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### ***Trigonella Foenum-Graecum L. (Fenugreek) and its Antimicrobial Activity***

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#### EDITORIAL

Nature has been a source of medicinal plants for thousands of years since the beginning of man. Interest in medicinal plants has grown significantly from the use of herbal products such as natural cosmetics and self-healing by the general public for their natural effects. According to the World Health Organisation (WHO), more than 80% of the world's population relies on herbal remedies for their basic health care needs. Currently, there has been a growing interest around the world to identify antioxidants compounds that work well in pharmacies or that have side effects or side effects in the pharmaceutical and food industries. Herbs and spices are widely used as dietary supplements of natural antioxidants. *Trigonella Foenum-Graecum L.* better known as Fenugreek belongs to the family Fabaceae. It is one of the most promising treatments known since ancient times. Its seeds and green leaves are used for food and medicinal use and provide natural dietary fibres and other nutrients needed by the human body. This also helps to fix nitrogen and enrich the soil. Fenugreek leaves were found to contain ascorbic acid of 220.97 mg/100 g leaves and  $\beta$ -carotene of 19 mg/100 ml of leaves. It also contains fibres and high levels of calcium, zinc, and iron. Fenugreek seeds have a maple flavour and a bitter taste but with the roasting process their bitterness can be reduced and the taste can be improved. Seeds contain flexible oil and non-volatile oils in small amounts. These rich sources of soluble food fibres contains saponins, hemicelluloses mucilage, tannins, and pectin and these compounds help to lower the Low-density Lipoprotein Cholesterol (LDL) in the blood by preventing the accumulation of bile salts in the colon. Fenugreek seeds are rich in proteins such as globulin, histidine, albumin, and lecithin. Fenugreek is a promising drug-resistant agent in cancer patients under chemotherapeutic intervention because fenugreek extract shows a protective effect by modifying cyclophosphamide apoptosis induced and lipid peroxidation of free radical lipids in the urinary bladder of rats. Diosgenin (C<sub>27</sub>H<sub>42</sub>O<sub>43</sub>) is a crystalline steroid saponins derived from fenugreek and has been used as a starting material for the production of steroid hormones such as cortisone and progesterone, found to be potential for cancer treatment. Fenugreek seeds have a hypoglycaemic effect and hypo-cholesterolemic improves glucose tolerance which contributes to improving glucose tolerance and has a hypoglycaemic effect by acting on the level of insulin receptor and at the stomach level. Fenugreek contains phenolic and flavonoid compounds that help to increase its antioxidants capacity. It also can lower hepatic lipids in the body due to its ability to alter the functions of several enzymes such as glucose-related enzymes and lipid metabolism. Based on previous scientific findings made by Fenugreek could be a variety of health benefits that can be derived from this natural medicine but in some serious cases such as patients with chronic asthma should be avoided or its use should be reduced.