

Examining The Healing Mystery Of Aloe

COLLEGE STATION - If grandma gets a bedsore, the best thing to put on it might be a plant that's been used for 5,000 years.

The mysterious Aloe vera has been a source for healing since Old Testament times, and a Texas A&M University researcher is trying to uncover just what the substances are in the plant that work wonders and how they do it so that more might be learned about treating wounds.

Dr. Ian Tizard, a professor of immunology in the College of Veterinary Medicine, is studying a special polysaccharide, the substance that forms along cell walls of the Aloe vera, to see how it performs its healing tricks.

The Aloe vera is native to North Africa but now can be found almost worldwide, Tizard says. A succulent, it thrives in warm and dry climates very much like cactus does.

But unlike its prickly cactus cousin, Aloe vera is in a class by itself when it comes to certain healing properties.

There are more than 100 species of aloe, but Tizard says Aloe vera is the one that has drawn the most scientific interest.

"When Aloe vera is placed on many types of wounds, such as bedsores, it can often heal the wound quickly, and the likely reason why is the special polysaccharide in it," Tizard explains.

"Many plants contain this polysaccharide, but the kind found in Aloe vera works differently, we've learned. It seems to bind growth factors in wounds whereas normally they would be destroyed. Aloe vera polysaccharide seems to speed along the healing process much quicker.

"How it does this, that's what we're trying to find out."

Aloe vera (aloe is an Arabic word for a bitter substance, vera is Latin for truth) has long, pointed leaves consisting of green rind and clear pulp. The pulp is the part of the plant that has the healing agents in it.

"It comes out of the plant like a clear liquid, but when it touches human skin, it becomes a gel," Tizard says. "It acts as a wound sealant in this gel state, and no other plants do so."

Especially benefiting from such treatments could be the elderly, who are susceptible to bedsores, diabetic ulcers and vascular (circulation) ulcers.

"Geriatric patients often have wounds that won't heal properly or take longer to heal,"

Tizard says. "That's one of the things we're looking at - how can wounds heal quicker, and what role does the Aloe vera plant play in this quicker healing process?"

There's not much of the Aloe vera plant that isn't useful, Tizard notes.

The rind of the plant has been used as a laxative while the pulp has been put on burns and wounds for thousands of years. Besides being used in lotions and medicines, in recent years cosmetic companies have used Aloe vera in a variety of products, especially moisturizers.

Tizard's research is funded by Delsite Biotechnologies of Irving, Texas.