Figures
**Figure 1A** Cerebellum of brain of control male rats showing normal structure of purkinji cells, molecular and granular layers (H & E x 1067).

**Figure 1B** Cerebellum of brain of treated male rats (20+16+8mg/kg/b.wt./d) showing degenerative changes in purkinji cells and loss of granules in granular layer (H & E x1067).
Figure 2A Liver of control female rats showing normal hepatocytes around the central vein (H & E x1067).

Figure 2B Liver of treated female rats (20 mg/kg/d) showing mild focal necrosis of hepatocytes (H & E x 1067)
Figure 3A Kidney of control male rats showing normal tubule and glomerulus structures (H & E x 1067).

Figure 3B Kidney of treated male rats (20 mg/kg/d) rats showing degeneration of tubular and glomerulus structures (H & E x 1067).
Figure 4.1 Effect of dicofol, malathion, cypermethrin and their mixture in liver on LPO and antioxidant enzymes of male rats orally exposed for 90 days (*p <0.05)

Figure 4.2 Effect of dicofol, malathion, cypermethrin and their mixture in brain on LPO and antioxidant enzymes of male rats orally exposed for 90 days (* <0.05)
Figure 4.3 Effect of dicofol, malathion, cypermethrin and their mixture in kidney on LPO and antioxidant enzymes of male rats orally exposed for 90 days (*<0.05)
Figure 4.4 Induction of chromosomal aberration by dicofol, malathion, cypermethrin and their mixture in BM. Representative pictures(100×) showing chromosomal aberration induced by dicofol, malathion, cypermethrin in BM of male rats orally exposed for 90 days. (a) No aberration; (b) Ring (c) Break and chromatid exchange

Figure 4.5 Effects of dicofol, malathion, cypermethrin and their mixture exposure on chromosomal aberration in bone marrow
Figure 4.6 Induction of micronuclei by dicofol, malathion, cypermethrin and their mixture in BM. Representative pictures (100×) showing micronuclei in (a) untreated (b) Positive control (Banjo pyrine), (c) dicofol, (d) malathion, (e) cypermethrin and (f) their mixture of male rats orally exposed for 90 days (c) Flow cytometry analysis of micronuclei induced at different doses (20, 16, 8 and 20+16+8 mg/kg/b.wt). Gate R1 showing the population of micronuclei, R2 is showing total nuclei.
Figure 4.7 Induction of micronuclei by dicofol, malathion, cypermethrin in BM. Representative pictures (100×) showing micronuclei in (a) untreated (b) dicofol, malathion, cypermethrin and their mixture exposed cell (c) Flow cytometry analysis of micronuclei induced at different doses (20, 16, 8 and 20+16+8 mg/kg/b.wt). Gate R1 showing the population of micronuclei R2 is showing total nuclei.

Figure 5 Number of samples of each commodity containing pesticide residues out of 250 total analyzed samples
Figure 5.1 Tri-dimensional view of the docking of pesticide with stromelysin-1, MMP8. (5.1) 3D structure of the protein showing binding site cavity. (5.2) Cavity on the surface of the protein for binding of pesticide. (5.3) Pesticide docked in the binding site. (5.4) Interactions between amino acids in the protein and pesticide.