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Tropical almond; a potential cure for gastric and urinary tract infections?

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Urease, an enzyme produced by various bacteria, fungi and plants, is a major factor in the development of gastrointestinal tract disorders, peptic ulcers, and urinary tract infections that can sometimes lead to stomach cancer. This is because urease enables bacteria such as *Helicobacter pylori* to survive in the acidic environment of the stomach. In plants, urease is abundant in leguminous seeds and a common bacterial urease is the *Helicobacter pylori* urease.

Urease inhibitors are useful in treating a range of serious complications brought by urease. Although antibiotic treatments can heal ulcers, prevent reappearance of peptic ulcers, and lower the risk of stomach cancer in high-risk groups, the resistance of bacteria towards these antibiotics has increased. Due to this reason and other concerns such as toxicity and undesirable side effects, although efficient antimicrobial medications are available, there is still room for improvement.

Tropical almond, also known as 'Kottamba', which is *native to Southeast Asia, is well known for its nutritional fruit and medicinal benefits*. It grows as a large tree in subtropical and tropical environments. Researchers have proven *that its plant parts are important for the protection against acute liver injury and microbiological infections*. Parts of the plant are also used internally to treat stomach-aches and headaches. According to Ayurveda and Siddha medicine, *all parts of the plant have been used in treating various diseases* including treatments of inflammation illnesses, wounds, allergies, skin issues, ulcers, diarrhea, and many other ailments.

Therefore, in this research we are focusing on the use of tropical almond in traditional medicine, and we have identified that it possesses properties that are important for treating gastric ulcers and urinary tract infections caused by urease enzyme, secreted by bacteria residing in the gastrointestinal tract. Based on the results, future research can examine the capability of tropical almond to be used as a cure for infections caused by bacterial urease.

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