



**PASSIFLORA FOETIDA LINN: A COMPLETE MORPHOLOGICAL  
AND PHYTOPHARMACOLOGICAL REVIEW**

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**ABSTRACT**

Medicinal plants and their extracts play a vital role within the medicine system to preserve our health. India being medico diverse country in which the traditional systems of Ayurveda, Homeopathy and Unani recognize by the importance for medicinal plant extract variable in origins. Out of 2000 medicinal plants, which are recognized and are used throughout the system, Passiflora sp is one of them. Many species of Passiflora have been used in therapeutic practice, but rare as *Passiflora foetida* has been described as a passion flower and has been used in treatment of some disease like as anxiety, insomnia, convulsion, sexual dysfunction, cough and cancer. The purpose of this article is to bring together scattered over, literature in respect to minor species *Passiflora foetida* L. a passion fruit and also detail exploration of morphology and photo-pharmacological properties as a sincere attempt to provide a direction for research.

**KEY WORDS:** Passiflora, *P. foetida* L. Morphology, Phytoconstituents, Pharmacological properties



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## INTRODUCTION

The genus *Passiflora* belongs to Passifloraceae family includes the passion fruit, is the largest and the most widespread genus of tropical flora. About 400 species within this genus are grouped into 21 subgenera<sup>1</sup>. More than 350 species have been found in tropical regions and rain forests of South America<sup>2</sup> and 60 of them are edible species. Passion fruit is an important fruit crop in many tropical and subtropical countries due to its edible fruits, ornamental use and medicinal properties. Some species (*P. edulis*, *P. quadrangularis*, *P. ligularis*) are chiefly cultivated into the production of fruit juice. *P. incarnata* is reputed for its sedative properties, and several other species are known for their ethno botanical uses. *P. amethystina* Mikan, found on the rain forest of the Brazilian south-eastern coast<sup>3</sup>, a wild passion fruit species. It has purple-blue flowers, which are very aromatic. The genus also contains some species of ornamental use and medicinal properties as sedatives, antispasmodics and antibacterial<sup>4</sup>. Several species have edible fruits and attractive flowers, about 40 species have been cultivated, but fewer than 6 are fruit crops in the neo tropics and only one, *P. edulis* (and its varieties, such as the yellow favicarpa), is economically important<sup>5</sup>. A few species, such as *P. foetida* and *P. lonchocarpa*, has extremely foul smell<sup>6</sup>. Eleven species, including *P. foetida* and *P. tripartita* (= *P. mollissima*) are recorded as weeds in variable parts around the world<sup>7</sup>. Both *P. foetida* and *P. tripartita* are closely related taxonomically, whereas, *P. edulis* belongs to the different subgenus<sup>5</sup> and is the only economic crop at risk from oligophagous insects attacking *P. foetida*. *Passiflora foetida* (wild water lemon, stinking passion flower, love in the mist or running pop is species of the passion flowers that is native to the southwestern United states (southern Texas and Arizona), Mexico, the Caribbean, Central America, and much of South America. It has been introducing to the tropical region in the world, such as Southeast Asia and Hawaii. It is

a creeping vine like other members of the genus, and yields an edible fruit. The specific name, foetida, means "stinking" in Latin and refers to the strong aroma emitted by the damaged foliage<sup>8</sup>. *Passiflora foetida* L. commonly known as passion fruit is an exotic fast-growing perennial vine occurring in USA and extended to India. Traditionally, the fresh or dried whole plants and their preparations are accepted for medicinal use in European countries for the treatment of nervous anxiety<sup>9</sup>,<sup>10</sup>. *P. foetida* belongs to the same family as *P. incarnata* and are indigenous to many countries, west tropical Africa and in India. Leaves of the plant utilized as folk medicine for treatment of anti-anxiety, stress and insomnia. Additional, they are also useful for the treatment of hysteria, skin inflammation, cough and fever. Chemical constituents in *P. foetida* include hydrocyanic acid, groups of flavonoids and Harman alkaloids.

### ORIGIN AND DISTRIBUTION

South America. Natural population have been observed in the coastal mountain ranges in the State of Parana, Brazil. It is native to northern South America and the West Indies. Widespread throughout the tropics and serious in Southeast Asia; furthermore, a weed in the Pacific Region, West Africa and Central America and Introduced to Java a long time ago.

### CHARACTERISTICS

A foetid, woody, annual or perennial vine, 1.5 to 6 m long; stem, cylindrical, densely hairy; tendrils arise next to leaves on the shaded side of the stem; leaves heart-shaped to three lobed, alternate, arranged helically, with long-stalked glands and long fine hairs on margins, producing a disagreeable smell when crushed; flowers white to lilac, bisexual. It flowers all for the year, opening to the morning and closing before noon. The green to orange or red fruits are enclosed in lacy bracts. A large number of

varieties occur<sup>11</sup>. *P. foetida* is an insect pollinated, herbaceous climber, normally grown in nutrient-poor soils. Each plant produces radiating branches, which bear a cordate leaf and flower bud at every node. Each flower bud is covered by these highly radicate green bracts. Veins of the bracts end with tiny granular structures, which secrete adhesive ooze. Small insects are found a stick to these bracts. These bracts cover the unopened the buds and developing fruits, the open white colored flowers, which last from a day or two, are uncovered ensuring the free movement of pollination.

### SCIENTIFIC CLASSIFICATION

Kingdom : Plantae  
Division : Magnoliophyta  
Class : Magnoliopsida  
Subclass : Rosidae  
(Unranked) : Eurosids I  
Order : Malpighiales  
Family : *Passifloraceae*  
Genus : *Passiflora* L.  
Species : *Passiflora foetida* L.

### MORPHOLOGICAL CHARACTERISTICS

Botanical name: *Passiflora foetida* Family: *Passifloraceae* (passion flower family) Common name: Love-in-a-mist, Stinking passionflower *P. foetida* is a weed of upland rice and other field crops. It occurs in wet areas or at the moist places in damp season. It is common in plantations, rough pastures, roadsides and wasteland. The vine grows by 1.5 to 6 m long. The stem appears cylindrical, covered with dense hairs. Tendrils' arise next to leaves on the shaded side of the stem. Passion fruit is mainly distributed throughout the tropics and appears in Southeast Asia, it is also reported in the pacific region. Some ancient reports are investigated for the presence of *P. foetida* in West Africa and Central America to Java. *Passiflora foetida* bears an unbranched tendril, one or two laterally situated flowers, and one accessory vegetative bud in the axil of each leaf. The shoot apex has a single-layered tunica

and an inner corpus. The degree of stratification in the peripheral meristem, the discreteness of the central meristem, and its centric and acentric position at the shoot apex is important plastochronic features. The procambium of the lateral leaf traces is close down the site of stipule initiation. The main axillary bud differentiates at the second node below the shoot apex. Adaxial to the bud 1-3 layers of cells from a shell-zone delimiting the bud meristem from the surrounding cells. A group of cells from the bud meristem next to the axis later differentiate as an accessory bud. A second bud also developed from the main bud opposite the previous one. A bud complex then consists of two laterally placed accessory bud primordia and a centrally-situated tendril bud primordium. The two buds primordia to differentiate into floral branches. During this development, the initiation of a third vegetative accessory bud occurs along the axis just above the insertion of the tendril. This accessory bud develops into a vegetal branch and does not arise from the tissue of the tendril and adjacent two floral buds. The trace of the tendril bud consists of two procambial strands. There is a single strand for the floral branch trace. The tendril primordium grows by marked meristematic activity of its apical region and general intercalary growth<sup>12</sup>. The bracts of the Stinking Passion Flower are covered by hairs, which exudes a sticky fluid. Many small insects get stuck to this and get digested into nutrient-rich goo by proteases and acid phosphatases. Since the insects usually killed are rarely major pests, this passion flower seems to be a protocarnivorous plant<sup>13</sup>.

### SEEDLINGS

Cotyledons are oval, thick with waxy appearance. The first true leaf is slightly the heart shaped and also glossy appearance. Subsequent leaves have lobes (usually three) arising from a common point (palmately-lobed leaves). Roots position at the shoot apex is an important plastochronic feature. Initially, it develops as a taproot, eventually develop deep

perennial rootstock. The sprouts can be further arising from the rootstock. Root decoction is an emmenagogue and used in hysteria<sup>14</sup>.

### **LEAVES**

Leaves of *P. foetida* are heart shaped to three lobed arising from the common point<sup>11</sup>. Venation is alternate, helically arranged. The margins possess lengthy stalked glands and prolonged fine hairs. It produces a pungent smell on crushing. A tendril, one or two flowers and a vegetative bud are present in the axial of a leaf<sup>12</sup>. In India, the leaves are used in wound dressing and also applied to head to treat the headache and giddiness by the tribal people. Recently, the analgesic effect of hydro alcoholic leaf extracts of *P. foetida*, which was effective in the pain induced by eddys hot plate is reported, in which the two different doses of leaves extract 200mg/kg and 300mg/kg possess the significant activity<sup>15</sup>.

### **STEMS**

The stems grow 1.5 to 6 m in height. It appears cylindrical in shape, thin, wiry and woody, covered with sticky yellow hairs on a total surface. They give off an unpleasant odor when crushed. Stems and leaves are suspected of poisoning live stock.

### **FLOWERS**

Each flower bud is covered by three highly reticulate green bracts. Veins of the bracts end with tiny glandular structures, which secrete adhesive ooze. Flowers are white to lilac, bisexual and about 5-6 cm diameter. It flowers all year round, opening to the morning and closing before noon.

### **FRUIT**

The appearance of fruits is green with orange or red. Fruits are kumquat sized and contain a bluish- white pulp that is mildly sweet and delicately flavored and are enclosed in lacy bracts. The fruit is a globose, 2-3 cm diameter, yellowish-orange to be red when ripe, and has numerous black seeds embedded in the pulp;

the fruit is eaten, and the seeds dispersed by birds. Young fruit is cyanogenic and also eaten by Villagers<sup>16</sup>. The bracts of this plant serve as insect traps, which exude a sticky substance that also contains digestive enzymes. This minimizes predation on young flowers and fruits<sup>13</sup>, but it is as yet unknown whether the plant digests and gain's nourishment from the trapped insects, or if it merely uses the bracts as a defensive mechanism to protect its flowers and fruit. This is still an issue of debate, and it is considered as protocarnivorous plant.

### **SEEDS**

Seeds of *Passiflora* genus vary greatly in size and shape. However, several common features are apparent, including hard seed coats surrounding a white, well-developed, straight embryo, with large flat cotyledons. The thin layer of ruminated endosperm surrounds the embryo. Seeds are flat, black, woody and enclosed in sweet to aromatic pulp<sup>7</sup>. The outer integument is 3-layered in *Passiflora*, but the inner is 3-layered in both. Seeds are covered with a succulent coloured aril which originates as a small outgrowth around the funiculus at the organized embryo sack stage. The seed coat is formed by both the integuments is 6-layered in *P. caerulea* and *P. edulis*. It comprises 6 zones of which the seed epidermis radially elongated inner epidermis of the outside integument. The main sclerotic layer formed by external epidermis of the inner integument is most conspicuous. Which consist of macrosclereids of various sizes and together with inner epidermis of the outer integument form growth which make the endosperm ruminant on<sup>17</sup>.

### **IDENTIFYING CHARACTERS**

1.5 to 6 m long, cylindrical, dense hairy stem; heart shaped, three-lobed leaves; White to lilac, bisexual flowers; Green to orange or red fruits [Figure 1 (A and B)]. There are many species of *Passiflora* or "passion flower" however, only one is thought to be carnivorous: the *Passiflora foetida*. As when the plant flowers, it produces glandular bracts; a bract is a leaf that has a

flower or a cluster of flowers growing at its axil. Enzymes have been found throughout the plant

tissues. However, no enzymes have been found in the bract itself.



**Figure 1**

**(A). Twig of *Passiflora foetida* L. with flower and matured bud;  
(B) Matured fruits in Golden yellow color (*Heliconiine butterflies* / *Arvae* can be seen feeding on leaves)**

### **PHYTO-CONSTITUENTS**

The total fatty acids viz “linolenic” and “linoleic” acids varied from 61.1 to 74.8% was reported in *Passiflora foetida*<sup>18</sup>. Five cyanohydrin glycosides with a cyclopenetene ring, tetraphyllin A, tetraphyllin B, tetraphyllin B sulphate, deidaclin and volkenin were reported in *P. foetida* seeds collected in the Galapagos islands. While the variability in chemical contents viz. tetraphyllin B, volkenin and tetraphyllin B sulphate in *P. foetida* were reported when grown on Reunion island. The chemical changes were accompanied by pronounced morphological differences<sup>19</sup>. Various phyto chemicals are present in *P. foetida*, range from alkaloids, phenols, glycoside flavonoids and cynogenic compounds<sup>20</sup>. Three polyketides  $\alpha$ -pyrones, named passifloricins, were isolated from *Passiflora foetida* resin; their structures and relative configurations were assigned through 2-D NMR spectroscopic analyses. These types of compounds were not detected in other passion flowers<sup>21</sup>. *P. foetida* supposed to be an enormous source of chrysoeriol, apigenin, isovitexin, vitexin, 2-xylovitexin, 2-xylosylso vitexin, lutelin7- $\beta$ -d-glucoside, kaempferol, etc. *P. foetida* also consists of few more important constituents like hydrocyninic

acid, harmane, harmalol, harmine<sup>22</sup>. Apigenin 7,4'-dimethyl ether, 5-Hydroxy-4',7-dimethoxyflavone, Genkwanin 4'-methyl ether, 7-O-Methylacacetin, Acacetin 7-methyl ether and 5-Hydroxy-7-methoxy-2-(4-methoxyphenyl)-4H-1-benzopyran-4-one<sup>23, 24, 25</sup>, Deidaclin<sup>19</sup>, Linamarin, Volkenin; (1R,4R)-Volkenin, (1S,4S)-Tetraphyllin B, (S)-Tetraphyllin A<sup>26</sup> have been already reported in *P. foetida*. *P. foetida* contains alkaloids and at least 10 flavonoids. One of the latter, ermanin (32), is a feeding deterrent to larvae of the nymphalid butterfly *Dione juno* which, in Colombia, do not attack *P. foetida* leaves, but eat the large amount of other *Passiflora* species<sup>21</sup>. Thus, the Ermanin can be good pesticide against such pests and insects. The presence of flavonoids pachypodol, 7, 4'-dimethoxyapigenin, ermanin (32), 4', 7-O-dimethyl-naringenin, 3, 5-dihydroxy-4, 7-dimethoxy flavonone<sup>27, 28</sup> has been reported. Where as a presence of C-glycosyl flavonoids chrysoeriol, apigenin, isovitexin, vitexin, 2''-xylosylvitexin, luteolin-7-B-D-glucoside, kaempferol was reported in species of *P. foetida*<sup>29</sup>. It has been seen that *P. foetida* leaf extracts, which show high antimicrobial activity, have a low antioxidant power and lower amount of o-diphenol and catechin<sup>30</sup>.

### PHYTO-PHARMACOLOGY

Today a vast number of drugs is developed from various medicinal plants possessing excellent therapeutic potential and fewer side effects. Comparison to synthetic drugs, which show some harmful side effects except curing the disorders, *P. foetida* is known for its antianxiety effect from centuries. The crushed fruit juices are used as a potential drug for antianxiety complaints<sup>22</sup>. Some investigations regarding suppression of nervous anxiety by use of *P. foetida* crush are also reported<sup>10, 19</sup>. The extracts of *P. foetida* leaves and fruits are considered as anti-insomnia drugs in various countries from centuries like America, Germany, France and other European countries. Some allied species like *P. incarnata* shows antibacterial activity because of a secondary metabolite called Passicol<sup>31, 32, 33, 34</sup>. *P. foetida* also showed repressing activity against four human pathogenic bacteria, i.e. *Pseudomonas putida*, *Vibrio cholerae*, *Shigella flexneri* and *Streptococcus pyogenes*. The various extracts of leaves and fruits were screened for antibacterial activity, among which ethanolic and acetone extracts showed a more inhibitory result against the pathogens<sup>35</sup>. Crude ethanolic extract of callus induced from *P. foetida* leaves showed significant ( $p < 0.05$ ) in vivo antioxidant activity in  $CCl_4$  induced hepato toxicity model in rats. A dose of 200 and 500 mg b. wt of ethanolic extract resulted in the significant ( $p < 0.05$ ) reduction of serum aspartic amino transferase (AST) and alanine amino transferase (ALT) and hepatic thiobarbituric acid reacting substances (TBARS) levels, which were elevated by  $CCl_4$  challenge in rats<sup>36</sup>. Despite the abundance and known pharmacological effects of passion flowers, a relatively small number has been properly investigated. Since the late 1960s, only about 40 species have been phytochemically researched. A few species, notably *P. incarnata* and *P. edulis*, have even been researched extensively, yet researchers have not been able to identify the single active constituent responsible for their

medicinal effects. Flavonoids and alkaloids are most commonly cited as the active constituents<sup>37, 38, 39, 40</sup>.

### MEDICINAL USES OF P. FOETIDA

Passion flower species have been used in folk medicines against diseases at their native habitats for very long time. Throughout Central America, an infection of leaves from various passiflora species with 2 – lobed leaves are used as a diuretic. India the unripe fruit of *P. foetida* is used as an emetic and a decoction of dried herbage of *P. foetida* is said to have diuretic effect<sup>41</sup>. The leaves and fruits are useful in treatment of asthma and biliousness. Hysteria can be cured by consumption of leaves and root decoction of *P. foetida*<sup>14</sup>. Giddiness and headache are treated by applying paste of leaves on the head<sup>42</sup>. The *P. foetida* is used as or poultices for erysipelas and skin diseases with inflammation in countries like Brazil<sup>43</sup>. Medicinal uses: This species can be helpful in treating digestive problems, including dyspepsia and diarrhea; alternatively, it used as an astringent and expectorant for nervous conditions and spasms. A good example on the application of Aboriginal herbal knowledge is found through the use of *Ficus opposita* and *Passiflora foetida* by northern coastal communities for the treatment of itchy skin conditions such as scabies and tinea. The leaves of the Ficus are crushed and soaked in water to make a liquid application to relieve the itch. The rough sandpaper-like dry leaves of Ficus are rubbed on the skin for tineaform skin infections such as ringworm. After rubbing the area until the skin begins to bleed, the fruit of *Passiflora foetida* is pulped and smeared over the area and left there for one day. There are many species of Ficus used medicinally throughout Asia<sup>44</sup>. This species can be helpful in treating digestive problems, including dyspepsia and diarrhea; alternatively, it used as an astringent and expectorant for nervous conditions and spasms. Young leaves are used in Surinam and Java as a vegetable. It shows

antispasmodic, sedative, anxiolytic and hypotensive activities<sup>45, 46, 47</sup>. The decoction from the leaves and fruits of this plant is used to treat asthma, biliousness and hysteria<sup>14</sup>. The leaf paste of *Passiflora foetida* is applied for headache and to treat skin diseases<sup>43, 42</sup>. Fruit's decoctions of *Passiflora edulis* and *P. foetida* var. *albiflora* were evaluated for the inhibition of activity of gelatinase MMP-2 and MMP-9. Two metallo-proteases involved in the tumour invasion, metastasis and angiogenesis. Both water extracts, at different concentrations, inhibited the enzymes<sup>48</sup>.

## **PROPAGATION**

### **(i) IN-VITRO PROPAGATION**

Many in vitro culture techniques have been described in the *Passiflora* genus, including regeneration from hypocotyl, leaves and cotyledons<sup>49, 50</sup> regeneration from leaf disks<sup>51</sup> and mesophyll and cotyledon derived protoplasts<sup>52, 53</sup> regeneration after protoplast fusion, and micro propagation<sup>54</sup>. A mature endosperm culture has been reported on *P. foetida*<sup>55</sup>.

### **(ii) EX-VITRO PROPAGATION**

The seed of *P. foetida* can be easily collected, and the dried seeds used for germination purpose. In *P. foetida*, the cuttings with two to three growing points each can be used for propagation directly.

## **ECONOMIC IMPORTANCE**

*P. foetida* is a weed of upland rice and other field crops. It occurs in wet areas or those where there is a pronounced damp season. It is common in plantations, rough pastures, roadsides and wasteland. In the Philippines, it is sometimes used as a soil cover in coconut plantations to control *Imperata cylindrica* grass or erosion. In Papua New Guinea, it is planted between sweet potatoes to suppress *Imperata*. Young leaves are used in Surinam and Java as a vegetable.

## **NATURAL ENEMIES**

Upwards of 200 insects are recorded attacking Passifloraceae in Central and South America. The most notable are heliconiine butterflies of the family Nymphalidae. Their larvae develop only on plants of the family Passifloraceae, with the single exception of *Eueides procula*, which will develop on the Turneraceae<sup>5</sup>. Only 5 of the 65 or so species of heliconiines are recorded as pests of *Passiflora edulis*, namely *Agraulis vanillae*, *Dione juno*, *Dryas julia*, *Eueides aliphera* and *E. isabella*, although larvae of a few other species are occasionally found on it<sup>5</sup>). It is apparent that heliconiine butterflies are well worth investigating for species of adequate host specificity to *P. foetida*. A little is known about the natural enemies of *P. foetida*, and no attempts have been made at biological control. The passion vine butterfly *Agraulis vanillae*, an accidental introduction to Hawaii before 1977, is now widespread there. In addition to attacking *Passiflora edulis*, its larvae feed upon the leaves of *P. foetida*, *P. manicata* and *P. suberosa*, but they seldom attack banana poka, *P. tripartita*, which is a serious forest weed in Hawaii. *P. foetida* occurs generally in highly disturbed areas, where it is a very minor component among other introduced species. On the west side, the taxon has red fruit and, on the east, green. It has very few natural enemies, except for *Agraulis vanillae*. The other species of heliconiine recorded as attacking *P. foetida* is *Heliconius hecale*, which is widespread in Central and South America and attacks a large number of Passifloraceae<sup>6, 5</sup>. On the other hand, larvae of *H. charithonia*, *H. cydno* and *H. erato* did not develop on *P. foetida*<sup>5</sup>. Although the moth also occurs in India and Japan it is not known from *P. foetida* there, but attacks two economic plants, the legume's lablab bean, *Lablab purpureus* and pigeon pea, *Cajanus cajan*<sup>56</sup>. Thus, there is some uncertainty, whether the host specificity of the African

taxon is the same as that in Asia. In Hawaii, the fungus *Fusarium oxysporum* f. sp. *passiflorae* attacks *P. foetida*, *P. tripartita* and *P. ligularis*, but not *R. suberosa* or the cultivated *P. edulis* f. *jlavicarpa*<sup>57</sup>.

*Fusarium* wilts, was first reported in 1951, in Australia where it became widely spread, affecting purple passion fruit commercial orchards, including *P. foetida*<sup>57</sup>. The *Fusarium* wilts is caused *Fusarium oxysporum* f. sp. *Passiflorae*, with typical symptoms are glossy green leaves of young passion fruit plant show a pale green color, and mild dieback can be observed. *P. foetida*, however, when infected with CMV displays intermittent yellow mosaic leaves, but the virus does not disappear from the vines<sup>58</sup>. The CMV is a type of species of genus cucumovirus. It is naturally transmitted by several species of aphides and also by mechanically to seedlings. Still no measures in the control over the disease have been recommended for the passion flower crop in Brazil. A novel potyvirus is first described from *Passiflora foetida* from the Indonesian province of Papua, the Torres Strait Islands and Cape York Peninsula, Queensland. Infected plants had yellow/green mosaic symptoms, sometimes ringspots and chlorotic spots, and were not infected by other known viruses. The virus was transmitted by *Aphis gossypii* in a non-persistent manner. Analysis of the core and 3' regions of the coat protein sequence and the 3' untranslated region of protein revealed a potyvirus distinct from, but most closely related to, *Zucchini yellow mosaic virus* and *Ceratobium mosaic virus*. The virus is tentatively named *Passiflora virus Y*<sup>59</sup>. Crown rot has been reported in *P. foetida* along with various other species<sup>60, 61, 62, 63</sup> which as like mild chlorosis followed by plant wilt, defoliation and death. The causative agents are *Phytophthora cinnamomi*, *P. nicotianae*. It was found out that *P. foetida* was most resistant to the disease under green house conditions and were less affected by *H. haematococca*, then *P. edulis*, so it is

recommended that their use as root stock may be possible as a controlling measure<sup>64</sup>. Brown spot disease is first verified in Australia<sup>65</sup>, In India brown spot has been recorded in India<sup>66</sup> and also in other countries. It occurs on *P. foetida* as well as on other species as well and the incidence on yellow passion fruit in areas with high rainfall can be as 98%<sup>67</sup>. *Alternaria passiflorae* causes reddish-brown spots normally to grow larger as the major symptoms<sup>68</sup>.

## CONCLUSIONS

Natural products from folk remedies have contributed significantly in the discovery of modern drugs and can be an alternative source for the drug with novel structures and better safety and efficacy profiles. Review of *P. foetida* L. is a kind of knowledge pack, which would define various aspects regarding the plant. The ethno pharmacological importance of *P. foetida* L. not only in India but also in the world has proven extensively by modern research. Undoubtedly, the Plant comprises a varied array of bioactive phytoconstituents. Their exploitation certainly raced the efforts of pharmaceutical drug development. The documentation of traditional knowledge is inherently important as it provides necessary reference for effective policymaking for the preservation of natural environment and national heritage. Its importance as cultural evidence can no longer be denied in light of diminishing knowledge.

## ACKNOWLEDGEMENT

This research project was supported by grants from the Department of Science and Technology, Govt. of India, New Delhi, under the Fast Track Young Scientist Project (No. SR/FT/LS-127/2008). The Department of Biotechnology, Sant Gadge Baba, Amravati University, Amravati provided the authentic bacterial cultures and necessary facilities.



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