Abstract:

A weed control experiment was conducted for two consecutive seasons (1994/95 and 1995/96) at the research farm of the Kenana Sugar Company to evaluate the efficacy of two new herbicides in controlling weeds in sugarcane and assessing some modifications of the present practices. Diethenamid at 1.8 and 2.0 kg/ha displayed good activity (83.25 to 88.75 % control) on grasses early in the season. However, late season control was poor and inconsistent. Imazethapyr performed poorly on both grasses and broad-leaved weeds. Tank mixtures of atrazine at 1.8 kg/ha and pendimethalin at 2.0 kg/ha or atrazine and ametryne at 2.0 kg/ha each, maintained satisfactory to excellent control of all weeds for 8-12 weeks after treatment. Increasing herbicide rate did not improve weed control significantly. Unrestricted weed growth decreased cane height, stalk population and yield by 33.31, 57.43 and 63.21%, respectively. Diethenamid and imazethapyr did not improve cane growth or yield significantly. Atrazine in tank mixtures with pendimethalin and ametryne increased cane growth and yield. Cane height, stalk population and yield were often comparable to those obtained from the weeded control.