

ABSTRACT

The late blight resistance and yield characteristics of 32 potato genotypes were studied at KARI-Tigoni between 2006 and 2007 under natural late blight inoculum pressure. Foliar late blight resistance was assessed on the basis of area under disease progress curve (AUDPC) whereas the relative area under disease progress curve (RAUDPC) was used to classify the genotypes into five late blight resistance groupings (resistant, moderately resistant, intermediate, moderately susceptible and susceptible). Tuber yields for individual cultivars ranged from 5.87 to 60.70 t/ha. The correlation between foliar late blight and tuber blight was weak but that between foliar late blight and total tuber yield was negative and significant. On the basis of RAUDPC, it was possible to classify 26 of the 32 cultivars into distinct resistance classes. Cultivars Kenya Karibu, Tana Kimande, Kihoro, Kenya Sifa and Kenya Karibu (white flowers) were rated as resistant. The most susceptible cultivars were Kerrs' Pink, Ngure, Desiree, Romano and Pimpernel. Any of the resistant or susceptible varieties can be used as checks in evaluating germplasm for late blight tolerance.