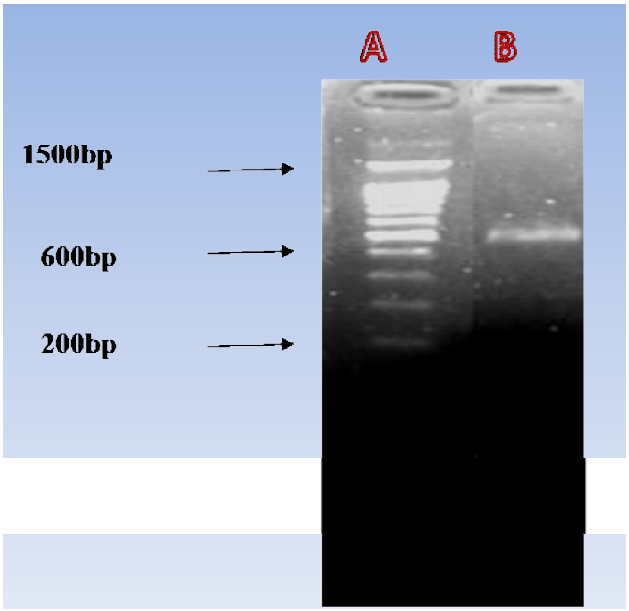
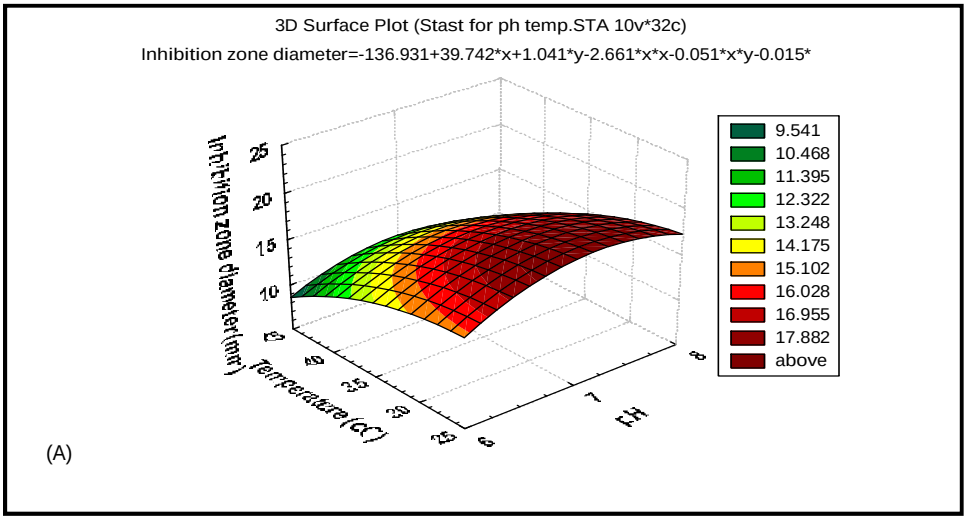
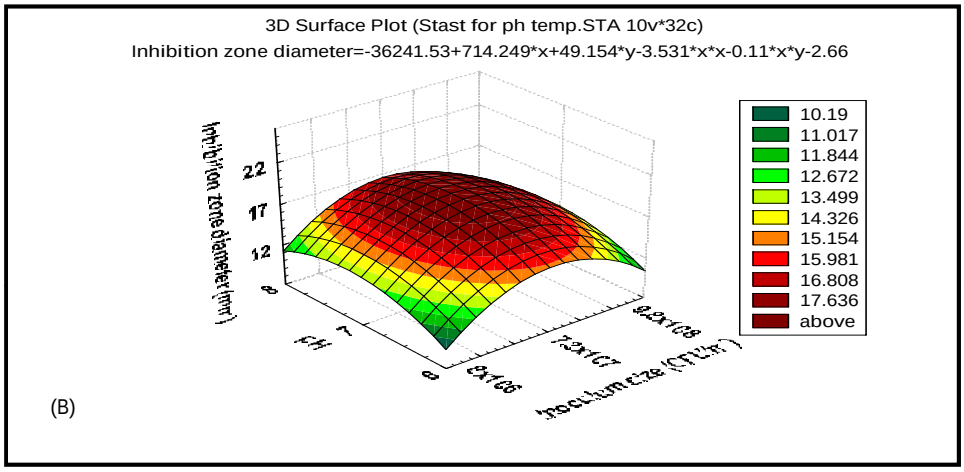


Figure 1: The PCR product of DNA isolated from (*P. fluorescens*) using 16 rRNA primer. Lane A refers to: DNA marker (100BP LADER); lane B: amplified PCR product





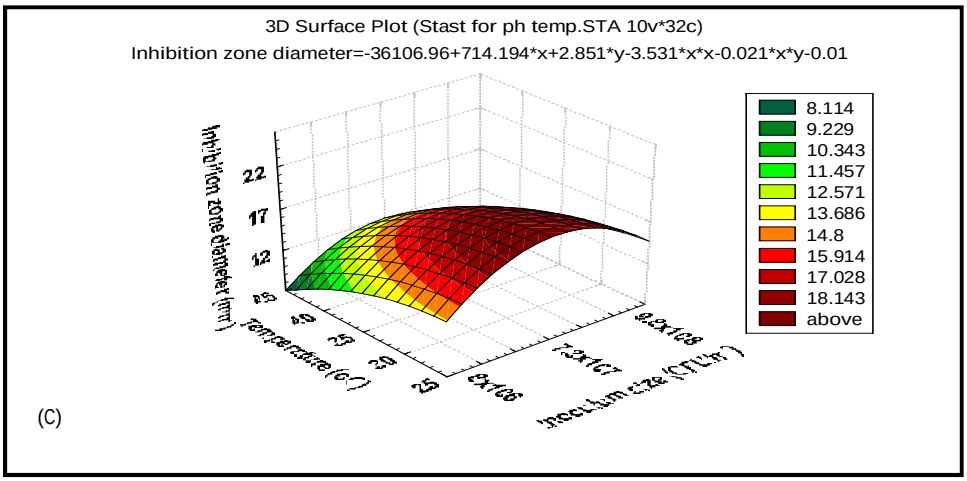


Figure 2: The effect of the interaction between different pH and temperature ((°C) (A), pH and inoculums size (B) and temperature (°C) and inoculums size (C) on the bioactivity of *P. fluorescens* against *K. pneumoniae* using response surface plot curves.

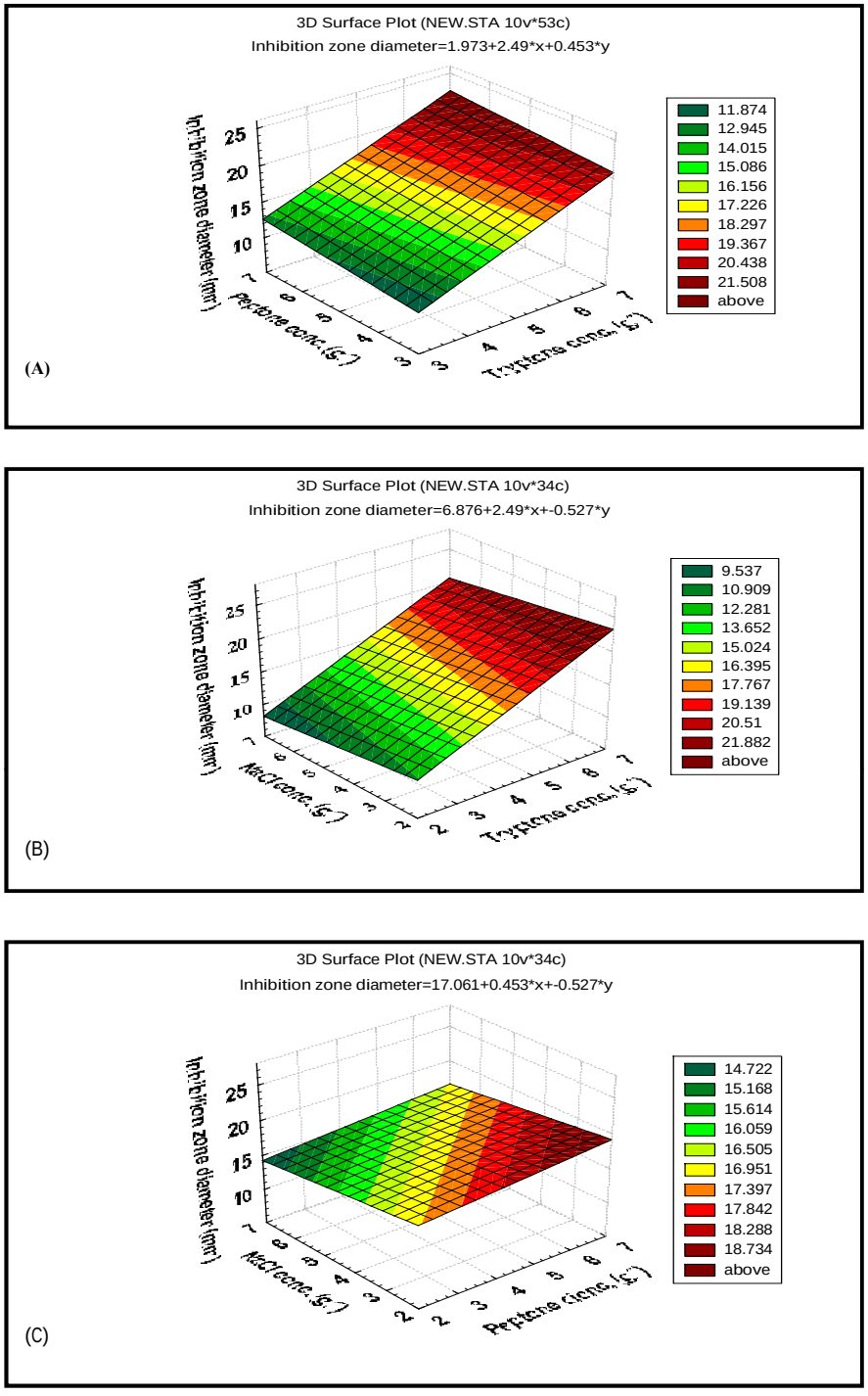


Figure 3: The effect of the combination between different concentrations of tryptone and peptone (A), tryptone and NaCl (B) and peptone and NaCl (C) on the bioactivity of *P. fluorescens* against *K. pneumoniae* using response surface plot curves.

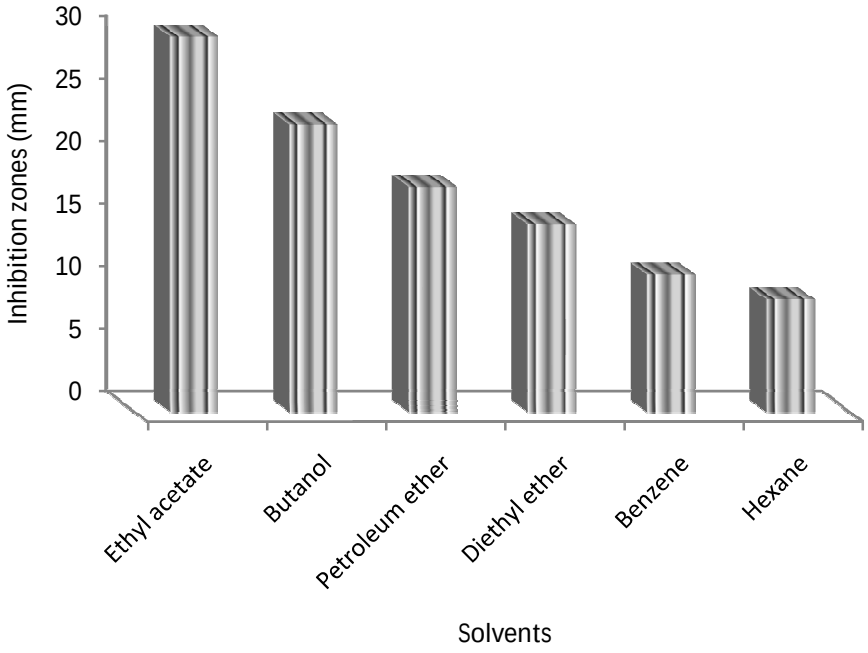


Figure 4: Extraction of the active agents against *K. Pneumoniae* using different polar and non-polar solvents

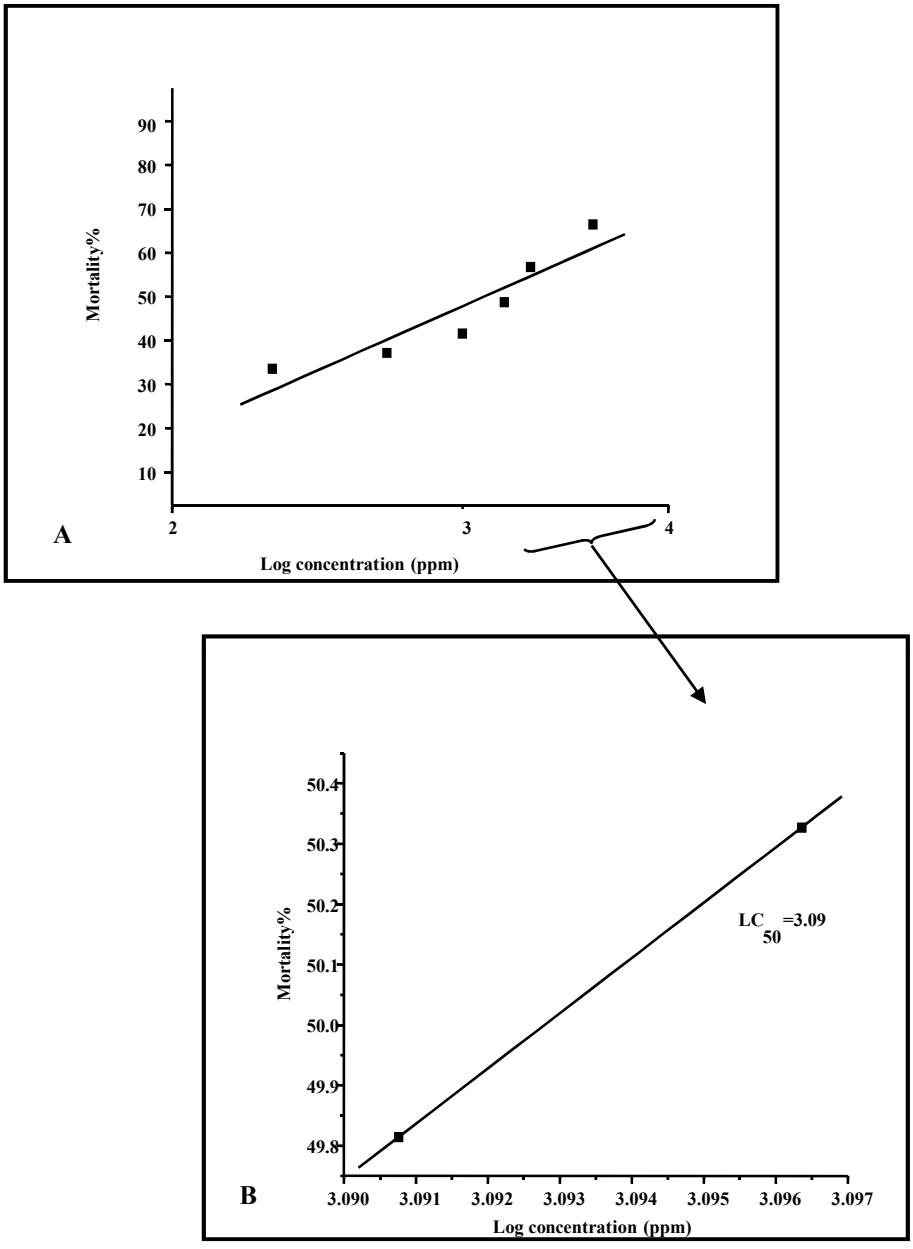


Figure 5: The bio-toxicity curve of the crude extract showing the best fit line (A) and the log concentration of the LC50 value (≈ 1050 µg crude/ml) (B).

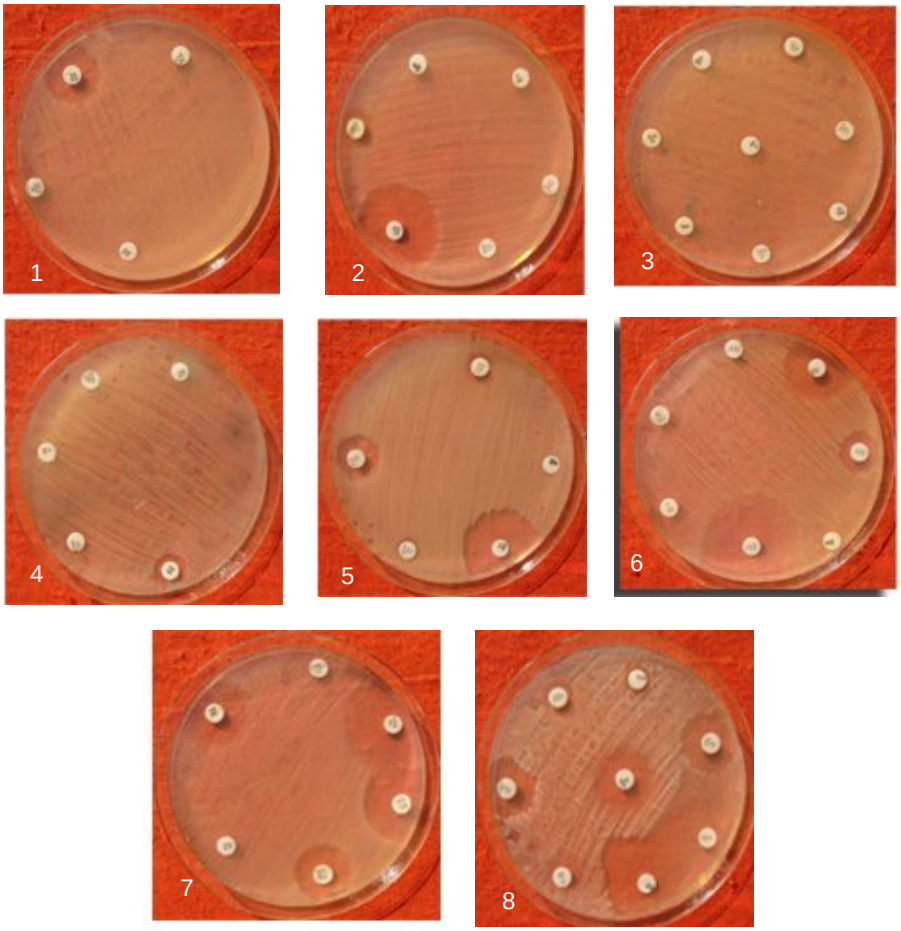


Figure 6: The photographs from 1 to 7 show the inhibition zones of some commercial antibiotics CFP_{75}, , DO_{30}, ATM_{30}, CAR_{100}, AK, FEP, IMI, respectively, compared to the inhibition zone obtained by *P. fluorescens* crude extract (photograph -8) using $1.2x10^3$CFU/ml of *K. pneumoniae* as a target pathogen.