

# Foresters keep an eye on pine beetles



**BEETLE INFESTED TREE**—Although pine beetles have not as yet affected many of the trees on the Warm Springs reservation there is always a threat. This is one tree the beetles have killed. Spillyay Tymoo photo by Shewczyk

Trees, like people, are living entities and sometimes have to struggle for life. Many pine trees in central Oregon are having to battle a small insect which burrows beneath the bark, eventually cutting off the tree's water supply.

The mountain pine beetle is threat to the lodgepole pine while the western pine beetle can badly injure or kill a ponderosa pine tree.

Groups of reddish-brown trees among the green of the forest are becoming visible in many parts of central Oregon. The Warm Springs area hasn't been affected to any great degree by the beetle, as yet. In parts of Central Oregon, though, the population of the beetle has increased to epidemic proportions.

The western pine beetle is the greatest threat to the forests of the Warm Springs Reservation. The value of ponderosa pine is great enough to warrant keeping an eye on this pine beetle. For years, salvage operations have cut out trees that have been affected by the beetle, keeping the population of the pine beetle at controllable proportions.

The last major outbreak of the western pine beetle was in 1977, according to Warm Springs forester Larry Hanson. "In the 20's or 30's an outbreak resulted in the salvaging of 3 million board-feet of timber," Hanson says.

Pine beetles have a one-year life cycle. According to Hanson

the beetle burrows into the cambium layer of the tree. "This is the thin layer of live tissue beneath the bark," says Hanson. The adult beetle moves down the tree laying eggs along the way. The eggs hatch into hungry larvae, or grubs, feeding on the inner bark in a horizontal direction which eventually encircles the tree.



The pine beetle burrows beneath the bark of a tree.

After maturity the following spring, the beetles bore their way out of the trees and fly off to attack new ones, leaving the tree with an inability to conduct water. The trees do not turn to a red color until the spring or summer after attack. By that time the tree is already dead.

Healthy trees are usually not victims of the beetle, Hanson pointed out. A healthy tree that is not under stress in its struggle

for existence will produce pitch which pauses the beetle out.

Stress in a tree is created when the tree has to fight for water. The pine beetle is found in forest fringes such as the Tenino Bench area, the Metolius Bench area, around Potter's Pond and at south Sidwaller Butte. These areas receive a limited amount of moisture. "Summer rains affect the fringe areas and has a large effect," Hanson says. He also mentioned, "The only time there is a major outbreak is in drought years."

Annual air flights over the state by the forest service and the Oregon Department of Forestry pinpoint sites where the beetle is abundant. Patches of red trees are very obvious from the air.

The Continuing Forest Inventory, conducted by the forest service along with foresters working in the woods, keeps tabs on the beetle level in the Warm Springs' forests. As long as the beetle population is within natural, balanced proportions there is nothing to worry about. The population of the beetle, like other living creatures, "is always in flux," Hanson commented. Environmental conditions may change causing a population decline or increase. Woodpeckers are the greatest natural control over the pine beetle. As long as everything is in balance, with moisture and natural predators, the beetle will not go into epidemic proportions.

## Pi-Ume-Sha parade results

### Men's Traditional Dress:

1. Nick Kalama
2. Tom BeGay

### Women's Traditional Dress

1. Sarah Quaepts
2. Geraldine Jim

### Boy's Traditional Dress

1. Max Jim
2. Joe McKnight

### Girl's Traditional Dress

1. Merle Ann Kirk
2. Ramona Colwash

### Best Dressed Male on Horseback

1. Wilson Wewa, Jr.
2. Flint Scott

### Best Dressed Female on Horseback

1. Louise Jackson
2. Leontyne Tanewasha

### Oldest Traditional Dress

Susan Moses

### Floats

1. Celilo Wyam-Wilbur Johnson
2. Frazier Valley
3. Siletz Group
4. Scott Family

17 children paraded on foot.

## For Sale

For sale—1977 Camaro 305 V8, 3 speed, power steering power brakes, AM-8track, gets 25 miles per gallon. Runs good, looks good. \$3,800—or best offer. Call 553-1412 after 3:00 p.m.

## Good health demands constant attention

Proper exercise and a balanced diet is the key to a healthy body. These are the two essential ingredients to maintaining physical fitness according to visiting lecturer Dr. Vincent Quas of the Body Accounting clinic in Bend, Oregon. Dr. Quas is also an Orthodontist in that city.

Dr. Quas has lectured at the Community Center in Warm Springs on three separate occasions in an effort to inform interested persons of the importance of physical fitness. Along with conducting water displacement tests and sub-max stress tests to measure fat-muscle proportion and maximum heart rate efficiency, respectively, Quas offers advice.

According to Quas "there is no magic percentage of fat" that a body should have on it. He states that 22% fat on one person's body might be as good as 10% on another. The average percentage of fat on woman is in good physical shape is 22 percent and 15 percent for men.

A person who maintains a standard weight for his age and height does not necessarily have proper fat-muscle proportions. To obtain proper "nothing takes the place of exercise," Quas stated, "along with modifying food intake."

Getting proper exercise is not an easy task. For exercise to be of value the heart must reach a training rate. (To determine this, subtract your age from 220 and then take a 60, 70 or 80 percent of that

depending on individual goals and conditioning level.) a rate below this when exercising is as inefficient as a rate above the training rate.

A balanced diet is important to everyone. It should contain approximately 20 percent protein, 15 percent fat and 65 percent complex carbohydrates, says Quas. He states, "People should get high-quality protein with the least amount of calories and the least amount of fat."

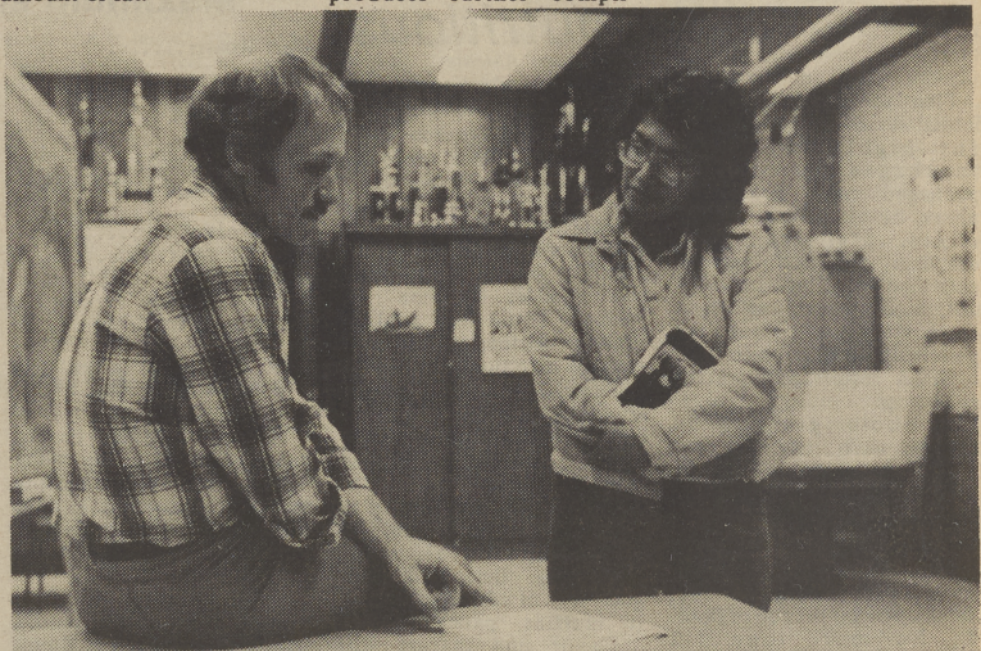
An example of food with little value is "white stuff" (as Quas calls it) such as white sugar and white flour. Excess calcium is produced from the intake of these foods, he says. The calcium enters the blood and much of it is stored in the joints and possibly in the gall bladder.

Deposits will eventually form on the arteries increasing the capability of arteries to collect cholesterol which produces further compli-

cations. Quas says, "this all starts when we are very young."

The "white stuff," Quas says, enters the body with nothing of value to the body. So the body takes the nutrients it needs from the body's muscle, making that food of no value what-so-ever.

Exercise and diet both demand constant attention, Quas emphasized. "There is no instant gratification in health. It's a slow process."



**FITNESS QUESTIONS ANSWERED**—Dr. Quas goes over the results of Madeline Queahpama's test scores with her. Madeline along with others took a water displacement test and a sub-max test in March to find out just how physically fit they really are.

Spillyay Tymoo photo by Shewczyk