

Managing Hemp Soil Fertility in NC

June 2020

Soil fertility guidelines for floral, fiber, and seed/grain hemp are included in **Table 1**. The fiber and seed/grain hemp recommendations are based on peer reviewed published research. The floral hemp guidelines are developed from the fiber and seed/grain recommendations, on-going NCSU and NCDA floral hemp research, and common practices of NC farmers. Base actual nutrient applications on a recent soil test report (NCDA&CS Soil Test Crop Code 310) as well as soil type, cropping history, and environmental conditions. **The target pH for most North Carolina soil is 6.2.** (<http://www.ncagr.gov/agronomi/sthome.htm>).

To manage in-season fertility, submit leaf tissue samples to the NCDA&CS Agronomic Lab (<http://www.ncagr.gov/agronomi/uyrplant.htm>).

Table 1. Soil fertility guidelines for floral, fiber, and seed/grain hemp.

Production	Production Environment	Nitrogen ^a (N) (lbs/ac)	Phosphorus ^b (P ₂ O ₅) (lbs/ac)	Potassium ^b (K ₂ O) (lbs/ac)	Sulfur ^b (S) (lbs/ac)	Boron (B) (lbs/ac)	Target pH ^c		
							MIN ^d	M-O	ORG
Floral Hemp	Open Beds Plasticulture	80–120	0–150	0–150	0-25	0–1	6.2	5.5	5.0
Fiber Hemp	Field	50–100	0–150	0–150	0-25	0–1	6.2	5.5	5.0
Seed/Grain Hemp	Field	100–150	0–150	0–150	0-25	0–1	6.2	5.5	5.0

^aTotal nitrogen for the season.

^bBase field specific nutrient application rates on a recent soil test report as well as soil type and crop history.

^cThe NCDA&CS Soil Test Report target pH is based on soil class due to highly variable organic matter levels in soils, particularly in eastern NC. Soil class is mineral (MIN), mineral-organic (M-O), or organic (ORG).

^dThe target pH for most North Carolina soil is 6.2.

**For further assistance, contact the Regional Agronomist that serves your county
(<https://www.ncagr.gov/agronomi/documents/RAMAP.pdf>) or
The Agronomic Division at 919-733-2655.**

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