APPENDIX XIV

ESTIMATION OF PEROXIDASE ACTIVITY
(Addy and Goodman, 1972)

Principle
The peroxidase can be assayed by adding tissue extract to pyrogallol which in the presence of \( \text{H}_2\text{O}_2 \) is oxidised to a coloured derivative. The amount of purpurogallin formed during the reaction will measure the activity at 420nm.

Reagents
1. 0.05 M pyrogallol in 0.1 M phosphate buffer pH 6.0
2. \( \text{H}_2\text{O}_2 \) solution - 1 per cent solution.

Procedure
3.0 ml phosphate buffered pyrogallol and 0.1 ml of 20 per cent tissue homogenate into a cuvette and adjust the absorbance to zero at 420 nm. 0.5 ml of hydrogen peroxide was added and the cuvette was inverted immediately to mix the content and replaced in the colorimeter. Changes in absorbance at 20 seconds interval for a period of three minutes were measured. To plot the peroxidase activity the average change in absorbance per 20 seconds between 40 and 160 seconds was used. Suitable controls were maintained.

The results are expressed as mean of peroxidase enzyme unit/mg protein.