

# Influence of Date of Sowing and Nutrient Levels Supply on Sunn Hemp Seed Production

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Application of chemical fertilizers results in adverse effects on soil health, which could be replenished by incorporation of organic amendments viz., green manure, green leaf manure, farmyard manure, etc. The unavailability of good agronomic practices is the main problem in cultivating green manure crops. In summer, many agricultural lands are fallowed in the tropical region due to environmental constraints, and these can be effectively utilized for the cultivation of green manure to produce quality seeds. In this regard, a field experiment was conducted in Sunn Hemp during summer with different sowing dates ( $D_1$  - January 4<sup>th</sup> week,  $D_2$  - February 1<sup>st</sup> week and  $D_3$  - February 2<sup>nd</sup> week) and nutrient levels ( $N_1$  - 20:40:20 kg NPK ha<sup>-1</sup>,  $N_2$  - 25:50:25 kg NPK ha<sup>-1</sup>,  $N_3$  - 30:60:30 kg NPK ha<sup>-1</sup> and  $N_4$  - 12.5 t FYM ha<sup>-1</sup>). Field investigation results revealed that all growth characters were relatively higher in February second week sown Sunn Hemp with the nutrient application of 30:60:30 kg NPK ha<sup>-1</sup>. However, yield attributes such as the number of capsules per plant, number of seeds per capsule, seed index, pod weight per plant, pod setting percentage, pod filling percentage, flower shedding percentage, seed yield, stalk yield, and harvest index and economics were significantly ( $p < 0.05$ ) higher in Sunn Hemp sown in the 4<sup>th</sup> week of January coupled with the nutrient application rate of 30:60:30 kg NPK ha<sup>-1</sup>. The yield increase of 32.1 percent was associated with Sunn Hemp sown in the 4<sup>th</sup> week of January over February 1<sup>st</sup> week. Hence, Sunn Hemp sown in the 4<sup>th</sup> week of January with the nutrient application of 30:60:30 kg NPK ha<sup>-1</sup> could be highly beneficial to the farming community in the western agroclimatic zone of Tamil Nadu.

**Keywords:** Date of sowing, Green manure, Growth characters, Nutrient level, Sunn Hemp