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**FILE: Fenugreek
(*Trigonella foenum-graecum L.*)**

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RE: Fenugreek Monograph

Hebel, S.K., *et al*, eds. Fenugreek, in *The Lawrence Review of Natural Products*. St. Louis: Facts and Comparisons, July 1996: 1-3.

This monograph on Fenugreek (*Trigonella foenum-graecum L.*) discusses the history, chemistry, pharmacology, and toxicology of this common plant native to Asia and Southeastern Europe. Fenugreek has traditionally been used as a cooking spice and folk medicine for such ailments as diabetes, boils, cellulitis, and tuberculosis. Its use dates back centuries. Fenugreek seed extract is used for imitation maple flavoring. Agriculturally, it is grown as animal fodder and for the commercial production of steroids. The nitrogen and protein-rich waste from the pharmaceutical industry is used for agricultural fertilizer.

Fenugreek leaves contain saponins which are glycosides of diosgenin. The seeds contain 0.1 percent to 0.9 percent diosgenin, which is used in the production of steroids. The seeds also yield several coumarin compounds, alkaloids, and several C-glycoside flavones. A mucilaginous fiber, comprising 50 percent of the seed, is used internally to treat constipation and diarrhea, and externally in poultices and emollients.

Studies have demonstrated the ability of fenugreek to significantly reduce serum cholesterol in laboratory dogs and rats. A hypoglycemic effect has been shown in diabetic dogs. Fenugreek seeds reduced blood glucose, plasma glucagon, and somatostatin levels as well as carbohydrate-induced hyperglycemia, resulting in decreased insulin dosages in diabetic dogs. In both cholesterol and blood sugar testing, the defatted portion of the seed demonstrated the pharmacologic activity. The lipid extract of the seed did not produce results. The method of action is unknown but may be due to the saponins, alkaloids, or to the high fiber content of the seed.

Other studies have demonstrated anti-inflammatory and diuretic activity in animals, and an extract of the leaf repels some insects. An apparent ability of fenugreek to reduce the amount of calcium oxalate deposited in the kidneys is under study.

No adverse reactions to fenugreek have been found when taken in culinary quantities. Theoretically, a large dose of fenugreek could result in hypoglycemia. —*Leela Devi, MSN, RN*

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