

## Hemp Defoliation Technology and Management before Harvesting

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**Abstract :** Hemp (*Cannabis sativa* L. ssp. *Sativa*) cultivation for fiber is limited by extremely high labor cost, especially for the removal of the leaves before harvest. This study evaluated chemical defoliant as a means to remove the leaves of hemp before harvest, in an effort to reduce labor expenditures in the production on hemp fiber. This study was conducted by spraying the leaves of hemp with five different treatments: saline solution, Urea ( $\text{CH}_4\text{N}_2\text{O}$ ), Ethepon, copper Sulphate ( $\text{CuSO}_4$ ) and water (control) before harvesting. The largest percentage of leaf loss 6 days after spraying was with saline solution (43%), followed by Ethepon (32%). However, saline solution also caused drying of the stems but Ethepon did not. Thus, Ethepon was evaluated in the second experiment by spraying with Ethepon concentrations of 0, 10, 15 and 20 ml per 1 liter of water at 7 days before harvest. Spraying with 0.5% Ethepon resulted in 13.6% leaf fall. Spraying with 1.5% and 2% Ethepon resulted in 82.2% and 82.3 % leaf fall, respectively. In addition, using Ethepon to defoliate hemp had no detrimental effect the yield. Therefore, Ethepon concentration at 15 ml per 1 liter of water will be recommended for use in removing hemp leaves by spraying at 7 days before harvest to lower labor cost.

**Keywords :** defoliation technology, ethepon, hemp cultivation, saline solution

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