

CONCLUSION:

The above observations from the tables in the result section and their statistical interpretation clearly reveals that *Desmostachya bipinnata* is highly toxic even more than *Parthenium hysterophorus* and *Alternanthera sessilis* inducing chromosomal abnormalities (high -Chromosomal Abnormality Index) in both *Allium cepa* and *Vigna radiata* root tip cells.

Allelopathy is thus a dose and response phenomenon depending on the concentration of allelochemicals i.e. higher the concentration of extracts or leachates, greater is the Chromosomal Abnormality Index (C.A.I).

Thus the relative allelopathic vigour can be established based on descending order of allelopathic potential.

We can conclude that:

Desmostachya bipinnata > *Parthenium hysterophorus* > *Alternanthera sessilis* :-

in terms of allelopathic potential.

Thus Chromosomal Abnormality Index (C.A.I). is directly proportional to cytotoxicity and hence degree or magnitude of allelopathy.