

## Control the elm leaf beetle before they kill shade trees

Do you have elm trees in your yard? Late spring and early summer is time to be on the look out for the elm leaf beetle. Introduced into the eastern United States early in the 19th century, the elm leaf beetle now occurs everywhere elm trees are grown. All elm species are attacked, as are Japanese zelkova.

It is the elm leaf beetle larvae, feeding on the leaves that do the damage, explains Jack DeAngelis, entomology specialist with the Oregon State University (OSU) Extension Service.

As the yellowish-green larvae feed, they remove leaf tissue between the veins. Badly damaged leaves are skeletonized, larvae eating all the tender green tissue and leaving only the harder lignified support structures of the leaf. Infested leaves turn brown and drop prematurely. Defoliated limbs may put out a second flush of growth, but these too may be eaten.

If a tree loses most of its leaves year after year it will eventually die, said DeAngelis.

As a general rule-of-thumb, a deciduous tree can sustain defoliation for about three years in a row, if no other stress factors are affecting it. Beyond this point the tree will begin to die.

The adult beetle is about one-quarter inch long, greenish-yellow with lateral black stripes down the back. Adults emerge twice each year (two generations), once in early summer or late spring and again in late summer to

early fall. Exact timing depends on local conditions.

Adult beetles lay bright yellow eggs in clumps on the underside of host leaves. Grub-like larvae are greenish-yellow with black lateral stripes, much like the adults.

Elm leaf beetle adults spend the winter months in protected places. They may enter structures in the fall much like boxelder bugs do. In the spring, adults fly to elm trees and lay eggs for the first generation. These eggs hatch and the larvae feed as described above. When the larvae reach full size they migrate to the lower parts of the tree, or to the ground below the tree, to pupate.

Transformation to the adult takes on to two weeks. The emerging adults fly back to the trees to lay the second generation eggs.

Most of the time elm leaf beetles are held in check by natural wasp parasites that live in the area. These tiny wasps sting eggs, or pupae, lay their own eggs inside the elm leaf beetle where they develop into fully formed, adult wasps. Overall, wasp parasites are the most effective of the natural control agents.

Despite the best efforts of the wasps, elm leaf beetles occasionally get out of hand and threaten a cherished tree, said DeAngelis.

"In these cases you may need chemical control that involves spraying the leaves with an insecticide to kill feeding larvae," he said. "There are not systemic insecticides for this pest. The biggest obstacle to successful

control is reaching the leaves in tall trees with whatever you decide to spray. It usually makes sense to hire a tree care company to treat tall trees."

One of the least toxic, and most effective, new insecticides for elm leaf beetle is a bacteria called "Bacillus thuringiensis," variety San Diego, sometimes called "BT San Diego" for short, he said. The product name for this BT is "M-ONE."

"Unfortunately, M-ONE is not available in small, homeowner-sized packaging," said DeAngelis. "You probably can locate a tree service company that will treat the trees with VT for you. Be sure to use the 'variety San Diego' of VT because there are other BTs intended for other uses."

Other chemical control options are the insecticides Orthene (Chinese or Siberian elm only), Dursban, Imidan, Mavrik, Talstar and Tempo. Check with your local county office of the OSU Extension Service for detailed information.

"Whatever you decide to do remember that there are two generations of elm leaf beetle each year, so in all likelihood you'll need to treat twice," advised DeAngelis. "And treat them only when larvae are actually found significantly defoliating your elm trees."



Information provided by:  
OSU Extension  
at Warm Springs  
1110 Wasco Street  
553-3238.

### OSU Extension Staff:

<b>Arlene Boileau</b>	<b>4-H &amp; Youth</b>
<b>Bob Pawelek</b>	<b>Livestock</b>
<b>Norma Simpson</b>	<b>Home Economics</b>
<b>Carol Stevens</b>	<b>4-H</b>
<b>Crystal Winishut</b>	<b>4-H Assistant</b>
<b>Tim Wojtusik</b>	<b>Agriculture</b>
<b>Clint Jacks</b>	<b>Staff Chair, Madras</b>

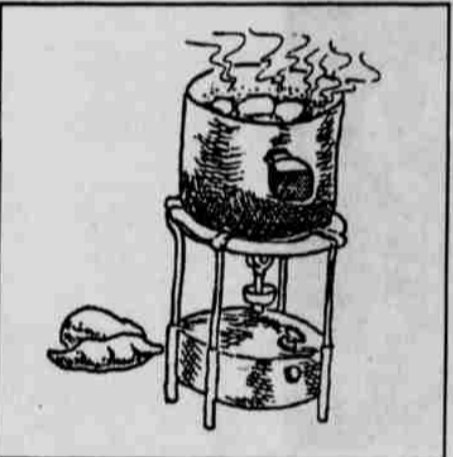
The above individuals are devoted to extending research-based information from Oregon State University to the people of Warm Springs in Agriculture, Home Economics, 4-H Youth, Forestry, Community Development, Energy and Extension Sea Grant programs. Oregon State University, United States Department of Agriculture, Jefferson County and the Confederated Tribes of Warm Springs cooperating. The Extension Service offers its programs and materials equally to all people.

EDUCATION THAT WORKS FOR YOU

## Celebrate "Around the World" week this month

by Norma L. Simpson

Keep in mind, that Warm Springs children and their parents have a treat in store during July 20-21. Carol Allison of the Community



Center has made big plans for learning about many of the countries of the world. It will be filled with arts and crafts in the morning and then a number of us will share the joys of experiences living with different cultures.

On Wednesday, July 20, at 2:30 p.m. in Carol's room, the children will perform a skit based on children's stories from around the world. Then I give them A SHOW & TELL of things from different countries, baskets and cooking equipment, toys and oars, spears and bows.

Then on Thursday, July 21 at 2 p.m. the Community Center staff will model traditional clothing from many countries. We will also have a display for drums and other musical instruments from four or five countries.

Come and join the children to appreciate the life and tools of peoples from Around the World.

## Fathers becoming more active in child rearing

American fathers are taking a more active role in child rearing today than they did several decades ago, according to Sue Doescher, Oregon State University (OSU) Extension child development specialist. There has been a sharp increase in the numbers of fathers who are present during labor and delivery. In 1960, about half of the fathers in families with one or two children never got up at night to attend to the baby, whereas today, almost 90 percent of a comparable sample report participate in this way.

While the fathers of today are more involved in child rearing than their fathers were, participation in routine caregiving, like feeding or changing diapers, is less marked, notes Doescher. Fathers spend time playing with children. Time use studies indicate that while less than a tenth of mother's child care is play, half of fathers' child care time is in play.

Most couples are not dissatisfied with this seemingly unequal distribution of child care

responsibilities. Mothers often have a psychological investment in their roles as caregivers, and feel threatened when fathers invade their domain. And fathers may distance themselves from the less appealing child care tasks by concluding they are "just not as good at changing diapers as their spouses."

Recent research evidence points to the distinctive roles mothers and fathers play in child rearing. In most families, mothers hold the major responsibility for child rearing and adopt a didactic role with their children. They set boundaries, limiting children's access to household objects and space. Mothers manage their children's activities, make appointments, and supervise play with friends. Even when mothers are employed outside the home, they still spend more time helping their children with schoolwork or arts and crafts projects than fathers.

What are fathers doing? Today, fathers are more likely to act as a friend and partner in the child's play, often engaging in

physical and rough-and-tumble activities. Doescher points out that this latter type of play is equally important to children's development as it helps them learn how to regulate their emotions in social interaction with others.

## Try cutting back on caffeine intake

Caffeine as a cause for symptoms of low blood sugar has always been controversial and inconclusive. The Mayo Clinic newsletter has followed up the topic of Caffeine Research a number of times. While it does answer some of the questions about caffeine, it also gives us some things that we can do to be more responsible for the way we use caffeine.

People commonly blame low blood sugar (hypoglycemia) between meals for a cluster of complaints light-headedness, cold sweats, shakiness, headache and irritability.

But true hypoglycemia, in which blood sugar levels approach 40 milligrams per deciliter (mg/dl), typically occurs only in people with diabetes or pancreatic disease. Why, then, do some healthy people have similar, yet less severe, symptoms after eating despite blood sugar levels that remain within the normal range (60 to 110 mg/dl)?

A study in the October 15, 1993 *Annals of Internal Medicine* suggests caffeine may be involved. Eight people consumed caffeine in an amount equal to two to three cups of drip-brewed coffee (400 milligrams). They then described "feeling hypoglycemic" at low, but still normal, blood sugar levels about an hour later.

Caffeine may increase your brain's need for sugar (glucose). Caffeine also decreases the sugar available to your brain by reducing blood flow. Your brain, in turn, interprets the "demand" as an abnormal drop in blood sugar level and triggers symptoms.

More research is needed. But if you feel "hypoglycemic" after drinking lots of coffee or cola, try cutting back.

## Be sure you understand commitment before cosigning a loan

What would you do if a friend or relative asked you to cosign a loan? Before you give your answer, make sure you understand what cosigning involves. Under a recent Federal Trade Commission rule, creditors are required to give you a notice to help explain your obligations. To cosigner's notice says:

You are being asked to guarantee this debt. Think carefully before you do. If the borrower doesn't pay the debt, you will have to. Be sure you can afford to pay if you have to, and that you want to accept this responsibility.

You may have to pay up to the full amount of the debt if the borrower does not pay. You may also have to pay late fees or collection costs, which increase this amount.

The creditor can collect this debt from you without first trying to collect from the borrower. The creditor can use the same collection methods against you that can be used against the borrower, such as suing you, garnishing your wages, etc. If this debt is ever in default, that fact may become a part of your credit record.

This notice is no the contract that makes you liable for the debt.

Some studies of certain types of lenders show that for cosigned loans that go into default, as many as three out of four cosigners

are asked to repay the loan. That statistic should not surprise you. When you are asked to cosign, you are being asked to take a risk that a professional lender will not take. The lender would not require a cosigner if the borrower met the lender's criteria for making a loan.

In most states, if you do cosign and your friend or relative misses a payment, the lender can collect from you immediately without pursuing the borrower first. And the amount you owe may be increased-by late charges or by attorneys' fees-if the lender decides to sue to collect. If the lender wins the case, he or she may be able to take your wages and property.

Despite the risks, there may be times when you decide to cosign. Perhaps your son or daughter needs a first loan, or a close friend needs help. Here are a few things to consider before you cosign.

Be sure you can afford to pay the loan. If you are asked to pay and cannot, you could be sued or your credit rating could be damaged.

Before you cosign a loan, consider that even if you are not asked to repay the debt, your liability for this loan may keep you from getting other credit you may want.

Before you pledge property, such as your

automobile or furniture, to secure the loan, make sure you understand the consequences. If the borrower defaults, you could lose these possessions.

You may want to ask the lender to calculate the specific amount of money you might owe. The lender does not have to do this, but some will if asked. You also may be able to negotiate the specific terms of your obligation. For example, you might want to have your liability limited to paying the principal balance on the loan, but not late charges, court costs, or attorney's fees. In this case, ask the lender to include a statement in the contract like this: "The cosigner will be responsible only for the principal balance on this loan at the time of default."

You may want to ask the lender to agree in

writing, to notify you if the borrower misses a payment. In this way, you will have time to deal with the problem or make back payments without having to repay the whole amount immediately.

Make sure you get copies of all important papers, such as the loan contract, the Truth-in-Lending Disclosure Statement, and any warranties if you are cosigning for a purchase. You may need these if there is a dispute between the borrower and the seller. Because the lender is not required to give you these papers, you may have to get copies from the borrower.

Check your state law. Some states have laws giving you additional rights as a cosigner.

## Harvest early potatoes when blossoms show

There's nothing more heavenly than a plateful of young, succulent, freshly dug early potatoes. If you planted potatoes in March or April, you are in luck-it's almost time to dig for the baby tubers. Watch for blossoms to appear on your potato plants, then dig out small potatoes from a plant or two at a time, as your appetite demands, recommends Ray McNeelan, Oregon State University (OSU) Extension home gardening agent. A few (two or three) tubers from each hill will not appreciably decrease your eventual harvest.

As vines mature further, they will die back, and mature potatoes can then be dug. To five potatoes a tough skin that stores well, allow the soil to dry out completely before harvest. If rain keeps the ground wet, cut the vines off when they begin to die down.

A second crop of potatoes can be planted in June and harvested in the fall in the warmer areas of the state including western Oregon and the warmer areas of southern Oregon.

Remember to sign up for  
August 10-14, 1994  
4-H Wilderness  
Enrichment Camp  
before July 15

## Stockman's Roundup: Hantavirus and Deer Mice



Bob Pawelek  
OSU Extension Agent  
Livestock and Range

Hantavirus (Muerto Canyon virus) and Deer Mice

In the western United States there is a continuing high level of interest concerning the usually lethal disease now known as Hantavirus pulmonary syndrome (HPS). The disease is caused by one of the hantaviruses presently called Muerto Canyon virus. This brief outline will answer most of your questions. It will also inform you of how Nevada ranching families, ranch employees, and rural residents can reduce their exposure to Muerto Canyon virus.

I. What is known about the virus and the disease.

A. There is at least 5 distinct viruses in the Hantavirus group. The severity of the disease caused by each virus in the group varies. B. Hantaviruses have been around for centuries. US military personnel were diagnosed with a disease caused by Hantavirus during the Korean war. C. Rodents are the main reservoir of infection. 1) In the western U.S. the virus principally carried by a common rodent, the deer mouse. 2) Other rodent species may carry the virus to a lesser extent. D. The

source of the virus is the carcasses, feces, and urine of deer mice. E. Transmission is thought to be airborne by inhalation of virus particles and through direct contact with infected material. Human infection with related hantaviruses, as a result of a rodent bite, has been reported in other parts of the world. F. Human to human transmission is not thought to occur. G. Cats and dogs are not known to be reservoir hosts of the virus. However, they may bring infected rodents into contact with human. H. The incubation period varies but is thought to be 2 to 4 weeks. I. Symptoms begin with flu-like signs and progress rapidly to acute respiratory distress. J. Once symptoms develop there is a good chance the patient will die from the disease. K. There is no vaccine to prevent the disease. L. Cases of the disease have been associated with the following situations. 1) Cleaning barns and outbuildings. 2) Disturbing rodent infested areas while hiking or camping. 3) Inhabiting a building with indoor rodent populations. 4) Planting or harvesting field crops. 5) Occupying previously vacant cabins or other dwellings.

II. Characteristics of the deer mouse.

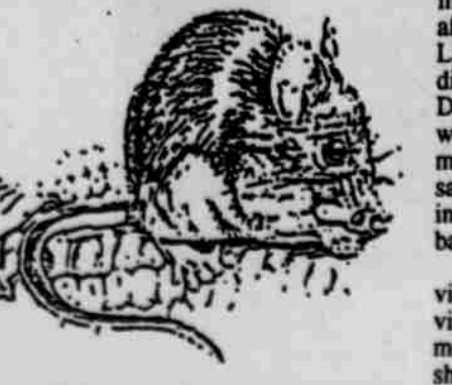
A. Primarily a seed eater. Also eat fruit, insects and green vegetation. B. Deer mice are active mostly at night. C. Nest consists of

twigs, grass roots, and fibrous material found in underground cavities, hollow logs, unoccupied buildings, hay stacks, wood piles, abandoned or infrequently used vehicles, and electrical switch boxes.

III. How to reduce exposure to Hantavirus.

A. Avoid rodent burrows, do not disrupt soil around these areas. B. Exclude rodents from your home. Seal all openings 1/4" or larger. C. Air out closed buildings that may have rodents for at least 30 minutes before entering. D. Avoid sweeping or vacuuming rodent fecal material. Wet the fecal material with a fresh bleach or Lysol solution (3 tablespoons to a gallon of water). Wipe up the damp material and dispose of it in a plastic bag. Burn or bury the bag. Always wear rubber gloves and a NIOSH approved High Efficiency Particulate Air (HEPA) respirator. E. Clean counter tops, floors, cupboards, etc., contaminated by rodents with a fresh bleach or Lysol solution. F. Steam clean contaminated carpets with a Lysol solution rather than sweeping or vacuuming. G. Trap deer mice with a snap trap baited with chunky style peanut butter. Wear rubber gloves and a HEPA model mask when handling dead mice. H. Wet down the rodent with a disinfectant solution before removing it from the trap. Dispose of the rodent by the inverted plastic bag method. Disinfect trap after use by submerging in a fresh bleach or Lysol solution. I. Wash the gloves with a disinfectant solution while still wearing them. Discard the gloves and wash hands and arms with a disinfectant soap. J. Keep food in mouse-proof containers and maintain good sanitary practices. K. Ranchers may need to institute a rodent control program around barns, grain bins, and shops.

Summary: Hantavirus (Muerto Canyon virus) has been identified in Nevada. The virus is carried by rodent, primarily the deer mouse. The disease is usually fatal. Ranchers should understand how to reduce the Muerto Canyon virus exposure risk factors. If rural residents develop flu symptoms, especially if they have had significant exposure to similar



Deer mice have a white belly extending to tip of tail, legs and feet hairy.

risk factors, they should contact a doctor immediately. Inform the physician that they may have encountered risk factors suggestive of exposure to Muerto Canyon virus. Call your county extension office or county health nurse for a detailed discussion of risk reduction.

\*NIOAH Approved HEPA Respirators

The most stringent air purifying particulate respirator approval designation available from the National Institute for Occupational Safety and Health (NIOSH). Product manufacturer's package labels should designate the respirator as a High Efficiency particulate Air or HEPA respirator and list a NIOSH approval number. The Center for Disease Control (CDC) has designated a HEPA particulate respirator as the minimum acceptable level of protection suitable for use against the Hantavirus (Muerto Canyon Virus). HEPA respirators are available in: 1) Single and multiple use disposable mask models from a limited number of manufacturers, 2) half mask or full face cartridge models with replaceable HEPA filter cartridges, and 3) Powered Air Purifying Respirators (PAPR), also with replaceable HEPA filter cartridges. HEPA respirators can be purchased from occupational safety and health equipment and supply vendors.

Individuals using air purifying respirators should always perform a "fit check" with each use of the respirator. A "fit check" assures the user that the mask is properly in place on the wearer's face and will provide the desired level of protection. A "fit check" is accomplished by applying either positive pressure (gently exhaling) or negative

pressure (attempting to inhale) into the mask after blocking either the exhalation valve (if one exists) or the filter surface and checking for leaks by feeling the air movement on the skin's surface beneath the mask's sealing surfaces. The use of negative pressure should cause the mask to seal to the wearer's face and remain so until pressure is released. Should the mask release from the wearer's face before, the fit is not satisfactory. Adjustments should be made to the tension straps, or a different sized mask should be tried to obtain a proper fit. Masks not capable of being "fit checked" should be "fit tested" before each use. A "fit test" involves a much more detailed procedure. Currently only one manufacturer is known to produce a disposable HEPA respirator that can be "fit checked" by it's users. It requires the one-time purchase of an accessory cup that effectively covers the filter surface when performing a negative pressure "fit check".

Caution: The use of negative pressure air purifying respiratory protective equipment can aggravate certain medical conditions (high blood pressure, asthma, some heart conditions, etc.) due to the increased breathing workload required from their use. Consult your physician before using such equipment for more than short periods of time or for performing strenuous work.

If you have any questions about respirator selection or use contact your nearest state or federal Occupational Safety and Health Administration (OSHA) office, your State Industrial Insurance System (SIIS) Loss Control representative or a qualified Industrial Hygienist or Safety Professional.

## Publications available at Extension office

The OSU/Warm Springs Extension Service still has copies of the Blue Kite-covered Spring 1994 catalog available. And this week the first copy of the Yellow Sun-covered Summer Catalog arrived from the Consumer Information Center in Pueblo, Colorado.

Many times you will find copies of booklets referred to on this page, because the information is useful and often free. Occasionally I will order

these when I hear people express interest in publications about new and used cars, or about businesses.

If you are interested in starting a new business, The Small Business Handbook: Laws, Regulations and Technical Assistance Service could provide lots of information to you. And this is a free 90 page publication. The contents covers every requirement applicable to most employers.