Bacteria are tested against antibiotics because of the resistance these bacteria show against known anti-microbial agents. Similar tests are done on plant extracts and isolated plant compounds. In this study, crude extracts of Ximenia caffra sond. (Ol acaceae) which were previously determined to have strong antibacterial activity were tested for the rate of killing bacteria in given time (kill kinetics). They were tested against strains of Staphylococcus aureus, Escherichia coli, Pseudomonas aeruginosa and Candida albicans. Inoculated strains were tested against serial dilutions at time intervals of 0, 2, 4, 6, 8 and 24 h. Results obtained showed that X. caffra killed all S. aureus strains at 4mg/ml after 2h. Both 2mg/ml and 1mg/ml concentrations killed the same organism in 6 h. In comparison, the population of E. coli was reduced by a concentration of 8mg/ml from 2.03 ×10^6 cfu/ml to 2.0 × 10^3 cfu/ml in 24 h. C. albicans was killed by 8 mg/ml in 24 h. There was no effect on P. aeruginosa at all levels of the concentrations tested. It is concluded that the killing by X. caffra extracts is both time and concentration dependent and is cell wall related.