

# FISH BEAN

*Tephrosia vogelii*

Fabaceae

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## ECHO® PLANT INFORMATION SHEET

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### Origin

Fish Bean is native to West Africa, but is now found in India, Asia, and other tropical regions.

### Uses

Plant on the edges of terraces for erosion control and for mulch. Fish Bean shrubs are used as a bush green manure in rubber and oil palm plantations and as a shade tree for young tea, cocoa, coffee, and rubber trees. Fish Bean shrubs produce a great amount of leaf matter, grow very quickly, and are easy to establish. Termites will not eat the leaves, so where there are many termites, using the leaves as mulch can be very effective. Do NOT use as a fodder for animals or as a fish poison in ponds.

### Cultivation

Soak the seeds for about 24 hours to get germination (about 90%). Plant the seeds 60 cm - 90 cm (2 ft - 3 ft) apart and in 7 months the plants will be 1.8 m - 3 m (6 ft - 10 ft) high. They are easier to establish than neem, which is also used for insect control. If very large numbers are planted, use 35,000 seeds per hectare (14,000 per acre) for greatest leaf yield.

### Harvesting and Seed Production

Only the leaves need to be taken off the shrub. If removed carefully, the shrub will continue to produce leaves for extract or mulch. Please note: if you would like to order large quantities of seed, try the Inland and Foreign Trading Co., Block 79A, Indus Road #04-418/420, Singapore 0316; phone: 2722711; fax: 2716118.

### Pests and Diseases

NOTE: If you do not wear plastic gloves when using insecticides, you should try to keep the insecticide away from your skin and wash your hands carefully with soap as soon as you have finished using the insecticide. To control insects in stored grain: take fresh leaves and dry them under the sun. Grind the dried leaves into a powder. Mix 100 gm (3.5 oz) of powder with 100 kg (220 lbs) of maize to control maize weevils and the larger grain borer. Mix 100 gm (5.3 oz) of powder with 100 kg (220 lbs) of beans to control the bean bruchids. This is effective for up to 3 months. After that time, the process must be repeated. Before using the maize for eating, thoroughly wash off the Fish Bean powder.

To control ticks, lice, and flies on animals: wash the animals with extract of the plant. To make the extract, pound fresh leaves and branches in a mortar. Dilute this with five times that volume of water. Wash the animals with this mixture. In the house: in the evening, the walls of the room, especially corners, are beaten with fresh branches to repel mosquitoes, lice, ticks, cockroaches, etc.

To make an insecticide, two different methods have been suggested: (1) Pound fresh leaves and dilute with five times that volume of water. Allow the mixture to soak overnight or boil it for 30 minutes. Add 5 ml (1 tsp.) of soap to each liter (quart) of water to help the spray stick to the leaves. Or (2) An effective concentration for killing insects was found to be 20 gm (1 oz) of fresh leaves for every 100 ml (3.5 oz) of water. If a scale is not available, take the amount of leaves equal to the weight of an empty 300-ml coke bottle. Crush the leaves; they do not need to be crushed perfectly; you can use a plastic feed bag and large rock. Add 7 coke bottles full of water to the leaves. Put the mixture in shade, and let it set for 2 hours. Pour the mixture through a cloth to filter it. Use the mixture directly in a sprayer. The "used" leaves may be reused for a second extract. Tests have not determined concentration levels but have shown that effective chemicals are left. If all the spray is not used immediately, it will still be approximately 70% effective 24 hours later IF kept out of direct sunlight. After that, it quickly loses strength. It is important that the spray have contact with the pest. If the pest is underneath the leaves, be sure to actually hit the pests. This insecticide can be used with garden vegetables, fruit, and field crops to control termites, ants, beetles, aphids, cutworms, various bugs and weevils, stalk borers, flies, etc. It will kill every caterpillar overnight; most natural insecticides don't work that fast. A mixture of Fish Bean extract and soap in water was far more effective against aphids than the soap mixture alone. The Fish Bean mixture alone (without soap) was as effective as Malathion, a deadly poison.

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### References

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=2059>