

Fiber Hemp Trial at Rodale Institute-Pocono Organic Center (RI-POC)

Hemp (*Cannabis sativa* L.) is an herbaceous plant with ~ 50,000 declared uses that has been grown in North America since the 17th century. Hemp is grown for a variety of purposes such as fiber production, paper industry, and creation of construction materials. Hemp can be produced in a variety of soil types and climates. Fiber and oilseed/grain hemp are collectively known as industrial hemp. Hemp plant contains numerous phytochemicals, including delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD) with a higher concentration in floral parts of the plant. Hemp produces around 2.5 times more fiber than cotton which nominated this plant species as an alternative for other natural sources of fiber.

Researchers at the Rodale Institute-Pocono Organic Center are conducting a two-years research trial to evaluate the effect of genetic and agronomic management factors on fiber hemp yield and quality. In this research project, four different varieties of industrial hemp (MS-77, Futura-75, Santhica-27 and Han-NE) were planted in a research site located at Pocono Organics. Seeds were planted on June 15, 2022 with a density of ~1M plants/acre at the depth of 0.5 inches. During the early growing season, Fractional Green Canopy Cover (%FGCC) data were collected with the aim of quantifying chlorophyll intensity and foliar growth in the field. To assess %FGCC, photos of the foliage were taken and analyzed by the Canopeo app (this application counts the ratio of green leaves to bare soil). Results revealed that Han-NE variety has a greater %FGCC in comparison with other tested varieties. More data will be collected during the harvesting season and the results will be published and shared accordingly.

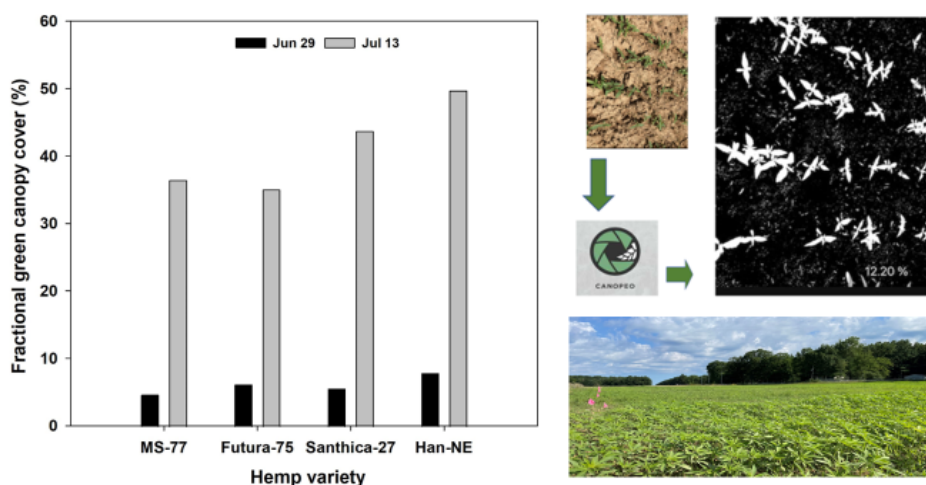


Fig. 1. Fractional Green Canopy Cover (%FGCC) was measured to quantify chlorophyll intensity and foliar growth in fiber hemp beds

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