Planting density effects in organic canola production

The growing demand for organic dairy and livestock products is driving increasing demand for organic grain and oilseed production. Winter canola production fits well in areas of the southeastern USA and can provide a profitable alternative to small-grain production for organic producers.

Previous research in organic canola production is limited, and the available literature on the effects of row spacing and seeding rate in canola production has focused primarily on conventional systems where synthetic herbicides were used. Understanding the effects of row spacing and seeding rate on canola population, weed competition, and canola yield in an organic context will provide foundational management information for organic canola producers.

In the November–December 2016 issue of Agronomy Journal, researchers report on the effects of row spacing and seeding rate on canola population, weed competition, and yield in organic canola production in North Carolina. Five seeding rates (3, 6, 9, 12, and 15 lb/ac) were evaluated at three row spacings (6.7, 13.4, and 26.8 inches). Between-row cultivation occurred in the widest row spacing. Cultivation is often a critical component of weed suppression in organic production.

These researchers found that canola yield was similar across all row spacings at the lower seeding rates in environments with common winter weed species. Canola yield increased with increasing seeding rate in the narrowest row spacing but declined with increasing seeding rate in the wider row spacings.

The plasticity of canola will provide organic producers flexibility in row spacing selection, and seeding rate selections should be made based on desired row spacing. Flexibility in row spacing selection will allow organic producers to add canola into their rotation with minimal investment in new planting equipment, which may help increase organic canola production in the southeastern USA.