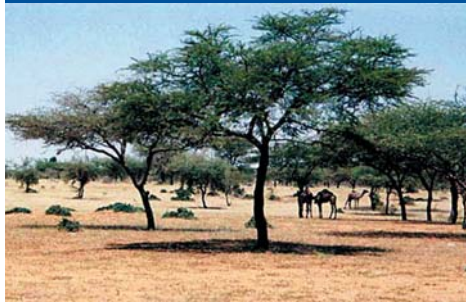


***Acacia tortilis* (Forsk.) Hayne**  
Leguminosae (Mimosoidae)



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### ■ Morphological Description

Medium umbrella-shaped tree 4-15 m tall, often with several trunks, reduced to a small wiry shrub less than 1 m tall under extremely arid conditions. Two types of thorns: straight and white, or small, hooked and brownish. Leaves up to 2.5 cm long with 4-10 pairs of pinnae, each with ca 15 pairs of minute leaflets. Flowers white, aromatic, in small clusters. Pods flat, glabrous, coiled into a spring-like array. Flower initiation in May-June, fruit in July, but ripening from November through to February.

### ■ Geographical Distribution

**Local:** The Nile Delta, Nile Valley, Oases, Sinai and Western Desert.

**Regional:** Middle East and Egypt.

**Global:** Native to much of Africa and the Middle East.

### ■ Ecology

This species ranges from subtropical desert to dry through tropical desert to very dry forest life zones. The umbrella tree is reported to tolerate annual precipitation of 10-100 mm, an estimated annual temperature of 18-28 °C and pH of 6.5-8.5. This species tolerates hot, arid climates with temperatures as high as 50 °C. It is best adapted to the lowlands. It thrives where rainfall is up to 1,000 mm. It is also extremely drought resistant and can survive in climates with less than 100 mm annual rainfall with long, erratic dry seasons. The tree favours alkaline soils. It grows fairly well in shallow

Two subspecies occur in Egypt:

### ***Acacia tortilis* (Forsk.)**

Hayne, Getreue Darstell. Gew. 10, t. 31 (1827).

Syn. *Mimosa tortilis* Forssk., Fl. Aegypt.- Arab. 176 (1775).

### ***Acacia raddiana* (Savi)**

Brenan, Kew Bull. 12:87 (1957).

Syn. *Acacia raddiana* Savi, Alc. Acacie Egiz. 1 (1830).

### Names

**Arabic:** Sayaal سيال, Talh طلع Samor سمر

**English:** Umbrella Thorn, Israeli Babool

soil, less than 0.25 m deep, though it develops long lateral roots. In shallow soil, the plants remain shrubby and must be widely spaced to allow for their lateral root growth.

### ■ Status

The fruit is collected upon complete ripening. Storage: fruit is packed in large sacs of guts or cotton and ranked onto wooden tables in dry and dark places. The place should have a good ventilation system and must be away from insects and rodents.

### ■ Part(s) Used

The pods, bark and wood.

### ■ Collection

In all stages.

### ■ Preparations

Infusion, decoction and dust.

### ■ Use

Oral.

### ■ Constituents

It is reported that pods contain close to 19 % protein, 2.5 % fats, 46.5 % carbohydrates, 5.1 % minerals and 20.1 % crude fibre. Leaves contain flavonol glycosides, ellagitannin and galloyl

glucoses.

### ■ Pharmacological Action and Toxicity

The plant showed powerful molluscidal and algicidal activities.

### ■ Pharmacopoeia

Not available

### ■ Phytopharmaceutical Products

Not available

### ■ Traditional Medicinal Uses

- Anthelmintic
- Antidiarrhoea
- Asthma diseases
- Pulmonary diseases
- Vermifuge and dusted onto skin ailments.

**Other uses of the plant:** the timber is used for fenceposts, firewood, furniture and wagonwheels. The prolific pods made good fodder for desert grazers and the foliage is also palatable. The gum, said to be edible, was used as a poor man's gum arabic. The tree has been recommended for reclaiming dunes. The thorny branches can be used to erect temporary cages and pens. The bark is a good source of tannin and used in tanning.

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