4. PLAN OF WORK

1. Collection and Authentication of plant
   1.1. Powder microscopy study

2. Preparation of Siddha Formulation

3. Standardization of Formulation
   ✓ Description
     ■ Macroscopic
     ■ Microscopic (Powder)
   ✓ Loss on drying at 105 °C
   ✓ Total ash
   ✓ Acid insoluble ash
   ✓ Water soluble extractive
   ✓ Alcohol soluble extractive
   ✓ particle size (80 – 100 mesh for choornam)
   ✓ Identifications - HPLC/ HPTLC
   ✓ Test for heavy/toxic metals like lead, cadmium, mercury, arsenic
   ✓ Microbial contamination
     ■ Total bacterial count
     ■ Total fungal count
   ✓ Test for specific pathogen
     ■ *E.coli*
     ■ *Salmonella spp*
     ■ *S. aureus*
     ■ *Pseudomonas aeruginose*
   ✓ Pesticide residue

~ 60 ~
- Organo chlorine pesticides
- Organo phosphorus pesticides
- Pyrethroids

✓ Test for aflatoxins (B1,B2,G1,G2)

4. *In-Vitro* Anti-Oxidant Studies

4.1. Nitrous oxide scavenging activity

4.2. DPPH Scavenging assay

5. Evaluation of formulation for asthma

5.1. Safety profile study

5.1.1. Acute toxicity studies

5.1.2. Sub acute toxicity studies

5.2. Anti-Asthmatic Activity

5.2.1. Histamine-induced bronchospasm

5.2.2. Acetylcholine-induced bronchospasm

5.2.3. Mast cell degranulation by compound 48/80

5.3. Anti-Inflammatory Activity

5.3.1. Carrogenin Induced Hind Paw Oedema

5.3.2. Formaldehyde Induced Hind Paw Oedema

5.3.3. Cotton Pellet Granuloma

6. Anti Microbial Studies

6.1. Anti bacterial

6.2. Anti fungal.