UMATILLA COUNTY SWCD e-NOTES

Visit us online at: www.umatillacountyswcd.com

July 2009

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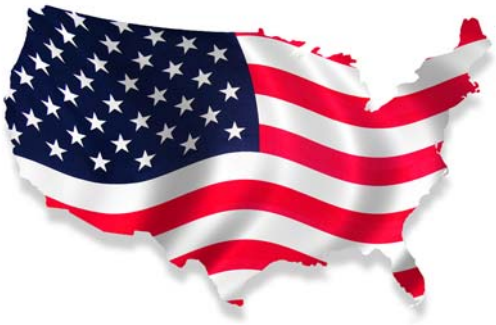
Ag Resource Specialist

Heidi Hartman
Natural Resource Specialist

Teresa Walchli
Clean Water Neighborhood Coordinator

JULY 8TH 6-8:30 P.M.
SWCD BOARD MEETING
PUBLIC WELCOME TO ATTEND
200 SE HAILEY AVENUE
JOHN MURRAY BUILDING
PENDLETON



UPCOMING EVENTS

- **July 3rd - Umatilla County SWCD office will be closed in observance of Independence Day**
- **August 11-15th - Umatilla County Fair**

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July 2009

Heidi Hartman
Natural Resource Specialist

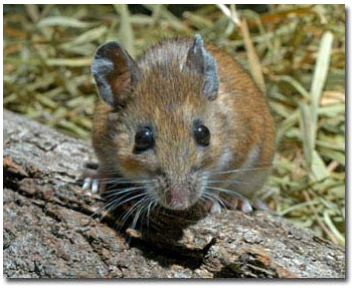
Grazing Animals Help Spread Plant Disease

Science Daily (Jan. 6, 2009) — Researchers have discovered that grazing animals such as deer and rabbits are actually helping to spread plant disease – quadrupling its prevalence in some cases – and encouraging an invasion of annual grasses that threaten more than 20 million acres of native grasslands in California.

The findings run contrary to what had been predicted by other theories, which had suggested that "consumers" such as deer would help to contain or reduce disease. They point once again to the complexity of natural ecosystems and the many ways in which plants, animals and even viruses interact with each other.

The work was published the week of December 29 in *Proceedings of the National Academy of Sciences*, by researchers from Oregon State University, Cornell University and the University of North Carolina.

"We usually think of a disease and its host as very tightly coupled, like a flu virus that infects humans," said Elizabeth Borer, an assistant professor of zoology at OSU. "But in natural ecosystems we're finding it's not nearly that simple, and to understand how plant pathogens work we have to consider the entire food web and many plant/animal interactions of which we are barely aware."



The work is of particular importance, researchers said, because so many elements of ecosystems are undergoing rapid change, from human manipulation, climate change, increase or decrease in various species, new invasive species, and other factors. Any one of those changes could have ripple effects with seemingly unrelated diseases or other issues that are poorly understood – an increase in the abundance of white-footed mice, for instance, has been shown to increase Lyme disease risk in humans.

In this study, scientists examined the effect of herbivores and omnivores such as mule deer, rabbits and feral pigs on the prevalence of barley and cereal yellow dwarf viruses, which can infect more than 100 crop and non-crop plant species, reducing their growth and seed yield. This virus is a major concern for cereal crop production around the world.

In places where most plant eaters were kept out of test plots, the prevalence of this virus was only about 5 percent. It rose to 18 percent, a 3.6-fold increase, in areas that the animals grazed.

The grazers did not directly spread the plant virus, researchers said. Rather, they increased the amounts of annual grasses that are preferred by the aphids which play a role in transmission of this viral plant disease. That allowed for a much greater prevalence of the virus in areas where grazing took place.

"Even in complex natural communities, alternations to food web composition such as consumer invasion or extinction can lead to significant impacts that cascade through entire communities, including changes in infection risk," the researchers wrote in their report.

Adapted from materials provided by Oregon State University, via EurekAlert!, a service of AAAS.
Oregon State University (2009, January 6). Grazing Animals Help Spread Plant Disease. *ScienceDaily*. Retrieved January 14, 2009, from http://www.sciencedaily.com /releases/2008/12/081229200736.htm

Umatilla County Soil and Water Conservation District
Pendleton, Oregon

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July 2009

Corrie Thorne

Ag Resource Specialist

Weed Control and Mulch Mats within your CREP

Keeping your plantings, free of weeds is a battle, but if you approach it with a strategic plan, you will prevail. In order to develop a plan, you first must understand how weeds work, and what kind of weeds you are dealing with.

Basically weeds grow either from seed, or they reproduce from their roots. As the roots grow outward from the parent plant new plants sprout up from the lateral roots, creating more parent plants and the process continues and the weeds thrive. Weeds that tend to reproduce from the root are usually more difficult to control.

Weed control facts? Depending on the time of the year, there are a few billion weed seeds drifting through the air at any given time, so to think that you can eventually rid a garden of weed seed is false thinking, but at least this process is effective for the remaining roots, which are the most difficult to control.

Weed controls facts? Weeds are plants, and they function just like the desirable plants in your yard. They need water, sunlight, and nutrition to survive. Of these three key survival needs, the easiest one to eliminate is sunlight. Through proper mulching you can eliminate the sunlight.

Mulch mats have shown in some cases to improve soil structure, keep soil cooler during high summer temperatures, conserve water and even aid in the suppression of root rotting fungi. But perhaps the most apparent quality mulches have, are their effect on the suppression of weeds. Weed control using a sufficient depth of the applied mulch can provide control which is comparable to the application of herbicides. Mulches have a lesser effect against established perennial weeds which can emerge through deep layers of the applied mulch.

Again, keep in mind, weeding is a battle. But with a strategic plan, it can be won!

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Teresa Walchli
Clean Water Neighborhood Program Coordinator

Fight the Bite

West Nile Virus is a disease mostly affecting bird populations. Human illness from West Nile virus is rare, even in areas where the virus has been reported. The chance that any one person is going to become ill from a mosquito bite is low. However, people are concerned and asking questions about how best to prepare and protect themselves from West Nile virus. The Washington County Department of Health and Human Services is working closely with regional and state health experts to coordinate the County's response to West Nile virus.

What you can do

Mosquitoes need standing water to breed. Look for and eliminate the places around your home where water collects. Encourage your neighbors to do the same.

- Empty buckets, watering cans, flower pots, wagons, and wheel barrels.
- Maintain ponds, outdoor pools, and hot tubs in good working order.
- Prevent water from pooling in children's toys such as tire swings and wagons.
- Install tight fitting screens on all windows and doors.
- Avoid being outdoors during peak biting times: from dusk to dawn.
- Wear long sleeves and long pants while outdoors.
- Use mosquito repellent with DEET, Picaridin or lemon eucalyptus.

Mosquitoes and Stormwater Facilities

Clean Water Services is working with the Washington County Department of Health and Human Services and local cities to monitor and control mosquitoes in stormwater ponds, local wetlands and streams, and the public drainage system. Below you'll find these helpful handouts:

- West Nile Virus & Stormwater Frequently Asked Questions (PDF, 458KB)
- West Nile Response Plan (PDF, 8MB)

For more information on West Nile virus and mosquito control: Website describes causes, symptoms and prevention of West Nile Virus.

- West Nile Virus brochure (PDF, 3MB)
- West Nile Virus tip card (PDF, 592KB)
- West Nile Virus bookmark (PDF, 459KB)

Oregon Department of Human Services: Contains information about infection, reporting, statistics and surveillance of West Nile Virus in Oregon.

Center for Disease Control (CDC): Website gives home and community tips for protecting against West Nile Virus.

Environmental Protection Agency (EPA): Various resources for mosquito control.

NW Mosquito & Vector Control Association: Describes NWMVCA's role in West Nile Virus awareness and education.

National Pesticide Information Center: Website provides information about West Nile Virus related to pesticide use.

Contact West Umatilla County Vector District for more information locally 541-567-5201 or www.wuvcd.org