

Current Approaches to Organic Potato Production

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The increased demand for organically produced potatoes suitable for the processing market, and availability of commercial soil amendments approved for use in organic production may change the intensity of nutrient use in organic potato production. In 2003, a series of trials were conducted by the OACC at five Maritime sites to examine seasonal moisture and nitrogen availability in organic potato production as affected by organic amendments. Two pelletized poultry manures, a fish meal and a commercial compost, were applied to three potato varieties to supply estimated plant available N at up to 200 kg N per hectare. Compost was applied at up to 45 t dry matter per hectare. Although planted late, high total (25-35 t/ha) and marketable (95%) yields of tablestock (Fabula) and processing varieties (Shepody, Kildare) were achieved under organic production protocols. Compared to unfertilized controls, pelletized manure at 150 to 300 kg total N ha⁻¹ increased yields 20 to 100%. For all sites and treatments, soil nitrate at harvest was below regional averages for residual soil nitrate following potatoes except when pelletized manure was applied at very high rates (600 kg total N ha⁻¹) or following pasture plowdown. The presentation will also review some of the wider challenges to organic potato production in the region, by highlighting additional research linked to the OACC .

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