# Sunn Hemp as a Nitrogen Fertilizer for Squash. (C03-gallaher133649-Poster)

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## Abstract:

Summer squash (Cucurbita pepo L.) is an economically important vegetable crop in Florida. Over the past 38 years, squash N fertilizer recommendations have fluctuated. In order to refine squash N fertilization, this two-year study compared sunn hemp (Crotalaria juncea L.) to ammonium nitrate (AN) as N sources and tested five rates of N (0, 50, 100, 150, and 200 kg N/ha). In spring 2001-02, squash was planted into a split-plot design with main effects (N sources) in a RCB design. Factors were re-randomized in 2002 to compare two-year data in a split-split plot design. Nematode populations, yield, leaf tissue mineral concentrations, and soil nutrients were measured. Six harvests were taken each year. At 100 kg N/ha, total yield was 59% greater in 2001 (3159 g/m^2) than 2002 (1987 g/m^2). This rate is 68% less than the current extension recommended N rate (168 kg N/ha). Under AN source, N concentration was 27% higher in 2002 (52 g/kg) than in 2001 (41 g/kg). Over the two years the overall performance of sunn hemp was equivalent to that of AN in providing adequate crop nutrition and optimum squash yield.

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