Chapter Six: Conclusion

Commercially available bee products were observed to have potent antioxidant and antibacterial activities in the present study. This study has found significant differences between the *in vitro* antioxidant and antimicrobial activities of bee products using the FRAP and disc diffusion assays respectively. The manuka honey with the highest unique manuka factor (30+) proved to have the highest antioxidant and antibacterial potency whilst manuka honeys with lower UMFs produced variable results. Furthermore, the price of manuka honey, especially the manuka 30+ is eighteen times higher than standard honey. Although the manuka honey did exhibit statistically significantly higher antioxidant and antibacterial activity compared with the standard honey the results were not 18 fold greater. Therefore the cost of the manuka honey is not justified in comparison with antioxidant and antimicrobial activity observed in the present study. Additionally, despite producing the highest FRAP value; propolis did not significantly inhibit growth of any of the four bacterial strains investigated and, therefore, may not be of benefit to consumers wishing to buy it to prevent/treat bacterial infections.