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The Oregon State University Extension Service staff is devoted to extending research-based information from OSU to the people of Warm Springs in agriculture, home economics, 4-H youth, forestry, community development, energy and extension sea grant program with OSU, 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. World Wide Web Address change for Warm Springs Extension: <http://www.orst.edu/dept/wsext>

The Clover speaks

by Sue Ryan

The 4-H program had a quiet and enjoyable time during our three day Camp Counselor training at HeHe Longhouse last week. We want to thank all of the presenters who came up to give us training - especially Sue Matters from Early Childhood Education for certifying us in First Aid and CPR. This training was to help prepare us for the 1997 Culture Camp at Peter's Pasture that will take place in July. We are still taking registrations for this camp & you can sign-up at the 4-H office. I will also be setting up a registration table at the Community Center & the Pi-Ume-Sha grounds next week.

One of the handouts we covered during the Camp Counselor training was a Shared Values statement. This statement epitomizes our view & purpose at camp. I thought it was worthwhile enough to share here.

We believe campers always come first and their welfare is our #1 responsibility. Everything we must do is planned with them in mind.

We believe only a satisfied camper can have happy camp memories.

We believe in *cherishing our campers*. We don't want our campers to be merely satisfied, we want them to be "raving fans."

We believe those who are best trained will be the most successful.

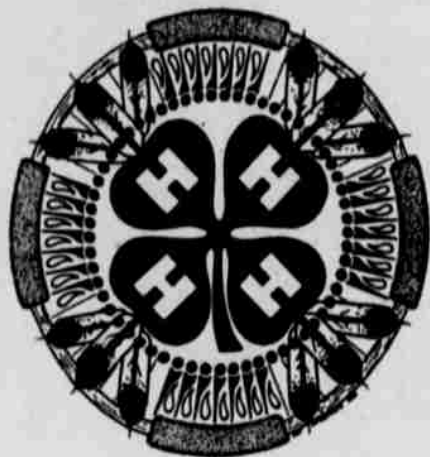
We believe in developing an expectation of excellence from our camp staff. We will make available to every staff member the necessary training to achieve that excellence, if the staff person has the ability and desire.

We believe in a camp environment that enables a system of shared values to direct a campers behavior. We want camp staff who can instinctively act the right way.

We believe in leading, not managing.

Camp Staff should display energy and have the ability to energize others.

We believe in the team approach to getting the job done.



We believe in an open, trusting sharing of ideas and information about the camp, where every staff person's idea is considered important, and with everyone displaying a willingness to listen, debate, and then take the best ideas and get on with it.

We believe a camp staff that is informed, involved and excited about their "jobs" will be a productive camp staff.

We believe in developing a relationship with each staff person based on mutual respect and trust, striving at all times to deal with everyone *fairly, consistently, and with integrity*.

We believe every staff person must "walk the talk" when it comes to our shared values.

We believe in having a *passion for excellence*.

Natural Resource Notables

by Bodie Shaw

Organic Gardening — Natural Insecticides

Despite our best efforts, nonchemical methods sometimes fail to prevent excessive insect damage in the garden. At such times, the use of insecticides may be the only alternative left to save the crop.

When damage becomes great enough to warrant emergency measures, organic gardeners often will want to use natural insecticides and various homemade botanical sprays, instead of synthetic organic chemicals.

The insecticide used should have low toxicity to man and to other warm-blooded animals. Insecticides should be used only when needed and in strict accordance with label directions. A good understanding of insecticides allows these materials to be used effectively without harming you or the environment.

The following information may help local gardeners select a natural insecticide for their specific needs.

Pyrethrum — Botanical insecticide. This slightly toxic insecticide is derived from the flowers of a species of chrysanthemum imported mainly from Kenya and Ecuador. The material causes rapid paralysis of most insects, but the insects usually recover unless the pyrethrum is combined with a synergist or other poison. Pyrethrum mixed with synergists such as piperonyl butoxide or piperonyl cyclonene, which increase toxicity and produce longer residual action is used extensively in space sprays, household sprays, crop sprays and dusts. This chemical is registered for use on most vegetables and fruits at any time during the growing season.

Nicotine — Botanical insecticide. Pure nicotine is a tobacco extract highly toxic to warm-blooded animals. The insecticide usually is marketed as a 40% liquid concentrate of nicotine sulfate, which is diluted in water and applied as a spray. Dusts can irritate the skin and are not normally available for garden use. Nicotine is used primarily for piercing-sucking insects such as aphids, whiteflies, leafhoppers and thrips. Nicotine is more effective when applied during warm weather. It degrades quickly, so can be used on many food plants nearing harvest. It is registered for use on a wide range of vegetable and fruit crops.

Sabadilla — Botanical insecticide. Sabadilla is obtained from the seeds of a lily-like plant and acts as both a contact and stomach poison for insects. It is not particularly toxic to mammals, but does cause irritation of the eyes and respiratory tract. A mask should be worn when working with this insecticide. This material deteriorates when rapidly when exposed to light and can be used safely on food crops shortly before harvest. Sabadilla generally is used as a 5 to 20% dust or as a spray.

Rotenone — Botanical insecticide. Rote-

none is extracted from the roots of derris plants in Asia and cube plants in South America. This general garden insecticide is harmless to plants, highly toxic to fish and many insects, moderately toxic to mammals, and leaves no harmful residue on vegetable crops. It acts as both a contact and stomach poison to insects. It is slow acting and, in the presence of sun and air, its effectiveness is lost within a week after application. Wear a mask during application because rotenone can irritate the respiratory tract. Rotenone dusts and sprays have been used for years to control aphids, certain beetles and caterpillars on plants, as well as fleas and lice on animals.

Other Pesticides
Gardeners have been using soap to control insects since the early 1800s. During the first half of the 19th century, whale oil soap and, more commonly, fish oil soaps were an important part of insect control. Recent tests indicate *Ivory Liquid dishwashing detergent*, diluted with water to a 1 to 2% solution, provides the most consistent control and is easy to mix. There are also soaps available that are specifically formulated to control insects on plants. Thorough coverage of the plant and repeated applications may be necessary to bring insect populations under control. High rates of soaps and detergents may damage some varieties of plants. The most effective soaps have carbon chains of C-12 or C-18. Laurate (C-12) is the main component of most dishwashing liquids and various other products in common usage. The richest natural source of this is coconut oil.

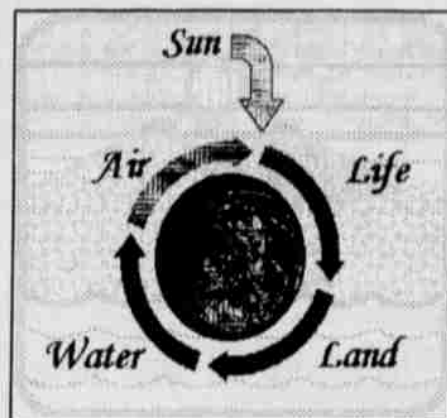
Organic gardeners have been using a spray mixture containing onions, garlic and pepper mixed together to control insects for many years. Recent scientific research indicates the use of the combination of these materials has been erratic and, in many cases, ineffective for insect control. Sprays of food-derived substances do not appear to be good choices as a pesticide. However, some success may be achieved with them, but is likely to be sporadic. Spraying several times a week might help to bring infestations under control. Control with one application should not be expected.

Safe Use of Pesticides
When it is necessary to use insecticides to protect the garden, use them wisely and safely. The following tips will help you make better use of insecticides.

*Inspect the entire garden at least weekly to monitor insect numbers and activity. Pay particular attention to underside of leaves where mites, whiteflies, aphids and insect eggs occur. If treatments are applied when an infestation first starts, insect numbers can be maintained at lower levels much more easily, and with smaller amounts of chemicals.

*Apply insecticides to all plants surfaces so an insect anywhere on the plant will be exposed to a lethal amount of the chemical.

Do not apply insecticides to wilted plants or during the hottest part of the day. Apply dusts only when the wind is calm and plants are dry. Sprays should be applied when the



wind is no more than 5 to 10 miles per hour. Retreatment may be necessary after a rain.

*Apply insecticides only at recommended dosages. Increased amounts can be dangerous, cause plant damage and leave harmful residues without improving insect control.

*The length of effective control with insecticides varies widely. The longevity of toxic properties varies primarily with the product, formulation, water, pH and environmental conditions. Temperature, humidity, wind and sunlight affect insecticides. The greater the extremes, the sooner the insecticides are detoxified.

*The time interval required by the Environmental Protection Agency between treating a crop and harvesting that crop varies with the insecticide and the crop. This information is printed on the pesticide label to ensure that any residues will be within established tolerances at harvest time.

*Always read and follow mixing and application instructions on the insecticide label for safe and effective insect control.

*Some synthetic organic materials are actually less toxic and more efficient than some natural insecticides. Because a material is a natural pesticide, it does not necessarily follow that it is not toxic to man or harmful to the environment if improperly used.

In most situations it is helpful to use several control techniques to reduce insect pest populations to low enough levels that insecticides are not required, or are needed only sparingly. With reduced insecticide use, biological control agents can become more effective, insecticide costs will be saved, and you will have the satisfaction of knowing that few, if any, poisons were applied to edible crops. If you have any questions or concerns about organic pest control, please call our office.

Pressure cookers need to be tested

by Norma L. Simpson, OSU/WS Extension Home Economics Agent

If you have a pressure canner with a Dial Gauge on the lid, you will be smart to check the accuracy of the dial before you can salmon, meat, poultry, vegetables or salsas. These foods are low-acid foods that need to be "pressure canned" to safely preserve the food, killing any bacteria or spores that may be in the jar.

The OSU/Warm Springs office will test your Gauge for free, and at the same time give you fact sheets about ingredients and use of the pressure cooker.

If the dial gauge is off more than 1 pound of pressure, the pressure canned product will not be safe to eat. In canning, both the amount of pressure and the length of time canned at that pressure are important to destroy the germs.

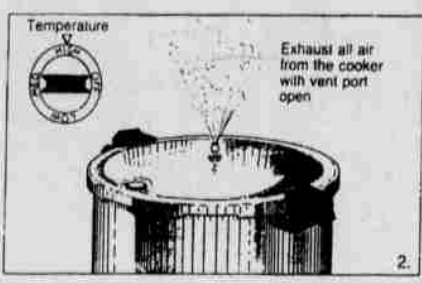
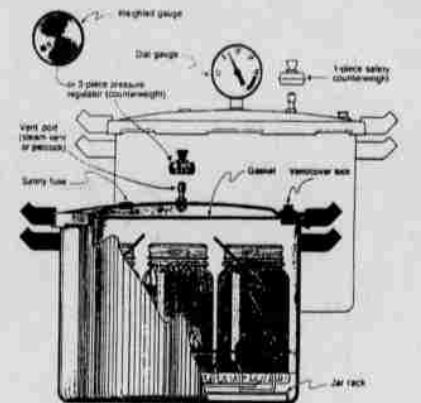
Clostridium Botulinum is the bacteria that grows in sealed jars unless the spores and bacteria have been destroyed with heat. To reach 240 degrees F. in the center of the jar, you must use a pressure canner. You can not reach that temperature in the water bath technique. The pressure canner must be used for low-acid foods to prevent the poison of botulism from spoiling the food.

Three serious errors in temperatures obtained in pressure canners occur because: 1) If the gauge has not been tested for a long time, the gauge may be incorrect. That is why the gauge should be tested each year for safety.

It is tested at 5 pounds pressure, 10 pounds pressure and 15 pounds of pressure. If the gauge is off at each measurement, you may need to purchase a new gauge. You can buy some dials and other parts at Western Auto Store in Madras and at Masterson-St. Clair Hardware in Bend.

2) Internal temperatures are lower at higher altitudes. To correct this error, canners must be operated at the increased pressures specified in canning instructions. Most canning done on the Reservation needs to be adjusted to 3,000 feet elevation. For salmon that means to **pressure cook with a weighted gauge at 15 pounds pressure. For a Pressure Cooker with a dial, use 12 pounds pressure at the 2,000-4,000 elevation.**

3) Air trapped in a canner will lower the temperature obtained at 5, 10 or 15 pounds of pressure and results in underprocessing. The highest volume of air trapped in a canner occurs in processing raw-packed foods in dial-gauge canners. These canners do not vent air during processing. To be safe, exhaust all air from all types of pressure canners by venting for 10 minutes before they are pressurized as seen in the drawing 2 below.



Don't forget to sign up for Culture Camp, Session 1 is July 7th-13th (2nd-5th graders) Session 2 is July 14-20th (6th-9th graders)

Easy to follow recipes for summer barbecues

Barbecued Chicken

Even barbecued chicken can get light and lean, this finger-licking-good version is oil-free and packed with flavor! Health check: Vinegar leads zip without adding salt, skinless chicken lowers fat content and its only 146 calories per serving. Preparation time is 10 minutes and cooking time is 15 to 20 minutes.

4 skinless boneless chicken (breast halves- 4 ounces each)

For the sauce:

1/4 cup reduced-sodium ketchup

3 tablespoons ready-made white horseradish

2 teaspoons firmly packed dark brown sugar

1 clove garlic, minced

1/8 teaspoon dried thyme

1/4 teaspoon black pepper

Step 1: Preheat broiler, heat a charcoal grill until coals form white ash, or preheat a gas grill to medium.

Step 2: To prepare sauce, in a small saucepan, combine ketchup, vinegar, horseradish, brown sugar, garlic and thyme. Mix well. Bring to a boil over medium-low heat. Cook, stirring frequently, until thickened, about 5 minutes. Remove from heat; stir in pepper.

Step 3: Brush tops of chicken pieces lightly with sauce. Place chicken, sauce-side down, on a foil-lined broiler pan or grill rack. Brush other sides lightly with sauce.

Step 4: Broil or grill 3 inches from heat, basting with remaining sauce and turning until no longer pink in center, about 5 to 7 minutes per side. Let chicken stand for 5 minutes before serving.

SHORT CUT

When time is short, omit the sauce. Instead, use 1/2 cup of ready-made reduced-sodium barbecue sauce mixed with a little cider vinegar, or red-white vinegar, and white horseradish. Proceed as directed. Serves 4.

Per serving: Calories 146 (9% from fat), Carbohydrates 5 g, Protein 26 g, Sodium 188 mg, Fat 1 g, Cholesterol 66 mg.

Cook's Tips: To prevent foods from sticking to the grill, scrub the grill rack and spray it with vegetable cooking spray. A special wire brush works well for scrubbing; it can be found at supermarkets or hardware shops.

Chicken must be seared over a hot grill before turning or the skin will stick to the grill. Turn several times throughout cooking and baste with each turn.

While cooking on a grill, use long-handled tongs to turn the chicken pieces. A fork would pierce the meat and allow the flavorful juices to escape.

Sunny Fruit Fiesta

Treat yourself to a delightful mixture of fresh fruit and juices. It's as light and easy as a fruit in the sun.

Health check: This is a cholesterol-free recipe. Melon, especially cantaloupe, is high in vitamin A. Citrus juice adds a shot of vitamin C.

Preparation time: 20 minutes plus chilling. Serves 6.

1 cantaloupe melon, halved and seeded

1/2 honeydew melon, seeded

1/4 cup superfine or granulated sugar

1/4 cup fresh lime juice

2 tablespoons fresh lemon juice

1 tablespoon orange-flavored liqueur (optional)

1 1/2 teaspoons grated lime peel
1 cup sliced fresh strawberries
1 cup black or red seedless grapes
Step 1: Using a melon baller, scoop flesh from cantaloupe and honeydew into balls; set aside.

Step 2: In a large glass or ceramic bowl, combine the sugar, lime juice, lemon juice, orange liqueur, and lime peel. Stir well to dissolve sugar. Add the cantaloupe and honeydew balls, strawberries and grapes. Toss gently to combine.

Step 3: Cover the bowl with plastic wrap and refrigerate for at least 1 hour to blend flavors, stirring once or twice.

Step 4: Spoon the fruit mixture into serving bowls or hollowed out melon halves, dividing evenly. Serve immediately.

Serves 6. Per serving: Calories 105 (3% from fat), Carbohydrates 27 g, Protein 1 g, Sodium 19 mg, Fat 1 g, Cholesterol 0 g.

Variation: For a tropical fruit version, substitute kiwi slices, pineapple chunks, papaya slices, or mango cubes for some of the melon balls. Add a little grated fresh ginger or ground ginger. A dash of coconut extract would also make an intriguing addition. Try serving this version in a hollowed-out pineapple half.

Cook's tips: A perfectly ripe cantaloupe will have a sweet, fresh fragrance. It should feel heavy for its size and give slightly at both ends when gently pressed. If the cantaloupe is soft, yellowing or feels wet at the stem, pass it by. To ripen a hard cantaloupe, store it in a warm place for several days, away from sunlight. Once it is ripe, refrigerate and use within a week.

JULY

Garden hints from your OSU Extension Agent

- Control hollyhock rust by sanitation, picking affected leaves, and spraying with wettable sulfur or Daconil.
- Early morning is the best time to water vegetable and flower gardens. Water deeply and infrequently.
- Hanging baskets of flowers or vegetable plantings need careful attention to watering and feeding during extended periods of hot weather.
- Watch for cutworm damage in garden. (In July, climbing cutworms become a problem and large portions of foliage will begin to disappear on established plants.) Dust seedlings or remove cutworms by hand.
- Mid-summer plantings of beets, bush beans, carrots, cauliflower, broccoli, lettuce, kale will provide fall and winter crops.
- Spray this month to control apple maggot, or place traps to catch adult flies. You can use pheromone traps to monitor presence of pests.
- July 10: spray filbert trees for filbertworm.
- July 10-15: spray peach and prune trees for root borers.
- July 17-23: third spray for codling moth and scab in apple and pear trees.
- Cover blueberry bushes with netting to keep birds from eating all the crop.
- Stake tomatoes, watch for blight (prune for air circulation, pick off affected leaves, treat with fungicide).
- First planting of Chinese cabbage, kohlrabi, rutabagas on Oregon coast.
- Spray for scale insects on camellias, holly, maple trees.
- Spray for root weevil adults on rhododendrons showing fresh evidence of feeding (notching).
- Check leafy vegetables for caterpillars. Control with *Bacillus thuringiensis* or Sevin.
- Mound soil up around base of potatoes, gather and eat a few "new" potatoes from each hill.
- Weed and fertilize rhubarb and asparagus beds, water deeply to develop crowns for next year. A mulch of compost or rotted cow manure works well.
- Mulch to conserve soil moisture with paper, plastic, sawdust, etc.
- Watch for signs of spider mites on arborvitae hedges (dusty-looking foliage, loss of color, presence of tiny mites). Wash infested areas with water or spray with appropriate pesticides.
- Dig spring bulbs when tops have died down, divide and store or replant.
- Lawns need at least 1 inch of water per week this month.
- Stake tall-growing flowering plants such as delphinium, hollyhocks, and lupine.
- Aerate lawns for more effective water and fertilizer usage.
- End of month: prune raspberries, boysenberries, other canberries after harvest.
- East of the Cascades:* spray for corn earworm as silking begins. Protect bees.

