

Table 1.1: Percentage inhibition of ascorbic acid and GBWL

| | | | Absorbance at 517 nm | |
|-----------------------|-------------|--------------|----------------------|--------------|
| Ascorbic acid | | | GBWL | |
| Concentration (mg/ml) | Mean/SD | % inhibition | Mean/SD | % inhibition |
| 0.1 | 0.130±0.006 | 68.67 | 0.165±0.000 | 60.24 |
| 0.2 | 0.123±0.014 | 70.36 | 0.180±0.002 | 56.62 |
| 0.3 | 0.131±0.002 | 68.43 | 0.170±0.001 | 59.04 |
| 0.4 | 0.126±0.004 | 69.64 | 0.187±0.002 | 54.94 |
| 0.5 | 0.123±0.006 | 70.36 | 0.167±0.002 | 59.76 |

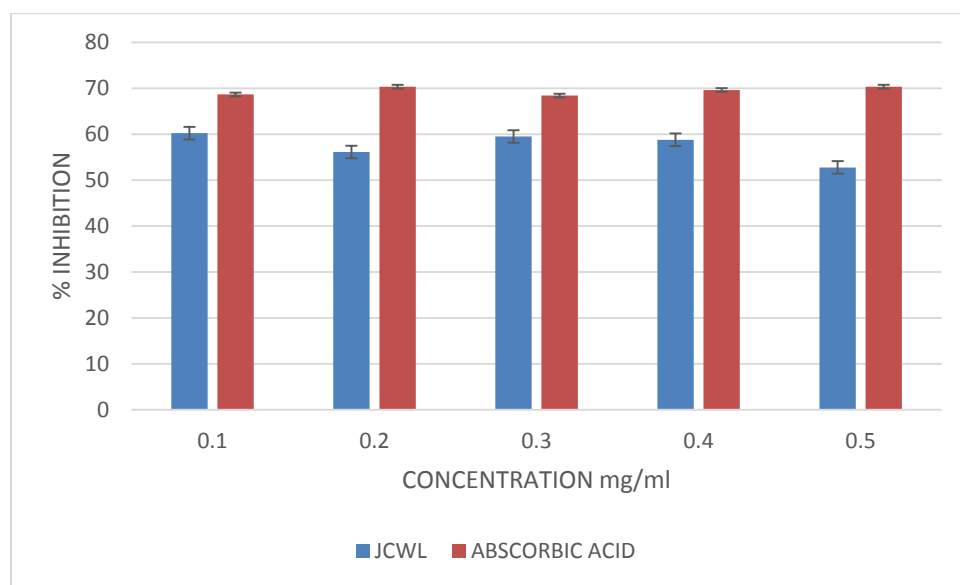


Fig. 1.1: The bar chart of scavenging activity of GBWL and ascorbic acid

The reduction in absorbance of DPPH at 517nm caused by the samples was measured in triplicate after 10 min. The tested samples showed very good activity but lower than the standard at the same concentration (Table 1.1). There was decrease in absorption at 517 nm indicating that the samples have hydrogen donating ability or can scavenge free radical. This was also shown in the calculated percentage inhibition. Figure 1.1 above also corroborated the *Gossypium barbadense* antioxidant activity. Generally the percentage inhibition fluctuated with increase in

concentration between 54.94 – 60.24% but still lower compared to the standard at the difference concentration.

CONCLUSION

In conclusion, it was observed that there were variation in some of the compositional pattern from previous studies on the essential oil from the plants from other part and this may be due to the ecological, age of the plant, period of collection, handling procedure and climatic condition. Also the oil sample of *G. barbadense* exhibit antioxidants properties via the DPPH method but not as effective as the standard used, therefore *G. barbadense* can be used to repair the damage tissue.

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