Abstract-- Studies on Tamarindus Indica have been extensively performed in many directions including food value and industrial application. A number of volatile chemical constituents have been identified and isolated from Tamarind fruit (Pino 1998; wong et.al). Milletta Pinnata is often known by the synonym Pongamia Pinnata. Common names include Indian beech, pongam oil tree, hong(kannada), pongai(Tamil). The seeds contain pongam oil that is now being explored as an alternate fuel source. The screening test was carried out with the flowers of Milletta Pinnata (Pungam) and Tamrindus Indica (tamarind) and the presence of chemical constituents such as Flavonoids, Phenolics, Tannins, Saponins, Terpenoids, Glycosides, Proteins and Amino acid were checked and the observation was tabulated.

Key Words-- Milletta Pinnata Flower Paste, Tamarindus Indica flower Paste, Screening test, Aqueous extract.

I. INTRODUCTION

Every part of Milletta Pinnata (Pungam) has medicinal effect. Milletta Pinnata flowers range from white to pink to purple colours. The pea shaped blossoms are 15 to 18 mm long. The fruits and flowers of these trees are edible making them a human food source. Its root, bark, leaves, sap and flowers also have medicinal properties and traditionally used as medicinal plants. Tamarind is used for treating a variety of medicinal conditions including cold, constipation, liver problems, gallbladder ailments, fever, and nausea during pregnancy, intestinal parasites and stomach complaints. It is applied on the skin as a dense paste to make a cast for broken bones. Tamarind seed extract is also used for eye solutions to treat symptoms of dry eyes. The Tamarind flowers blossom inconspicuously and they look elongated with red and yellow colours. The Flowers are 2.5 cm wide (one inch), five – petalled, borne in small racemes, and yellow with orange or red streaks. Buds are pink as the four sepals are pink and are lost when the flower blooms.

II. MATERIALS AND METHODS

The flowers of Tamarindus Indica and Milletta Pinnata were collected and made in to paste using a mixer grinder. The paste is put in to double distilled water, boiled for 25 minutes, cooled and filtered using whatman filter paper. The extract is used for various tests.

A. Preparation of Aqueous Extract of Tamarindus Indica Flower

Around 26.37 g of flower paste was dissolved in 260 ml of double distilled water, boiled for 25 minutes, cooled and filtered using whatman filter paper. The filtrate is used for various tests.

B. Preparation of Aqueous Extract of Milletta Pinnata Flower

The flowers were collected and using a mixer grinder made in to paste without adding water. Around 53 g of paste was weighed and transferred in to 1000 ml beaker; 530 ml of double distilled water was added and boiled. Then the solution was cooled. It was filtered and the filtrate was used for various chemical tests.

a. Test for Flavonoids

About 1 ml of extract was added with 1 ml of Con.H₂SO₄ solution and it turned from yellow to orange. It shows the presence of flavones.

b. Test for Tannins/Phenolics

About 1 ml of extract was added with 1 ml of neutral ferric chloride. Appearance of blue or green or red colour was checked for the presence of Tannins/Phenolics.

c. Test for Saponins

About 1 ml of extract was shaken well with 20 ml of water production of foam for 1 cm is checked for the presence of saponins.

d. Test for Terpenoids

Libermann’s test: About 1 ml of extract was added with 3 ml of acetic acid and 1 ml of con.H₂SO₄. The solution was checked to become red to blue for the presence of Terpenoids.

e. Test for Glycosides

About 1 ml of extract was mixed with 1 ml of Ferric Chloride solution and 1 ml of acetic acid which was followed by the addition of con.H₂SO₄ in drops. Appearance of a brown ring at first, finally the whole solution turning brown was checked for the presence of glycosides.

f. Test for Proteins

Biuret test: About 1 ml of extract was treated with 10% sodium hydroxide solution and two drops of 0.1% CuSO₄ solution and was observed for the formation of violet/pink colour.

g. Test for Amino acids

Test solution when boiled with 0.2% solution of Ninhydrin, results in the formation of purple colour suggesting the presence of amino acids.

III. RESULT & DISCUSSION

<table>
<thead>
<tr>
<th>Chemical Component</th>
<th>Observation</th>
<th>Result for aqueous extract of Pungam flower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.Flavanoids</td>
<td>Pink to reddish brown</td>
<td>-</td>
</tr>
<tr>
<td>2.Phenolics/Tannins</td>
<td>Pink colour</td>
<td>-</td>
</tr>
<tr>
<td>3.Saponins</td>
<td>Formation of foam</td>
<td>+</td>
</tr>
</tbody>
</table>
4. Terpenoids | Brown ring - Brown ring | +
5. Glycosides | Initially pink slowly in to brown | +
6. Proteins | Yellow to blue | -
7. Amino acids | After boiling purple | +

<table>
<thead>
<tr>
<th>Chemical Component</th>
<th>Observation</th>
<th>Result for the aqueous extract of Tamarind flower</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Flavanoids</td>
<td>Yellow to Orange</td>
<td>+</td>
</tr>
<tr>
<td>2. Phenolics/Tannins</td>
<td>Yellow to Red</td>
<td>+</td>
</tr>
<tr>
<td>3. Saponins</td>
<td>No foam</td>
<td>-</td>
</tr>
<tr>
<td>4. Terpenoids</td>
<td>Brown ring</td>
<td>+</td>
</tr>
<tr>
<td>5. Glycosides</td>
<td>Brown ring</td>
<td>+</td>
</tr>
<tr>
<td>6. Proteins</td>
<td>Yellow to green</td>
<td>-</td>
</tr>
<tr>
<td>7. Amino acids</td>
<td>Red to Purple</td>
<td>+</td>
</tr>
</tbody>
</table>

The above result was observed during the screening test of aqueous extract of Millletia Pinnata and Tamarindus Indica flowers. The + sign represents the presence of chemical components and the – sign represents the absence of chemical components.

CONCLUSION
Phytochemical screening of aqueous extract of Millletia Pinnata and Tamarindus Indica flower was done. The results revealed the presence of Saponins, Terpenoids, Glycosides and Amino acids in the aqueous extract of Millletia Pinnata flower. In case of Tamarindus Indica flower aqueous extract Flavanoids, Phenolics, Tannins, Terpenoids, Glycosides, Amino acids were present.

References