6. SUMMARY AND CONCLUSION

*Tephrosia calophylla* PERS belongs to the family Fabaceae, it is commonly known as Adavivempalli, Dumpavempalli, Gadda vempalli, kommuvempalli in Telugu. This plant is a perennial under shrub found widely in Andhra Pradesh, south India. It is mainly available in localities of hill slopes, rare in shady locations. It is found widely in Talakona forest of Andhra Pradesh.

This plant contains a wide variety of flavanoids and isoflavanoids. Due to the presence of these compounds it exhibits several medicinal properties such as antihelmintic, anti-pyretic and an alexiteric drug. It is also active against leprosy, ulcers, and used as alternative cures for diseases of the liver, spleen, heart and blood. The root is diuretic, allays thirst, enriches blood, cures diarrhea, and is useful in bronchitis, inflammations, antidiabetic, boils and pimples. Leaves are tonic to intestines, and a promising appetizer. The seeds can be used as substitute for coffee.

*Holostemma ada kodien* is an important medicinal plant belonging to family Asclepiadaceae. Commonly known as Guruvindateega in Telugu, Ranimaoi in Hindi, Palaikkirai in Tamil. This plant is available in Adilabad, Kadapa, Tirupathi, East Godavari, Kurnool, Visakhapatnam, Karimnagar, Chittoor, Nizamabad, Nellore, Guntur, Srilanka, Myanmar and western China. But its occurrence has diminished very much within this range of distribution and hence it is considered vulnerable and included in the red list of the
medicinal plants of South India brought out by the Foundation for Revitalization of Local Health Traditions.

It is an extensive hairless perennial climber. Leaves are opposite, deeply heart-shaped, apex bluntly acuminate, margin entire hairless and papery. Flowers are bisexual and have large Calyx without glands. Seeds are many, ovoid, about 1 cm long, flat winged along the margin, with silky white hairs at apex and roots are tuberous.

The plant is used as antidiabetic, rejuvenative, Hepatoprotective, aphrodisiac, expectorant, galactogogue, stimulant and in ophthalmic disorders. There is huge demand for this plant; more than 150 tonnes is required every year in south Indian pharmacies.

_Tephrosia calophylla_ and _Holostemma ada kodien_ contain ash content. It is due to the presence of high inorganic content. However, the ash content is possibly due to the Na$^+$ and Ca$^{2+}$ salts which are not harmful.

Preliminary phytochemical studies of MTCL confirmed the presence of alkaloids, flavonoids, carbohydrates, proteins and Volatile oils in MHK demonstrated the presence of alkaloids, triterpenoids, flavonoids, tannins, steroids, carbohydrates and proteins.

_Tephrosia calophylla_ and _Holostemma ada kodien_ methanolic extracts were tested against different gram positive and gram negative
bacteria. From this study it was found that *Tephrosia calophylla* and *Holostemma ada kodien* extracts were effective against gram positive bacteria than gram negative group.

Acute toxicity of methanolic extract of *Tephrosia calophylla* and *Holostemma ada kodien* was tested in mice. It has been found that these extracts were safe to use to animals even at a dose 6.4 gm/kg perorally.

The MTC and MHK were studied for antidiabetic activity. The study was performed using alloxan induced diabetic model in rats for seven days and the effects were compared with standard drug glibenclamide. Oral administration of MTC and MHK to alloxanised rats significantly decreased blood glucose levels.

With the support of Infra red, NMR and mass spectrums, the isolated compounds TCL-1 and TCL-2 was established may be Spinoflavanone-B and Kaemferol 3,5 di gluco pyranoside respectively in *Tephrosia calophylla* leaves.

With the support of Infra red, NMR and mass spectrums the isolated compounds HK-1 and HK-2 was established may be β-Sitosterol and Acacetin correspondingly in *Holosteema ada kodein*. 