

## SUPPLEMENTARY RESULTS

Tables 1a and b provide a complete study of the isolates' Gram stain and biochemical tests such as Catalase, Citrease, Indole, Oxidase, Hydrogen sulphide, coagulase, Motility, Glucose Lactose and citrate test. The probable organisms were *Micrococcus spp*, *Staphylococcus spp*, *Myroides spp*, *Proteus spp* and *Staphylococcus spp*.

**Table 1a: Cultural, morphological and biochemical characteristics of isolates**

| Colony color | Colony shape | Morphology | Gram reaction | Catalase | Citrease | Urease | Indole | Oxidase | Hydrogen sulphide | Possible Organism         |
|--------------|--------------|------------|---------------|----------|----------|--------|--------|---------|-------------------|---------------------------|
| Yellow       | Circular     | Cocci      | +             | +        | +        | -      | -      | -       | -                 | <i>Micrococcus spp</i>    |
| Light Cream  | Circular     | Cocci      | +             | +        | -        | -      | -      | -       | -                 | <i>Staphylococcus spp</i> |
| Light yellow | Round        | Rod        | -             | +        | +        | +      | -      | -       | -                 | <i>Myroides spp</i>       |
| Creamy       | Round        | Rod        | -             | +        | +        | +      | -      | -       | -                 | <i>Proteus spp</i>        |
| Orange       | Circular     | Cocci      | +             | +        | -        | -      | -      | -       | -                 | <i>Staphylococcus spp</i> |

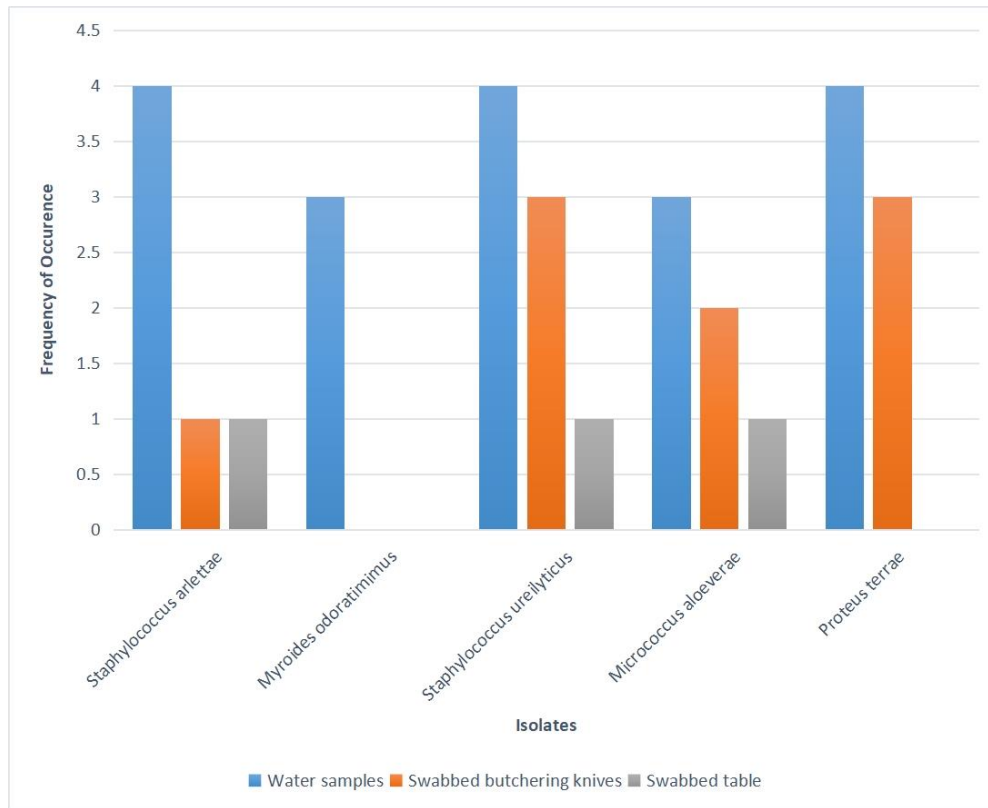
**KEY:** + = Positive    - = Negative

**Table 1b: Cultural, morphological and biochemical characteristics of isolates (Cont.)**

| Coagulase | Motility | Glucose | Lactose | Citrate | Possible Organism         |
|-----------|----------|---------|---------|---------|---------------------------|
| -         | -        | Ng/A    | Ng/A    | +       | <i>Micrococcus spp</i>    |
| -         | +        | Ng/A    | Ng/A    | +       | <i>Staphylococcus spp</i> |
| +         | +        | G/A     | N/A     | -       | <i>Myroides spp.</i>      |
| +         | -        | G/A     | N/A     | -       | <i>Protease spp.</i>      |
| -         | +        | Ng/A    | Ng/A    | +       | <i>Staphylococcus spp</i> |

**Key: AK= Alkaline; A= Acid; + = Positive; - = Negative; Ng= no gas production; Na= no acid production; A= Acid production; G= Gas production.**

The dressing water samples have a higher bacterial load than the swabbed table and butchering knives on Nutrient agar, MacConkey and Thiosulphate citrate bile salt agar, as shown in Figure 1, which depicts the frequency distribution of three distinct abattoir samples collected at different locations.



**Figure 1:** Distribution of frequency of different bacteria isolated from the three different samples

Table 2 provides a detailed analysis of the phytochemical profile of *Allium sativum* extracts obtained using both distilled water and ethanolic extraction. The results demonstrate that all secondary metabolites tested were present in both distilled water and ethanolic extracts, with the exception of saponins, which were lacking in ethanolic extracts, indicating a high degree of phytochemical similarity.

**Table 2:** Phytochemical screening of *Allium sativum* plant extract

| Phytochemicals | Distilled Water Extract | Ethanolic Extract |
|----------------|-------------------------|-------------------|
| Alkaloids      | +                       | +                 |
| Glycosides     | +                       | +                 |
| Flavonoids     | +                       | +                 |
| Saponins       | +                       | -                 |
| Tannin         | +                       | +                 |
| Steroids       | +                       | +                 |

**KEY:** + indicates the presence of the phytochemical compound

– indicates the absence of the phytochemical compound

Table 3 offers a comprehensive analysis of the phytochemical composition of *Syzygium aromaticum* extracts obtained through various extraction methods. Specifically, the table reveals that tannins and steroids are present in both distilled water and ethanolic extractions, while alkaloids, glycosides and flavonoids are not detected in the distilled water extraction. In contrast, all four of these phytochemical classes are present in the ethanolic extraction, with the exception of saponins and glycosides, which are absent.

**Table 3:** Phytochemical screening *Syzygium aromaticum* plant extract

| Phytochemicals | Distilled Water Extract | Ethanolic Extract |
|----------------|-------------------------|-------------------|
| Alkaloids      | -                       | +                 |
| Glycosides     | -                       | -                 |
| Flavonoids     | -                       | +                 |
| Saponins       | +                       | -                 |
| Tannin         | +                       | +                 |
| Steroids       | +                       | +                 |

**KEY:** + indicates the presence of the phytochemical compound

– indicates the absence of the phytochemical compound

Table 4 shows the ethanolic extracts of *Zingiber officinale* contained a diverse array of phytochemicals, including phenolics, glycosides, saponins, tannins and flavonoids. However, surprisingly, only glycosides was detected in the distilled water extracts. In contrast, the aqueous extract of ginger revealed the presence of other phytochemicals except glycoside, which was absent.

**Table 4:** Phytochemical screening *Zingiber officinale* plant extract

| Phytochemicals | Distilled Water Extract | Ethanolic Extract |
|----------------|-------------------------|-------------------|
| Alkaloids      | -                       | +                 |
| Glycosides     | +                       | -                 |
| Flavonoids     | -                       | +                 |
| Saponins       | -                       | +                 |
| Tannin         | -                       | +                 |
| Steroids       | -                       | +                 |

**KEY:** + indicates the presence of the phytochemical compound

– indicates the absence of the phytochemical compound

We are grateful to the reviewer for this valuable remark. The authors recognize that in the current study a statistical analysis was not conducted. This was due mainly to the aim of the study being a preliminary exploratory study to identify bacteria contaminants, their antibiotic resistance profile and potential antibacterial activity of selected plant extracts. Thus, descriptive presentation with numerical values and percentages of the observed results was used. The authors acknowledge that the statistical assessments (variance and significance testing) would have further enhanced the interpretation and robustness of results. In the revised manuscript this limitation has been recognized and future studies will use adequate statistical analysis in larger sample sizes and repeated experimental designs.

## APPENDIX

### NUCLEOTIDE SEQUENCES

*Micrococcus aloeverae* strain AK01 (PP493942)

GCTTACACATGCAGTCGAACGATGAAGCCCAGCTTGCTGGGTGGATTAGTGGCGAAC  
GGGTGAGTAACACGTGAGTAACCTGCCCTTAACCTCTGGGATAAGCCTGGGAAACTGG  
GTCTAATACCGGATAGGAGCGCCGACCGCATGGTGGGTGTTGGAAAGATTTATCGGTT  
TTGGATGGACTCGCGGCCTATCAGCTTGTTGGTGAGGTAATGGCTCACCAAGGCGAC  
GACGGGTAGCCGGCCTGAGAGGGTGACCGGCCACACTGGGACTGAGACACGGCCCA  
GACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGGCGCAAGCCTGATGCA  
GCGACGCCGCGTGAGGGATGACGGCCTTCGGGTTGTAAACCTCTTTCAGTAGGGAAG  
AAGCGAAAGTGACGGTACCTGCAGAAGAAGCACCGGCTAACTACGTGCCAGCAGCC  
GCGGTAATACGTAGGGTGCGAGCGTTATCCGGAATTATTGGGCGTAAAGAGCTCGTAG  
GCGGTTTGTGCGCTCTGTCGTGAAAGTCCGGGGCTTAACCCCGGATCTGCGGTGGGT  
ACGGGCAGACTAGAGTGCAGTAGGGGAGACTGGAATTCCTGGTGTAGCGGTGGAATGC  
GCAGATATCAGGAGGAACACCGATGGCGAAAGGCAGGTCTCTGGGCTGTAAGTAC  
GCTGAGGAGCGAAAGCATGGGGAGCGAACAGGATTAGATACCCTGGTAGTCCATGCC  
GTAAACGTTGGGCACTAGGTGTGGGGGACCATTACGGTTTCCGCGCCGCAGCTAAC  
GCATTAAGTGCCCCGCCTGGGGGAGTACGGCCGCAAGGCTAAAACCTCAAGATTGACG  
GGGCCCCGCAAGCGGCGGAGCATGCGGATATCGATGCAACGCGAGACTACAGGCTG  
ACATGTTCTCGATCGCGTA

*Proteus terrae* strain AK02 (PP493943)

ACACATGCAGTCGAGCGGTAACAGGAGAAAGCTTGCTTTCTTGCTGACGAGCGGCG  
GACGGGTGAGTAATGTATGGGGATCTGCCCCGATAGAGGGGGATAACTACTGGAAACG  
GTGGCTAATACCGCATGACGTCTACGGACCAAAGCAGGGGGCTCTTCGGACCTTGCGC  
TATCGGATGAACCCATATGGGATTAGCTAGTAGGTGAGGTAATGGCTCACCTAGGCGA  
CGATCTCTAGCTGGTCTGAGAGGATGATCAGCCACACTGGGACTGAGACACGGCCCA  
GACTCCTACGGGAGGCAGCAGTGGGGAATATTGCACAATGGGCGCAAGCCTGATGCA  
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GGGCGTAAAGCGCACGCAGGCGGTCAATTAAGTCAGATGTGAAAGCCCCGAGCTTAA  
CTTGGAATTGCATCTGAAACTGGTTGGCTAGAGTCTTGTAGAGGGGGGTAGAATTCC  
ACGTGTAGCGGTGAAATGCGTAGAGATGTGGAGGAATACCGGTGGCGAAGGCGGCC  
CCCTGGACAAAGACTGACGCTCAGGTGCGAAAGCGTGGGGAGCAAACAGGATTAGA  
TACCCTGGTAGTCCACGCTGTAAACGATGTCGATTTAGAGGTTGTGGTCTTGAACCGT  
GGCTTCTGGAGCTAACGCGTTAAATCGACCGCCTGGGGAGTACGGCCGCAAGGTAA  
AACTCAAATGAATTGACGGGGGGCCCGCACAAGCGGTGGAGCATGTGGTTTAATTCTG  
ATGCAACGCGAAGAACCTTACCTACTCTTGACATCCAGAGAATCCTTTAGAGATAGAG  
GAGTGCCTTCGGAACCTCTGAGACAGGTGCTGCATGGCTGTCGTCAGCTCGTGTTGTG

AAATGTTGGGGTTTAAGTCCCCGCAACGAGCGCATCCATTATCTTTGGTTGCCAGCGC  
GATAATGGGCGGG

*Staphylococcus arlettae* strain AK03 (PP506426)

GCCAGTCGAGCGAACAGATAAGGAGCTTGCTCCTTTGAGTTAGCGGCGGACGGGTG  
AGTAACACGTGGGTAACTACCTATAAGACTGGAATAACTCCGGGAAACCGGGGCTA  
ATGCCGGATAACATTTAGAACCGCATGGTTCTAAAGTGAAAGATGGTTTTGCTATCAC  
TTATAGATGGACCCGCGCCGTATTAGCTAGTTGGTAAGGTAATGGCTTACCAAGGCAA  
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GAGCAACGCCGCGTGAGTGATGAAGGGTTTCGGCTCGTAAAACTCTGTTATTAGGGA  
AGAACAACGTGTAAGTAAGTGTGCACGTCTTGACGGTACCTAATCAGAAAGCCACG  
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CCTTAGTGCTGCAGCTAACGCATTAAGCACTCCGCCTGGGGAGTACGACCGCAAGGT  
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CGAAGCAACGCGAAGAACCTTACCAAATCTTGACATCCTTTGACCACTCTAGAGATA  
GAGCTTTCCCTTTTCGGGGACCAAAGTGACAGGTGGTGCATGGTTGTCCGTCAGCTC  
GTGTCGTGAGATGGTTGGGTAAAGTTCGCGACGCGCAACCCATAAACTTAGTTTGCC  
AGCAATTTAGTTG

*Myroides odoratimimus* strain AK04 (PP506427)

ATGCAAGTCGAGGGGTAGAAAGAGCTTGCTTTTTTTGAGACCGGCGCACGGGTGAGTA  
ACGCGTATGCAACCTACCTTATACAGGGGCATAGCCCGAAGAAATTCGGATTAATGCT  
CCATGGTTTATCGATATGGCATCGTATTGATAATAAAGATTTATCGGTATAAGATGGGCA  
TGCGTATCATTATGTAGTTGGTGTGGTAACGGCATACCAAGGCAACGATGATTAGGGG  
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CGCGGTAATACGGAGGATCCGAGCGTTATCCGGAATTATTGGGTTTAAAGGGTTCGTA  
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ACTGCAGAGCTTGACATATATGGAAGTAAGTGAATATGTAGTGTAGCGGTGAAATGC  
TTAGATATTACATGGAATACCAATTGCGAAGGCAGGTACTACGTATTTATTGACGCTG  
ATGAACGCCAGCGTGGGGAGCGAACAGGATTAGATACCCTGGTAGTCCACGCCGTAA  
ACGATGGATACTAGCTGTTTCGGTTTTTCGGACTGAGTGGCTAAGCGAAAGTGATAAGTA

TCCCACCTGGGGAGTACGTTTCGCAAGAATGAAACTCAAAGGAATTGACGGGGGGCCC  
GCACAAGCGGTGGAGCATGTGGTTTAATTTCGATGATACGCGAGGAACCTTACCAGGG  
CTTAAATGTAGATTGACAGATTTGGAAACAGATTTTCTTCGGACAATTTACAAGGTG  
CTGCATAGTTGTCGTCAGCTCGTGCCGTGAGGTGTCAGGTTAAGTCCTATAACGAGCG  
CAACCCCTATAGTTAGTTACCAGCGCGTAGAGGCG

*Staphylococcus ureilyticus* strain AK05 (PP506428)

GCCTAATACATGCAAGTCGATCGAACAGATAAGGAGCTTGCTCCTTTGACGTTAGCGG  
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ACCGGGGCTAATGCCGGATAACATTTAGAACCGCATGGTTCTAAAGTGAAAGATGGTT  
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AAAGCCACGGCTAACTACGTGCCAGCAGCCGCGGTAATACGTAGGTGGCAAGCGTTA  
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CCACGGCTCAACCGTTTAGGGTCATTGGAAACTGGGAAACTTGAGTGCAGAAGAGG  
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ACAGGATTAGATACGGTGGTAGTCCACGCCGTAAACGATGAGTGCTAAGTGTTAGGG  
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TCTAGAGATAGAGCCTTCCCCTTCGGGGGACAAAGTGACAGGTGGTGCATGGTTGTC  
GTCAGCTCGTGTCGTCGAATGTTGGGTAAAGTCCCGCAACGAGCGCAACCCTTAAGC  
TTAGTTGCCAGCATTAAAGTTGGGCACTCTAAGTTGACTGCCGGTGA