ABSTRACT
Phytochemical studies of the *Trianthema decandra* [1,2] leaves were carried out in the present study. Morphology of the plant, microscopy of the leaves. Total ash, acid insoluble ash, water insoluble ash and sulphated ash were 16.33% w/w, 3.33% w/w, 4.00% w/w, 2.35% w/w respectively. The extractive values i.e. Methanol, petroleum ether, n-Hexane, ethyl acetate, ethanol and aqueous extract were 40% w/v, 8% w/v, 20% w/v, 12% w/v, 10% w/v, 20% w/v. The preliminary phytochemical studies were performed with various reagents and chemicals on plant methanolic extract in order to determine the various secondary metabolites. By performing the tests it was concluded that carbohydrates, protein, volatile oils, glycosides, saponins, flavonoids, alkaloids are present.

Key Words: Phytochemical screening, *Trianthema decandra* Linn., Ash value, organoleptic properties.

INTRODUCTION:
Pharmacognostical study [1] is the preliminary step [2] in the standardization of crude drugs. The detailed pharmacognostical evaluation gives valuable information regarding the morphology, microscopical and physical characteristics of the crude drugs. Pharmacognostic studies have been done on many important drugs, and the resulting observations have been incorporated in various pharmacopoeias [1]. There are a number of crude drugs where the plant source has not yet been scientifically identified. Hence pharmacognostic study gives the scientific information regarding the purity and quality of the plant drugs. Herbs, annual or perennial, subshrubs, or shrubs, succulent. Stems erect or prostrate. Leaves simple, rarely pinnate, mostly opposite, sometimes alternate, in many species fleshy, margin entire, rarely with teeth; true stipules absent, sometimes a stipule-like sheath present at base of petiole. Inflorescences terminal or seemingly axillary cymes, or solitary flowers. Flowers bisexual, rarely unisexual, actinomorphic, perigynous or epigynous. Nectaries separate or in a ring around ovary. Petals (4 or) 5(8), connate below into a tube. Petals absent or present. Stamens 3 to many, free or connate at base, outermost often as filamentous staminodes; anthers dehiscing by longitudinal slits. Ovary inferior, syncarpous; carpels 2 to many; ovules 1 to many, on long funicles, mostly campylotropous; placentation axile or parietal, sometimes basal-parietal. Stigmas as many as carpels. Fruit a hygroscopic or circumscissile capsule, more rarely a berry or nut. Seeds with slender embryo curved around perisperm, rarely with an aril; endosperm scanty or absent.

About 135 genera and 1800 species: mainly in arid, subtropical regions, most species in South Africa, some in Australia and Western parts of the Americas, some pantropical; three genera and three species in China. The family is divided into five subfamilies, of which two, Sesuvioideae and Tetragonioideae, are represented by native species in China.

MATERIALS AND METHODS
Collection Of Plant Material
Pharmacognostical and Preliminary Phytochemical Screening on Leaves of *Trianthema decandra* Linn.

The plant of *Trianthema decandra* was collected from Dr. K. Madhava Chetty, Sri Venkateshwara University, Tirupathi on 11th Jan 2011.

**Preparation Of Extracts**

The leaves of the plant of *Trianthema decandra* was shade dried for 48 hrs. The dried leaves was powdered and weighed. It was then passed through 80 # mesh size individually. Finally it was packed in an air tight container and used for further studies. The dried leaves were then extracted with Methanol, petroleum ether, n-Hexane, ethyl acetate, ethanol and water successively to give Methanolic extract, petroleum ether extract, n-Hexane extract, ethyl acetate extract, ethanolic extract and aqueous extract. The extracts were collected separately and reduced to a small volume under reduced pressure and temperature and stored at 4°C for further use.

**Phytochemical Screening**

The presence of various chemical constituents in plant extracts was determined by preliminary phytochemical screening as described by Trease and Evans (1978).

**DETERMINATION OF PHYSICOCHEMICAL PARAMETERS**

The seeds of the plant were subjected for determination of physicochemical parameters like organoleptic evaluation, foreign organic matter, swelling factor, total ash value, acid insoluble ash value, water soluble ash value, determination of crude fibre, loss on drying, alcohol soluble extractive, chloroform extractive, water soluble extractives and fluorescence studies (Chase and Pratt, 1949).

**RESULTS AND DISCUSSION**

**Table 1: Organoleptic properties**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Inferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Pale green</td>
</tr>
<tr>
<td>Taste</td>
<td>Bitter</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water and organic solvents</td>
</tr>
<tr>
<td>Size of fibres</td>
<td>Length: 800 µ - 992 µ - 1280 µ Width: 16 µ - 24 µ - 32 µ</td>
</tr>
</tbody>
</table>

**CONCLUSION**

The preliminary phytochemical studies were performed with various reagents and chemicals in order to determine the various secondary metabolites. By performing the test it was concluded that carbohydrates, protein, volatile...
oils, glycosides, saponins, flavanoids, alkaloids are present.

REFERENCES


