LIST OF FIGURES

Figure 1: The major components of a typical soil
Figure 2: The soil profile showing the three major horizon divisions
Figure 3: IMO cultivation preparation steps
Figure 4: IMO cultivation preparation steps II
Figure 5: Petri-dish showing colonies present in agricultural soil extract
distributed on BHI blood medium after an overnight incubation
Figure 6: Various types of colonial morphology of unknown soil bacterial isolates37
Figure 7: Petri-dish showing rough colonies of unknown representative38
soil bacterium growth on BHI blood agar medium
figure 8: Representative of white-grayish rough colonies with strong
haemolytic activity on BHI blood agar medium
figure 9: Representative mucoid, white-creamy, rounded colonies on
BHI blood agar medium after 24 hours incubation
Figure 10: Pie chart illustrating the soil bacterial colony types
Figure 11: Representative of Gram positive cocci of unknown soil bacteria41
Figure 12: Representative of Gram positive streptococci of unknown soil bacteria 42
Figure 13: Gram negative bacilli shape of soil bacteria

Figure 14: Representative of Gram positive bacilli of unknown soil bacteria42
Figure 15: Pie chart showing the distribution figure of cell shaped44
Figure 16: Distribution of haemolytic colonies on BHI blood agar medium47
Figure 17: Screening of haemolytic activity of soil bacterial isolates
on BHI blood agar medium
Figure 18: Single colony streaking on BHI blood agar plate showing
a strong haemolytic activity of representative colony of unknown bacteria isolated
Figure 19: Cell-free supernatant containing biosurfactant activity
(bacterial filtrate) of unknown bacteria isolated from agricultural soil
Figure 20: Pie chart showing the occurrence rate of haemolytic and51
nonhaemolytic of unknown bacterial isolates tested on BHI agar medium
Figure 21: Pie chart showing the drop collapsing activity against unknown51
soil bacterial isolates
Figure 22: Bar chart showing the biosurfactant activity tested
against unknown soil bacterial isolates
Figure 23 : Antibiotic susceptibility plates showing bacterial
growth among the tested antibiotics

Figure 24: 0.7% Agarose gel electrophoresis of plasmid DNA	59
analysis showing chromosomal DNA of representative soil bacterial isolates	
Figure 25: 0.7% Agarose gel electrophoresis of plasmid DNA analysis	.60
showing chromosomal DNA of representative soil bacterial isolates	
alongside with the DNA molecular weight marker:	