RECOMMENDATIONS

1. Monoculture plantation should not be encouraged in arboreal land. It should be mixed with other trees of the area under plantation.

2. This tree should be excluded from social forestry programmes because, neither its monoculture plantation forms any forests nor does it fulfill any need of the society. Forest - technically is a self sustaining climate stage of succession, where different flora and fauna coexist and maintaining stable ecosystem.

   Monoculture conditions, on the other hand, far from the natural forests are artificial and man made which imbalanced the ecosystem fabric of given area. On the other hand, the yield from the tree is exclusively for commercial purpose and nothing to do with the need by the society. Instead of improving and stabilising the environment, it (which the forests are known for) deteriorates it.

3. The tree should not be recommended for the agroforestry programmes, obviously because of its allelopathic potential, especially in the area, where soil is alluvial, water is scarce or the water draining capacity of soil is low.

4. The already grown plantation should be exploited for extraction of volatile or non-volatile allelochemics. Cineole and citronellal is being used as herbicides.

5. Near the Eucalyptus plantations, trials for cultivation of forage crops should be made. The crops donot fair that bad with Eucalyptus monoculture plantation. On the other hand, oil yielding seed crops or pulses should not be tried because of the high susceptibility of such crops against eucalypts allelochemics.

6. Planting of Eucalyptus as a shelterbelt also not recommend. However, belts from indigenous trees (non-allelopathic) may prove fruitfull.

7. Unfounded and disproportionate propoganda by promoter of the tree for their own commercial or professional gain should be discouraged.

8. Subsidies for mix culture plantation of indigenous trees with or without Eucalyptus as one of the component, instead of monoculture plantation of Eucalyptus alone should be given.

9. Selection of the tree and the programme should not be based on economics alone but it should be more importantly on the environmental and ecosystem sustainability.
10. Researches should be encouraged for exploiting allelopathic phenomenon(s) towards weed control and management.

11. The seeds with the values of ratio of seed coat thickness to seed volume (SCT/SVol) more than the threshold value 0.719 are expected to fare well as regard their germination and the initial growth. These are, therefore considered not prone to the allelopathic effect.
Future Prospects

_Eucalyptus_, in India, apart from having been grown as monoculture plantation on forest land or agricultural land, have also, more recently, been grown as field bund plantation. The plantation of this exotic tree is highly criticised because of antiphytosocial property linked with it. The allelochemics of _Eucalyptus_ are polluting the soil and thereby, disturbing the healthy natural ecosystem. Apart from continuing the efforts to find out the suitable agricultural crops to be used along with _Eucalyptus_ tree especially in agroforestry system, further work related to exploit its allelochemics for the control and management of weeds is required to be undertaken.

1. Efforts should be made to commercialise the easily biodegradable but effective herbicides and pesticides. Weed management through the use of allelochemics as natural herbicides constitute one of the very significant aspects of biotechnology. Allelochemics from _Eucalyptus_ could be extracted in bulk and used against weeds and pests, which now ravage our crops. The use of these natural herbicides is advantageous on account of their relatively less residual effects compared to synthetic herbicides.

2. Experiments should be conducted to study the rate of degradation of effective allelochemics under different climatic and edaphic conditions.

3. Factors should be determined which could lead to the faster biodegradation of the allelochemics in the soil, so that the allelochemics have either more or subtle effects on the other plants.

4. To promote cultivation of possible agronomic crops under agroforestry system with _Eucalyptus_, more crops depending on the agro-climatic and edaphic conditions should be screened and tested for their performance.

5. Mathematical model proposed, should be tested further to predict the performance of crops under varied conditions.

6. Autotoxicity of _Eucalyptus_, as is found in some other allelopathic genera, should be looked into.

7. Mode of translocation of allelochemicals, within the eucalypt and their release in the nature needs to be studied.

8. Proper identification of other allelochemics and their mode of action is required to be studied.
9. Experiments should be performed to device the means to nullify the allelopathic impact, under in vivo conditions.

10. Mechanism of action of allelochemicals from *Eucalyptus* as for other such plants, at molecular level need to be studied.

11. Further research in case of shelterbelts in terms of its economics and possible impacts on the environment is required to thoroughly worked out.

12. Efforts to modify the allelochemicals, chemically or physically, in order to improve or change their efficacy against other plants should also be made.