

# Cornell Hemp

<http://hemp.cals.cornell.edu>

## Evaluation of hemp grain and fiber cultivars in New York State in 2021

Jamie Crawford, Jesse Chavez, Ryan Crawford, Jason Schiller, Luis Monserrate, Jacob Toth, Larry Smart, Julie Hansen and Virginia Moore

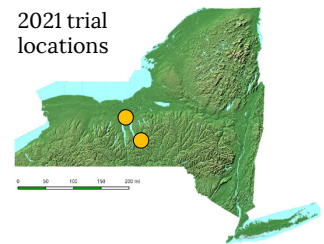
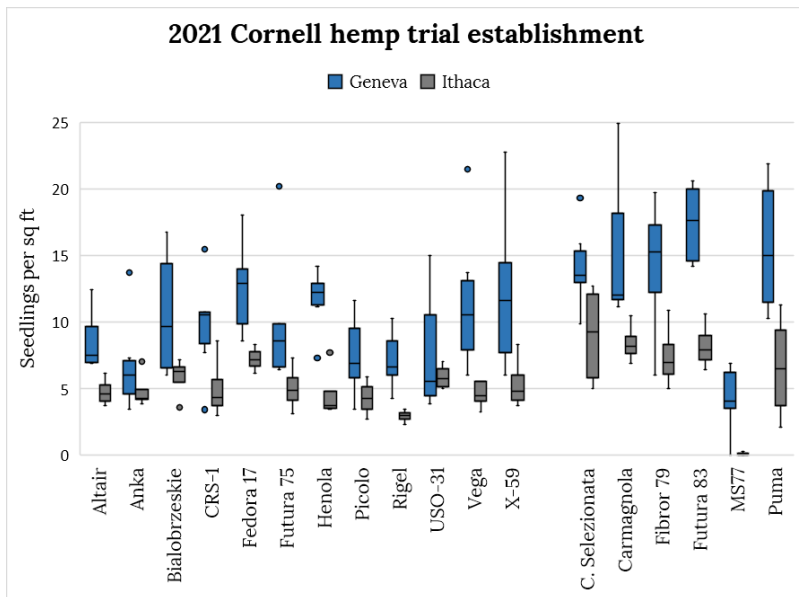
### Locations:

Ithaca, NY: 37 grain, dual-purpose, and fiber hemp cultivars were seeded in replicated small plot trials at the Cornell University Agricultural Experiment Station. These trials were conventionally managed with 75 lbs N as 22-9-9 applied pre-planting and 75 lbs N as ammonium sulfate (22-0-0) applied 4 weeks after establishment.

Geneva, NY: 18 grain, dual-purpose, and fiber hemp cultivars were seeded in replicated small plot trials at Cornell AgriTech. These trials received 75 lbs N as pelleted composted chicken manure (Kreher 5-4-3) pre-planting.

### Stand establishment:

Planting was accomplished using a cone seeder at 20 live seeds/ft<sup>2</sup> for grain and dual purpose with a goal of 15 seedlings/ft<sup>2</sup> and 40 live seeds/ft<sup>2</sup> for fiber cultivars with the goal of 30 seedlings/ft<sup>2</sup>.



Ithaca (McGowan) – June 7  
Tile drained silt and fine sandy loam  
Geneva (RN) – June 11  
Well drained to moderately well drained loam

## 2021 growing season so far:

While initial establishment in Geneva was far better than that in Ithaca, heavy rains in the month of July saturated soils (see figure). The trials in Geneva were established on a flatter field that was unable to drain. Parts of the trial suffered from extreme stunting (Photo 1). The trials in Ithaca were planted on a slight slope so excess water could run off (Photo 2).

The trials in Ithaca were planted on a slight slope so excess water could run off (Photo 2).

## Harvest yield and quality assessment:

We will harvest the grain and dual-purpose plots with a small plot combine, weigh dry grain, and then analyze for oil and protein content. Fiber types will be cut with a sickle bar, retted, and weighed. Female flowers in each plot will be tested for cannabinoids including THC and CBD.

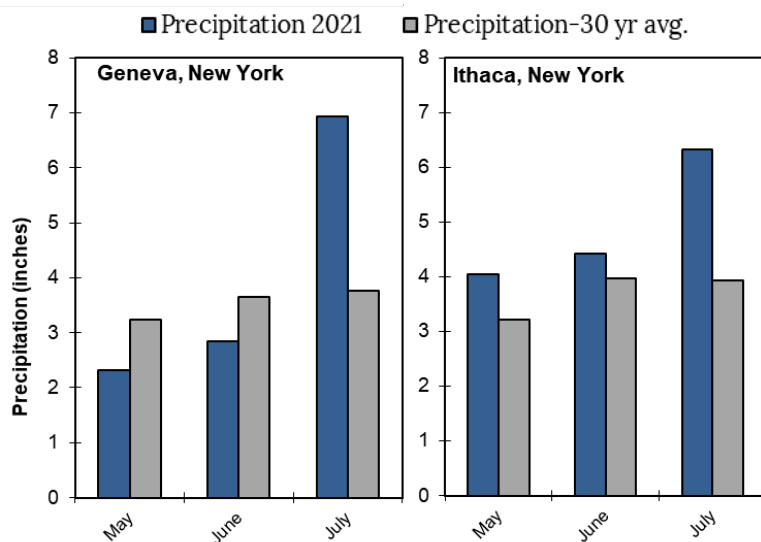


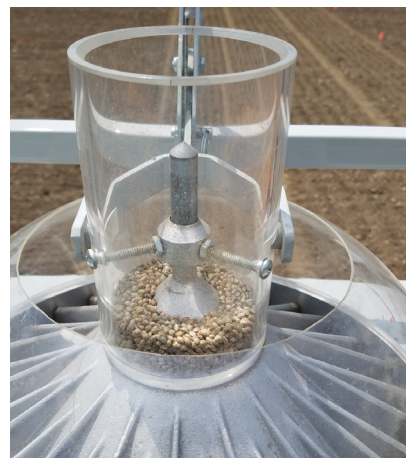
Photo 1: 2021 fiber trial in Geneva, NY



Photo 2: 2021 fiber trial in Ithaca, NY

We have received grain and fiber hemp seed from the following companies:

Company	Website
Fiacre Enterprises	<a href="https://fiacre-enterprises.com/">https://fiacre-enterprises.com/</a>
Hemp Genetics International*	<a href="https://hempgenetics.com/">https://hempgenetics.com/</a>
Hemp Harvest Works	<a href="https://hempharvestworks.com/">https://hempharvestworks.com/</a>
IND Hemp, LLC.	<a href="https://www.indhemp.com/">https://www.indhemp.com/</a>
International Hemp	<a href="https://www.international-hemp.com/">https://www.international-hemp.com/</a>
King's AgriSeeds Inc.	<a href="https://kingsagriseeds.com/">https://kingsagriseeds.com/</a>
Parkland Industrial Hemp Growers*	<a href="https://pihg.net/">https://pihg.net/</a>
Rohrer Seeds and Supplies	<a href="https://rohrerseeds.com/">https://rohrerseeds.com/</a>
Schiavi Seeds	<a href="https://www.schiaviseeds.com/">https://www.schiaviseeds.com/</a>
Seedway, LLC.	<a href="https://www.seedway.com/">https://www.seedway.com/</a>
UniSeeds, Inc.*	<a href="http://www.uniseeds.ca/en/">http://www.uniseeds.ca/en/</a>



\* Companies also have hemp breeding programs in addition to being seed distributors