



Human Health & Nutrition

What cures lurk in Idaho sagebrush roots? UI's Crawford investigates

Beneath a 50-year-old sagebrush, UI microbiologist Don Crawford believes he may find the microbial source of a powerful new antibiotic to combat dangerous fungal infections.

"Only about a half-dozen drugs are important for treating systemic fungal infections," Crawford said, "and there are signs that pathogens such as *Candida* are beginning to develop resistance against amphotericin B, the gold standard of antifungal antibiotics."

That is the history of disease organisms and scientists' efforts to find drugs to fight them. As a drug is dispensed, bacteria and fungi eventually develop resistance to the drugs.

Fungal infections are difficult to control because, unlike bacteria, fungi are much like our cells. Drugs toxic to fungi often are also toxic to human cells.

For those with weakened immune systems, fungal pathogens, such as *Candida albicans*, can quickly advance from a superficial infection to a lethal, systemic one.

Crawford is exploring the rootzone of sagebrush plants in search of bacteria that manufacture potent antifungal agents to keep their main desert competitors at bay.

After screening hundreds of bacteria-laden soil samples from Idaho deserts, Crawford and his students have isolated two new strains of *Streptomyces* bacteria. Both appear to manufacture powerful antifungal chemicals that show potential to control *Candida* strains resistant to today's antibiotics.

Crawford already has brought several commercial products to market that are used to cleanup environmental contamination by TNT, neutralize explosive charges, fight fungal infections of plants, and remove thatch from turf.

Contact Crawford at donc@uidaho.edu.

UI Extension helps food stamp recipients

Idaho's food stamp enrollment peaked at 94,954 in June 2005, up from 92,963 in 2004. Education is an important part of improving nutrition for Idaho's food stamp participants.

Starting in 2004, UI Extension worked with Idaho's Department of Health and Welfare to expand focus of the UI's Extension Nutrition Program (ENP) for food stamp enrollees. Participants had the option of enrolling for six core classes or attending single classes.

During fiscal year 2005, nearly 5,000 enrolled in the six core classes while 30,575 youths and 13,244 adults attended single classes. (Records do not track who attends multiple classes). Topics include food safety, food resource management, serving sizes, labels, and low-fat foods and meals. Federal funding for FY2005 was \$730,550.

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DID YOU KNOW?

48% Of all individuals receiving food stamps in Idaho are children.

*Source: Idaho Department of Health & Welfare
Facts/Figures/Trends 2005-2006

Teaching practical nutrition to a captive audience

Idaho continues to have a number of young female inmates. Many are mothers of young children. In the 1990s, Idaho Legislature first requested that "soon to be paroled" inmates receive life skills training to help them resume their family roles upon their release. The Department of Corrections contacted the UI Extension's Expanded Food and Nutrition Education Program (EFNEP) to teach female inmates things like budgeting, practical nutrition, meal planning, grocery shopping, basic food preparation, and food safety.

In the last five years, 768 female inmates in Ada County alone signed up for six core nutrition classes; 674 women completed them. Eighty-five percent made a positive change in their eating habits at exit. One summarized EFNEP's impact: "Wow! I loved cooking today. It makes me want to go home even more and cook for my family."

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