SUMMARY

The present investigation pertains detail pharmacognostical and phytochemical studies of six species belonging to different families viz. Adhatoda zeylanica (Acanthaceae), Phyllanthus emblica (Euphorbiaceae), Mucuna pruriens (Fabaceae), Plumbago zeylanica (Plumbaginaceae), Ruta graveolens (Rutaceae) and Vitex negundo (Verbenaceae). These are the most popular and widely used drug plants in Ayurvedic and Homoeopathic system of medicines. The present study intends to find out their efficacy towards medicinal importance, medicinal potentiality and taxonomic identification.

Mucuna pruriens is extensively cultivated worldwide and is the only species systematically investigated for its chemical and pharmacological properties. However, the taxonomic confusion alluded to the identification of the species and its varieties (Ghosal et al, 1971).

Chemo-microscopic tests for localization have been carried out for starch, protein, saponins, fats, glyceride, alkaloids and tannins. In the root and stem of Phyllanthus emblica alkaloids are not detected.

Reactivity of the powders with different chemicals and extract with different solvents performed show specific colouration, which helps to detect the quality and purity of the drug.

Different purity tests for the samples, like moisture content, total ash content, extractive values in water, alcohol and petroleum ether of the drugs have also been carried out for all studied taxa. Moisture content and water extractive value in the fruit of P. emblica are high while total water soluble ash is found more in amount in leaves of A. zeylanica.

Agnihotra has good effects on the environment of plants and therefore trees grow well, they bloom and bear fruits and flowers (Shri tambade, Nashik).
Morphological and anatomical studies of different organs have been studied in detail. Number of leaves at the node, their shape, size, colour, texture, venation including the leaf surface data, inflorescence, bracts, colour of flower, trichomes, petiole, stem and root structure are the characters which help to differentiate these species.

Phytochemical investigations on these plant species reveal variation in the amount of chemicals present in the different organs. Generally, Proteins, phosphorus, nitrogen and crude proteins are more in seeds of *M. pruriens*. Sugars and phenols are in greater amount in *P. emblica* fruits. Amino acids and Potassium is rich in aerial parts of *R. graveolens* whereas Calcium is the highest in amount in the leaves of *A. zeylanica*.

Present intensive studies on morphology, histology, histochemistry, studies of vegetative organs would be very revealing and significant in the evaluation of these drug plants. Further phytochemical studies are necessary for appropriate and safe conclusion.

*Trees do not live for themselves. They do not small their own flowers, eat their own fruits or enjoy their own shade.*