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Abstract
The cutoff technique has not been adequately investigated despite being the most practiced among smallholder farmers. This study aimed at scenarios of improving water application efficiency, distribution uniformity, and productivity for the technique. Three cutoff treatments where water supply was stopped with the advance phases reaching 75%, 80%, and 90% of furrow length were investigated with eight irrigation events. Mean application efficiencies with significant difference ($P<0.05$) of 70%, 66.4%, and 63% were achieved for the 75%, 80%, and 90% length cutoff treatments respectively. Corresponding uniformities and water productivities of 90, 89.9%, 89.2% and 1.54, 1.38, 1.18 kg/m3, respectively, were obtained with no significant difference ($p>0.05$). The results demonstrated the 75% cutoff has the potential of saving water of up to 26% without compromising water productivity. It is recommended therefore that the 75% cutoff position of water supply be promoted among the smallholder farmers and that research studies should now intensify for less than 75% cutoff.