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MEDIA RELEASE

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UM CHEMIST AND U.S. FOREST SERVICE
BATTLE POISON OAK

MISSOULA--

With funding from the U.S. Forest Service, Edward Waali, associate professor of chemistry at the University of Montana, completed research in an effort to help solve what amounts to a major economic expense for the Forest Service--poisonous plants.

His research was aimed at finding a method of deactivating urushiol, the chemical culprit in poison oak, ivy and sumac which causes dermatitis when exposed to skin.

The Forest Service loses a significant amount of money each year, he said, when fire fighters are temporarily taken off the crew after coming into contact with poisonous plants. The problem is most prevalent in California, he said, where poison oak is extremely abundant.

Using a synthetic version of urushiol, Waali began his research by experimenting with various solid chemicals such as aluminum oxide and activated charcoal which might be effective in absorbing the urushiol. Such substances could become part of a protective clothing that would keep the poison from spreading.

Waali found that while both substances were effective in binding the urushiol in the laboratory tests, the granules weren't completely effective when used in the field.

He later tested cloth such as cotton, wool, and synthetics but found that none absorbed much urushiol on its own.

(over)

The solution, Waali said, is to combine the two approaches and find a way to assimilate the aluminum oxide or charcoal granules into the cloth to form a protective barrier.

In testing various substances and materials for their absorbent qualities, Waali said he has completed "one prong of a multiprong approach." The Forest Service is currently using his test results in planning the development of possible products.

"We're much encouraged by what we've found out," said Jerry Oltman of the Forest Service Equipment Development Center.

He said the center is considering using aluminum oxide in a spray can or creating a wrist and forearm band made of fabric treated with either the activated charcoal or the aluminum oxide. He said that the Forest Service will again consult Waali to measure the effectiveness of the products that are now only in the formative stages.

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