be made available in future newsletters.