

ABSTRACT

Rapid chemical screening for alkaloids, steroids and triterpenoid substances, saponins and leucoanthocyanins in 100 fern species of Trinidad indicated the presence of alkaloids in 12 species, steroid or triterpenoid substances in 16, saponins in 22 and leucoanthocyanins in 17.

Subsequent biological testing of the methanolic extracts of 44 fern species revealed the presence of antibacterial substances in 37 species. Thirty four species were active against Escherichia coli, 21 against Pseudomonas solanacearum, 33 against Erwinia carotovora and 20 against Xanthomonas campestris.

Antibacterial activities seemed to exist among the nonionic extractives and from the fern Ctenitis sloanei at least two substances were extracted which inhibited the growth of Xanthomonas campestris. One of these constituents was phenolic, the other was a glucoside.