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# *Oregon 4-H*

## *Outdoor Cookery IV*



4-H 9324

*Revised July 1989*



OREGON STATE UNIVERSITY EXTENSION SERVICE

## OUTDOOR COOKERY IV

By the time you have reached this 4-H project level, you should be a skilled out-of-doors cook. You have had opportunities for learning many different methods of outdoor cookery:

Green stick  
Foil  
Tin Can  
Bean Hole

Reflector oven  
Skillet  
Barbecue

This project is planned so you can continue to practice different camp cookery methods. Your emphasis may be either back yard or camp cookery, or a combination of the two.

With the help of your 4-H leader, set some goals and plan a calendar of activities. Some ideas for club activities are listed as a guide. You have had experience in planning 4-H programs and your club knows best your interests and needs.

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## BACK YARD COOKERY

Your back yard is an excellent place to entertain a large group. Perhaps you will want to plan a party that does not take a lot of cooking to start with. Later you can plan a patio party in which all of the food is cooked out-of-doors.

### Back Yard Equipment

There are many types of back yard equipment that you could make including chairs, tables, camp stools, a barbecue, and play equipment. Lumber yards and magazines are good sources for outdoor furniture plans. For additional ideas, talk with friends and neighbors.

### Back Yard Cookery Equipment

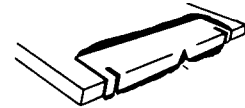
Barbecue grills can be made from materials found at junk yards and second-hand stores. Old iron pots or the insides of automatic washers with some legs welded to them make good ones, too.

You can make a rack for holding kabobs on a grill. All you need is a sheet of heavy aluminum (plain or embossed). It is available at hardware stores and can be cut with heavy-duty scissors or metal shears.

Cut two pieces 3" x 28". At the center of each piece, cut out a "V" section about 1/2" deep. One inch from the ends, cut 1/8" slits halfway up on one and halfway down on the other.



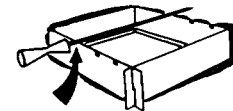
Lay each piece on a sharp edged table so that the "V" sticks over the edge and bend the 1/2" edge down by hammering down over the edge.



Now bend each piece 90 degrees and attach together at the slits.



While the frame is assembled, mark off the notches by laying a skewer across the top. Keep them at least 2 1/2" apart. Cut the sides of the notches and bend inside. To eliminate sharp edges, sand with fine sandpaper.



### Food for Fitness Food Groups

It's important to remember good nutrition in outdoor cookery meals. The food for fitness food groups and daily serving requirements follow:

Milk, cheese	3 or more servings
Vegetables, Fruits	4 or more servings
Meat, Fish, Eggs	2 or more servings
Bread, Cereals	4 or more servings

## Meal Planning

When planning a meal, consider the food groups and decide on your main dish first. Then, plan the rest of the meal around it. A "pot" is fine for an outdoor meal since it takes fewer cooking utensils. Most one-dish meals combine meat and vegetables and with the addition of a salad, a dessert, and beverage, the meal is complete. You may also want to serve rolls or bread. Careful planning for meals is important whether cold or hot dishes are served.

## Plan Outdoor Meals

Study the four Food Groups and use them to plan a day's menu including an outdoor meal. Prepare the outdoor meal and serve it to your family.

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BREAKFAST	LUNCH	DINNER
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Plan an outdoor meal for ten or more people.

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MENU

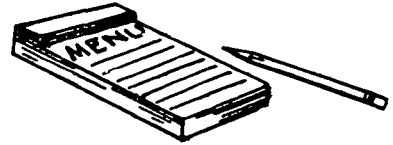
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Groceries and Amounts Needed	Jobs to be Done	Tools and Equipment Needed
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### How do You Rate as a Menu Planner?



- \_\_\_\_\_ Did you consider the food groups?
- \_\_\_\_\_ Did you include one colorful food in each meal?
- \_\_\_\_\_ Did you include foods with contrasting texture--crispy, soft, firm?
- \_\_\_\_\_ Did you include foods with contrasting tastes--strong, tangy, sweet?
- \_\_\_\_\_ Did you consider the temperature out-of-doors in your planning? Something chilled for a hot day or hot for a cold day.
- \_\_\_\_\_ Did you include any seasonal food such as berries or tomatoes?

### Club Activity Ideas

Develop skills in rotisserie cookery. Cook a ham, chicken, turkey, leg of lamb or roast. Plan, prepare, and serve a complete meal with this meat.

Continue to improve other outdoor cooking skills. Use several different cookery methods and cook some foods you have not prepared before.

Entertain a group at a patio party.

Prepare a back yard party for younger children.

Make barbecue bib-aprons, chef hats and/or pot holders.

Build some outdoor cooking equipment or furniture for a city park or community center.

### Member Activity Ideas

Create recipes of your own and vary old recipes to suit your own tastes.

Add more favorite recipes to your outdoor cookery file.

Make outdoor cooking equipment.

Make outdoor furniture.

Build a patio.

## CAMP COOKERY

When planning for camp cooking, consider easy to carry foods. Take only the amount of food you will need for the meals planned. Plan your menu carefully to include foods that are easy to pack and prepare. If you do not want to take a lot a cooking equipment, plan your menu to include foods that can be cooked on sticks over an open fire or on a bed of coals. Aluminum foil is lightweight and is an excellent way of cooking food outdoors.

Weekend camping means you will probably be staying for two or three nights. Plan on using some of the more complicated cooking skills you have learned. Again, menu planning will be a very important part of the whole trip. If more than two or three are going, you can plan a more varied menu and each one can take turns being the "master chef". It requires careful planning to prepare for six or more outdoor meals. The right food, utensils, clothing and sleeping gear must all be considered beforehand so you do not forget something important. Each camper should make their own list and then get together and plan which person will bring what type of food. Stick to the menu you have planned for each meal. Allow plenty, but do not take more than you will need. This way you will not have to carry out any unused foods.

There are other factors to consider when planning your outing such as a water source and shelter. Know how far you are going, what method of transportation you will use, and how long you are going to be gone to determine what you take and how much.

### Purifying Water

When you decide where you are going camping, remember water! Is there safe drinking water available? If not, take along iodine water-purification tablets. In most cases, you would use one tablet per quart of water. Double the dose for water with high organic coloring. Water is purified in 15 minutes.

A second alternative is to boil the water actively for five minutes. Then pour it back and forth from one pot to another several times before use. If the water is murky or appears dirty, it can be cleared by filtering it through sand and a clean handkerchief, and then, purifying it with iodine tablets or by boiling.

### Cooking at High Altitudes

If you hike or camp in the mountains, remember air pressure decreases as you climb higher. Water boils at lower and lower temperatures the higher you climb. This means cooking time must be increased at higher altitudes. A safe rule to use until you become experienced is to add roughly 10% more cooking time per 1,000 feet elevation.

Fully prepared or partially prepared foods are handy for cooking at high elevations because they do not require much cooking.

## Shelter

If you are planning a camping trip for one night and do not want to bring along a lot of heavy gear, try making your own shelter. A few poles lashed together with some fir boughs on top may be all you need to protect you. A tarp supported by poles will keep you dry if it should happen to rain during the night.

## Club Activity Ideas

Combine outdoor cookery skills with camping and go on an overnight or weekend camping trip.

Continue to improve camp cookery skills. Use several different methods of cookery and cook some foods you have not prepared before.

Buy some freeze-dried ready prepared foods. Prepare them over the camp fire. How do they compare to other foods in cost?

Learn to make jerky using beef or venison to take on your campout.

Learn to smoke fish. Build an oven for smoking, using an old refrigerator or other materials. Smoked fish is lightweight and easy to pack for campouts.

Catch crayfish (crawdads). Clean, cool and eat them.

Cook hamburger patties directly on charcoal coals. Try cooking other foods directly on coals, such as potatoes.

Make some simple yeast breads such as English Muffins.

Study and practice survival techniques:

Build fire in wet weather  
Identify "pitch" wood  
Build shelters  
Read compass and maps  
Purify drinking water

Identify edible plants  
First aid  
Tell time by sun  
Send distress signals  
Learn about weather  
clouds/instruments

Study the quality and prices of camping equipment such as tents, sleeping bags, air mattresses, stoves and flashlights.

Set up a temporary campsite for use by club and other groups. Make rustic furniture and shelters using different types of lashings.

Clear land for permanent community picnic or camping area.

Learn songs to sing around campfire. Make a file of popular ones.

Learn stories, skits, stunts, challenges and charades to use for campfire programs. Make a file of popular ones.



Make a file of good games and other activities for camping. Example: paint a checkerboard on canoe paddle. Use wrapped candy for markers. When you jump one, you can eat it!

Make torches from pitch wood or newspapers dipped in melted wax and rolled.

Prepare fire starters to use on rainy days. Example: pour kerosene on soft wood ashes and roll into small balls.

Do some nature crafts.

Learn about the natural resources and historical landmarks of your camping area.

Hiking ideas - Having a purpose or choosing a theme makes your hike more interesting.

- . Progressive supper hike
- . Sunrise hike
- . Lantern hike
- . Hobo hike
- . Camera hike
- . Observation hike - take a list of things to see or make a list of different trees, flowers, etc. you see while hiking.
- . Mystery or surprise-ending hike

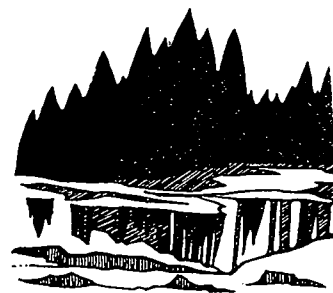
#### Member Activity Ideas

Make camp cookery equipment.

Purchase some camping equipment or supplies you need.

Go camping with your family. Be in charge of planning menus, buying food, and preparing food at camp.

Study careers related to outdoor living.



#### CAMPOUT WITH YOUNGER CHILDREN

Plan a campout and take along younger children. This can be a lot of fun, but requires careful planning beforehand. Do not take more children than you can handle with ease. Include them in the meal preparation and cooking. Decide what each child is going to do. A chart such as this should be helpful.

NAMES

DUTIES AND RESPONSIBILITIES

---

Coordinators

---

Cooks

---

Firemakers

---

Table setters  
and Servers

---

Clean-up Crew

---

Odd Jobbers

When planning the campout, talk with the children and help them dress properly. Nothing can spoil an outing like a child who has worn the wrong shoes and socks or the wrong type of clothing. If it might be chilly before returning home, be sure everyone has a warm jacket or sweat shirt along.

Games can be an important part of your activity. Plan a variety of games that are appropriate for the children. Perhaps one or two of the children can help lead the games as their responsibility. Include all the children in the activities.

Relays and other contests are fun when you are camping with a group of younger children or when your club is camping. Try some of these:

- . Water boiling contest
- . Nature identification
- . Tracking
- . Treasure hunts
- . Compass readings
- . One-match fire
- . Potato or apple peeling
- . Taste identifications
- . Smell identifications
- . Sound identifications
- . Skipping rocks on water
- . Collecting insects

## OUTDOOR EDUCATION

If you enjoy the outdoors and the activities in this unit, you may also want to discover more about edible plants.

### Non Edible Wild Plants

Many plants found in Western Oregon are not at all tasty or safe to eat. In using wild plants, keep the following rules in mind:

Use only plants that you can positively identify.

Cooked plants are safer and more easily digested.

Some plants are perfectly edible but they share characteristics with poisonous ones. Be suspicious of plants with the following characteristics:

- . Plants with milky juice. (dogbane and milkweed)
- . Onion-like plants that do not smell like onion. (Death camas)
- . Plants with parsley-like foliage. (poison hemlock)
- . Roots that smell like parsnips. (water hemlock)
- . Plants in the families Umbelliferae, Solanacea and Leguminosae.
- . Wilted leaves of Prunus. (known to develop hydrocyanic acid)

**WARNING:** Unfamiliar foods may cause stomach upset; especially if not thoroughly and properly cooked!

## Edible Wild Plants

Years ago, people lost in the forest could find plenty of food to help them survive if they knew the wild foods like the Indians used to eat.

One of the easiest early-day Indians' natural foods is the black moss frequently found hanging from trees on both the east and west sides of the Cascades. Pluck it from the branches, roll it into a ball and begin chewing. You may have to acquire a taste for this morsel, but it is thought to be rich in protein and a person can live on it. Indians used to make a sort of salad out of it. Deer and elk love the moss and they often follow logging operations to graze on moss from the limbs of the felled trees. A pound of moss is said to be equivalent to a bale of hay.

Another Indian mainstay was the cattail, whose tender shoots were considered a delicacy. Other Indians sought out edible bulbs such as the harvest Brodiaea or the harvest cluster lily - which resembles the potato in taste.

Popular berries on the Indian's fruit menu were huckleberries, the false Solomon's seal, spikenard, golden currant - also known as Missouri or buffalo currant - and chokeberries.

Plants with edible roots included the thistle. It was distinguished from the bull thistle by its absence of spiny points.

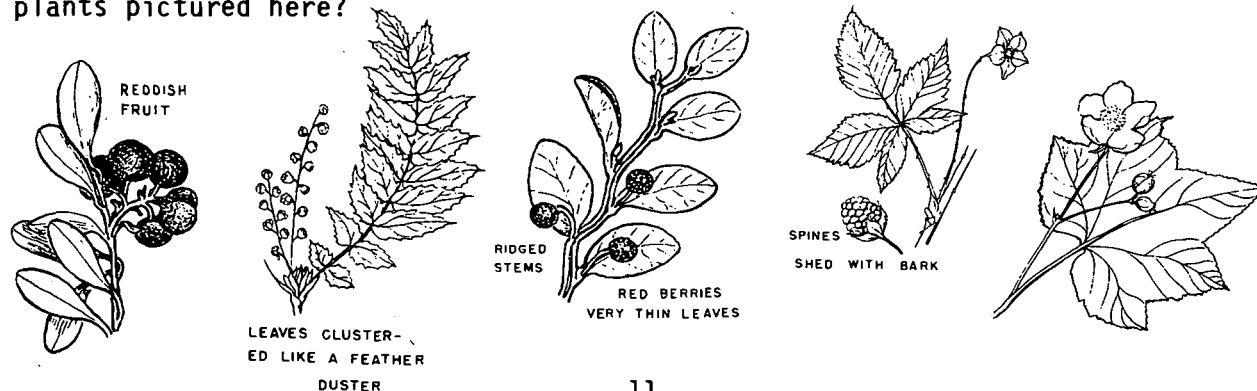
Tribal squaws boiled cow parsnips, which taste slightly like carrots. Women and children also gathered the wocus or yellow pond lily, sometimes called spatterdock, which grows profusely along the west side of upper Klamath Lake. They used a special two-horned pestle and mortar to grind the roasted seeds into meal.

The common sunflower and the balsam root, which resembles it, furnished seeds which were ground into an oily meal and made into a kind of bread or mush. The sticky tarweed or common madia, which opens at night and fades during the day, supplied an oil resembling olive oil.

When the going was really tough during a hard winter, the Indians would resort to chopping away the bark on a ponderosa pine tree and eating the soft cambium layer underneath.

## Edible Wild Plant Identification Quiz

How many edible plants have you tasted? Can you identify the five edible plants pictured here?



Edible Wild Plant Key

HABITAT	STRUCTURE EATEN	METHOD OF PREPARATION
1. Beaches and dunes	A. Underground parts	V. Fresh or cooked
2. Ponds and marshes	B. Young shoots	W. Steamed for tea
3. Stream borders	C. Pith or sapwood	X. Potherbs (greens)
4. Cultivated fields	D. Young leaves	Y. Roasted
5. Damp wooded areas	E. Fruits or seeds	Z. Dried for flour
6. Dry, rock, or sand	F. Blossoms	
7. Mountain slopes		
8. Meadows		

Edible Wild Plant Identification

1. Ash, Mountain (*Sorbus* species) Berry juice used to flavor cold drinks . . . . . 3-7-E-V-Z
2. Aspen (*populus tremuloides*) strip off under-bark and dry . . . . . 3-7-C-V-Z
3. Bracken fern (*Pteridium aquilinum*) Young shoots like asparagus . . . . . 3-4-5-7-A-D-X-Y-Z
4. Burdock (*Arctium minus*) Pith good raw or like asparagus. Common burdock . . . . . 4-8-A-B-C-V-X
5. Cat-tail (*Typha latifolia*) Flower spikes and pollen used in soup . . . . . 2-A-B-F-V-X-O-Y
6. Camas (*Camassia quamash*) . . . . . 8-A-Y
7. Chickweed (*Stellaria media*) . . . . . 4-5-D-X
8. Clover (*Trifolium pratense*) Dip dry smoked roots in oil. Red clover . . . . . 4-5-7-8-D-V-X-Z
9. Dandelion (*Taraxacum officinale*) Dry ground roots used for coffee . . . . . 4-A-D-W-X
10. Dock (*Rumex crispus*) Curly-leafed dock . . . . . 4-D-X
11. Douglas fir (*Pseudotsuga menziesii*) . . . . . 3-5-7-C-W-Z
12. Elderberry (*Sambucus glauca*) Flowers good fried in batter. Blue elderberry . . . . . 3-5-E-F-V
13. Fireweed (*Epilobium angustifolium*) . . . . . 3-4-6-B-C-D-W-X
14. Grape (*Berberis aquifolium*) Oregon grape . . . . . 5-7-E-V
15. Huckleberry (*Vaccinium parvifolium*)  
Red Huckleberry . . . . . 3-7-E-V
16. Hazelnut (*Corylus*) . . . . . 3-4-5-E-V-Y
17. Hemlock (*Tsuga* species) Young tips steeped for tea . . . . . 3-5-7-B-C-D-W-Z
18. Kinnikinnick or Bearberry (*Arctostaphylos uva-ursi*) . . . . . 6-7-E-V-
19. Lamb's quarter (*Chenopodium album*) Prepare like spinach . . . . . 4-D-E-V-X-Z
20. Lodgepole pine (*Pinus contorta*) Dried under-bark . . . . . 6-7-C-E-V-Z
21. Miner's lettuce (*Montia perfoliata*) Some add formic acid by putting in ant hill . . . . . 5-D-V-X
22. Nettle (*Urtica gracilis*) . . . . . 3-5-B-D-W-X
23. Onion (*Allium validum*) and others. Wild onion and swamp onion have a strong odor. Change water a time or two . . . . . 2-3-6-7-A-X
24. Plantain (*Plantago major*) Fix like spinach  
Common Plantain . . . . . 4-D-W-X
25. Rose (*Rosa*) Wild rose . . . . . 3-4-5-E-V

- 26. Salal (*Gaultheria shallon*) . . . . . 1-3-E-V-Z
- 27. Serviceberry or Juneberry (*Amlancheir*) . . . . . 3-5-7-E-V
- 28. Shephard's purse (*Capsella bursa-pastoris*)  
Use like cabbage . . . . . 4-D-X
- 29. Shooting star (*Dodecatheon*) . . . . . 4-D-X
- 30. Shield leaf or Indian rhubarb (*Peltiphyllum*  
*peltatum*) Use in spring or summer . . . . . 3-7-B-V-X
- 31. Skunk cabbage (*Lysichitum americanum*)  
Change water several times . . . . . 2-3-A-D-X-Y-Z
- 32. Solomon's seal (*Smilacina racemosa*)  
False Solomon's seal . . . . . 3-5-A-B-D-X
- 33. Spruce (*Picea species*) . . . . . 3-5-7-B-C-D-Y-Z
- 34. Strawberry (*Fragaria species*) . . . . . 3-5-7-E-V
- 35. Sword fern (*Polystichum munitum*) . . . . . 5-7-A-Y-Z
- 36. Watercress (*Rorippa nasturtium-aquaticum*) . . . . . 2-3-V-D
- 37. Whortleberry (*Vaccinium membranaceum*)  
Big whortleberry . . . . . 3-7-C-E-V-Z
- 38. Yellow pine (*Pinus Ponderosa*) . . . . . 3-7-C-E-V-Z

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Identification answers for plants on page 11:  
Kinnikinnick, Oregon Grape, Red Huckleberry, Salmonberry, Thimbleberry

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Glossary of Camp Terms

Experienced campers use terms that you may not recognize. Here are some of the most common terms used in camping and outdoor cookery.

- Airplane fabric - lightweight material woven of long-fibered cotton
- Bannock - bread baked on a pan or a hot stone
- Barbecue - meal cooked directly over coals on a framework of sticks or on a wire grill
- Blanket pins - large safety pins used for turning a blanket into a sleeping bag
- Cache - hidden store of food or equipment
- Canteen - metal flask for carrying water
- Canvas - strong cloth used for heavy weight tents
- Chuck box - box for storing food
- Crisscross fire - fire-lay where each layer of sticks is placed crosswise to layer below it
- Damper - bread baked in hot ashes
- Desert cooler - food storage cooled by the evaporation of water
- Dinglestick - stick with one end stuck into the ground, used for holding a pot over the fire
- Ditch - shallow trench around tent to carry off rainwater
- Duck - the same as canvas
- Dufflebag - sack or bag for carrying camp gear
- Dutch oven - heavy pot and lid of cast iron for baking and stewing directly on coals
- Flapjack - large pancake filling whole pan and turned by tossing in the air
- Fly - double roof of a tent; also shelter put up horizontally for protection against sun or rain
- Fuzz-stick - stick with attached, whittled shavings used as tinder for fire

Grease trap - pit dug in the ground for disposal of dish water  
 Grid - grate of wire for placing pots and pans over fire  
 Grill - wire holder for "grilling" or broiling meat  
 Grommet - sewn or metallic eyelet in tent pole upright  
 Hardwood - wood from broad-leafed trees  
 Hitch - knot for tying a rope to a pole or a ring  
 Imu - meal cooked in the ground without utensils  
 Kabob or Shish kebab - meal of meat and vegetables cooked on a skewer over the  
     coals  
 Lashing - tying two poles together with rope  
 Lean-to - tent or other shelter with a single, sloping roof and open front  
 Line - tin rope or heavy cord used in tent pitching  
 Liner - protective lining for sleeping bag  
 Logging - cutting the trunk of a felled tree in several pieces  
 Lopping - cutting branches off a felled tree  
 Meis (Norwegian, pronounced "mice") - frame of lightweight metal supporting  
     a packsack  
 Mosquito bar - shelter of loosely woven materials for keeping out mosquitos  
 Orienteering - art of finding your way cross-country by the combined use of  
     map and compass  
 Pack - container for carrying camp gear and foodstuffs  
 Peg or Pin - wooden or metal stake used in tent pitching  
 Pitch - to place and set up or erect as, to pitch a tent  
 Planking - cooking fish or meat attached to a board or plank in front of an  
     open fire.  
 Poncho - rain covering consisting of a rectangular piece of waterproof  
     material with a hole in the middle for the head  
 Portaging - carrying a canoe overland from one river or lake to another  
 Shears or Sheers - two poles lashed together and spread apart like a pair  
     of scissors  
 Slide - metal or wooden gadget for keeping a tent line taut  
 Sod cloth - narrow strip of material around bottom of tent to prevent drafts  
 Softwood - wood from evergreen trees  
 Squaw wood - dead branches still attached to the tree  
 Strike - to take down a tent  
 Tarp or Tarpaulin - large, waterproof sheet  
 Teepee fire - fire-lay with fuel arranged in cone shape  
 Tick mattress cover - bag used as mattress when filled with straw or dead  
     leaves  
 Tumpline - strap attached to pack and fitted over forehead for ease in  
     carrying a heavy load  
 Whipping - winding a rope end with string to prevent it from unraveling



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