Salient features of research findings
SALIENT FEATURES OF THE RESEARCH FINDINGS

1. The screening of arbuscular mycorrhizal fungi associations in floricultural plants have been undertaken in the present work is new to this geographical area.

2. VAM spores have been screened in 30 different localities of Belgaum region.

3. Altogether eighty two most important spores were isolated and identified.

4. All the six VAM genera viz. Acaulospora, Enterophospora, Gigaspora, Glomus, Sclerocystis and Scutellospora were recovered from selected localities of Belgaum.

5. pH did not influence the spore population but organic carbon showed correlation with spore population.

6. The genera Glomus was considered to be the most dominant among the isolates in most of the localities.

7. Genera Entrophospora are the least species among isolated species.

8. More number of Sclerocystis (14/50gsoil) recorded in Ashok nagar than the other VAM spore genera.
9. Higher number of *Scutellospora* (77/50g soil) recorded in Bagya nagar than the other VAM spore genera.

10. Histochemical studies, polyphosphates, peroxidase enzymes have been detected in arbuscules and vesicles in roots colonized by *Glomus fasciculatum*.

11. Arbuscules play an important role in nutrient uptake and vesicles act as storage sinks.

12. Arbuscles were prominently seen in the outer root cortex in the macerated root section of *Solidago virgaurea*. Senescent arbuscles are very common in the macerated root section of *Bellis perennis*.

13. *Solidago virgaurea* plant showed appreciable increase in plant height, stem diameter, leaf area and dry weight of shoot and root followed by *Callistephus chinesis*, *Chrysanthemum morifollum* and *Bellis perennis*.

14. VAM inoculated floricultural plants exhibited significant increase in plant height, biomass production, and percent of root colonization, spore number and phosphorus uptake when compared to control.

15. It was observed that 50% of recommended superphosphate with *Glomus fasciculatum* would be most suitable for *Chrysanthemum morifollum* and *Solidago virgaurea* to get significant biomass production.
16. It was observed that 75% of recommended superphosphate with *Glomus fasciculatum* would be most suitable for *Bellis perennis* and *Callistephus chinensis* to get significant biomass production.

17. Hence 25–50% of phosphate fertilizer savage could be achieved using VAM as potential biofertilizer.

18. Interaction studies in floricultural plants with VAM, PSB and *Azospirillum* brought out significant increase in plant height, flower yield and plant biomass production in all the inoculum treated plants when compared to control.

19. Percent of AM colonization and 'N' uptake in *Chrysanthemum morifolium* was increased in tripartite treatment of *Glomus fasciculatum* + *Azospirillum* and *Bacillus polymyxa* when compared to other floricultural plants.