

From - Mike Andeasen

Date - Fri Jan 17 23:54:41 1997

Subject: Re: Colorado Wild edible help (foil dinners)

Our troop frequently does "Hobo Dinners" or "Tin-Dins". You put uncooked meat (chicken, hamburger, etc) in the center of about 1 ft. sq. of HEAVY aluminum foil (double if not heavy duty). Add vegetables or other stuff (imagination is great - I've used apples/oranges w/pre-cooked ham) cut up into 1" pieces, season to taste, and seal. When sealing, fold two edges up and together and fold at least twice. Then fold the other two edges at least twice toward the center. This should result in a square pouch that is completely sealed. Throw on coals, turn over after about 15-20 min and cook another 5 or so. These can be prepared ahead of time, frozen, and used in place of ice to keep a drink cool. Pre-cook your meat for longer unthawed life. Your troop could open up their pouch to add meat if earned. Our boys like the fact of no clean up after the meal.

Mike Andeasen

From - Howard N.V. Barker

Date - Fri Jan 17 23:56:17 1997

Subject: Pots - no pot cooking

There are several routes you can take. One, wrap a small roast or two separately in 3 or 4 layers of heavy duty tin foil. Wire them close to the exhaust manifolds in you car. If going a ways to your camp-site these would cook quite well. Two, you could find or bring some clay with you and make a large pot and fire it at camp. Presto! A pot. Three, you can get a brain-tanned hide and suspend it over your fire with water and vittles. Four, set a brain-tanned hide with water and vittles beside a fire. Heat non-river rocks in fire. Heat rocks, rinse in water then put in hide till heat dissipates. Then replace with new rocks till food is done.

In both 3 and 4, 4 sturdy posts should be set up to create a pocket in the hide.

Hope this helps, let me know. Personally I would try one or two of the methods in my back yard first and get some knowledge about how to fire clay without a kiln.

Howard N.V. Barker

From - Benjamin Pressley

Date - Sat Jan 18 00:01:15 1997

Subject: Re: pots- No Pot Cooking 2

Howard, have you tried any of these things that you have made note of? There is a lot more to pottery firing than you mentioned. You might want to access the pottery thread for some really great info that has been shared on this subject.

A fresh rawhide will work this way but I don't recommend a brain-tanned hide. For one thing why go through all the trouble of the entire tanning process if your just going to cook in it. A fresh rawhide suspended and formed with an opening made from a willow hoop can actually be suspended over hot coals by a tripod and cooked in. It drips like crazy, though.

If you hot rock cook in it, it hardly drips at all though. It can also be just used to line a hole in the ground if you are going to hot rock cook in it.

Benjamin Pressley

WILDERNESS COOKING METHODS

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Cooking in the wilderness...what visions of rapture it brings to mind. Some of my richest experiences have been enjoying a meal cooked over an 'open fire' stretched out by some mountain stream. Food just seems to taste better cooked and eaten outdoors, doesn't it?

There are some pretty decent lightweight systems on the market for cooking on the trail, if you have the money and you are willing to carry all that stuff. My quest for many years now, though, has been to simplify; Re-examine my philosophies and gear for lightweight travel and efficiency. In this process I have discovered or re-discovered some cooking methods that have been used by explorers and prehistoric people of the past for thousands of years that work just great and certainly lighten the load on my aching back!

These cooking methods are also a valuable survival skill. Each year many unprepared, unsuspecting, outdoor loving people are thrust into a survival situation with no modern gear. The number one killer, statistically, of a person thrown into this situation, is lack of knowledge. They get paranoid. They think

only of what they don't have instead of what they do have and make all the wrong choices. Every person that enjoys the outdoors should take at least a basic survival skills course and a first aid course.

There are many methods of cooking in the wilderness, without aid of modern gear. Some require production of a simple tool or container and some use no kind of utensil at all, utilizing only the fire and the coals it produces. Cooking in the wilderness, even in a survival situation, without the aid of modern gear, can be accomplished very effectively if one will only use their head, look around them and use whatever materials they have on hand to produce whatever cooking implements are needed for the given task. After all, every pot, pan and spoon we are familiar with was manufactured from some raw material at one time or another.

In almost all cases, whatever you are cooking requires the coals of the fire and not the fire itself, unless you are toasting, browning or reflecting the fire's heat. Many people make the mistake of trying to cook over an open flame, which in most cases burns the outside of what they are cooking, leaving the inside uncooked. The reason for this is flames are hotter than coals and more inconsistent in heat distribution. Open flames register temperatures that are jumping anywhere in temperature from 200 degrees F to 1000+ degrees F constantly.

Furthermore, all woods do not burn at the same rate. Hardwoods burn slower and hotter than soft woods. There is also a difference in the way evergreen trees burn and deciduous trees burn. Evergreen trees have a resin or 'gum' that causes 'hot spots' in the fire. Does this mean you should only use one kind of wood to cook? No, it just means that you need to be aware of the differences between woods. The chart included in the sidebar entitled Qualities of Various Woods will help you choose the right wood for the task at hand.

Some of the methods described below require that food have direct contact with the wood you are cooking on. Especially in cases like these you want to avoid evergreen coals because of the taste they will taint the food with. Whatever you are cooking you need to have enough coals to complete the cooking. For this reason it is a good idea to keep a fire going producing coals while you use another area of your fire ring or a separate fire ring or pit to cook in where you may constantly transfer coals as needed, thereby, keeping an adequate supply of hot coals on hand.

You may avoid 'fishing' out coals and scorching your skin in the process by carefully 'flipping' the fire. To accomplish this you will need a large enough fire ring with fire built at one end. When there is a sufficient supply of coals burned down then carefully move the fire and any wood that is still burning to the other side of your fire rings, thus leaving a bed of coals behind. Add additional kindling or fuel if needed to stoke the fire up again. The fire can be 'flipped' as many times as needed back and forth within the fire ring. When done carefully with long sticks to aid in 'flipping' the fire, this is often safer than trying to 'fish' out coals from under a burning fire. A fire will also serve you better, if you plan the type of fire arrangement you will need in advance for the job you will need it to do. Never build a fire larger than you need it to be. It is a good idea to know how hot the fire or coals are that you wish to cook on. Lynn Hopkins, an expert dutch oven cook, came up with this method for determining the temperature of the fire or coals. Try holding your hand about three inches above the spot you intend on cooking over. Count how long it takes for you to move your hand because it is too hot, in one second counts. Now, look at the table below to find the approximate temperature of the fire or coals based on your count:

#### COUNTS HEAT TEMPERATURE

6 to 8 Slow 250-350 Degrees F (120-175C)

4 to 5 Moderate 350-400 Degrees F (175-200C)

2 to 3 Hot 400-450 Degrees F (200-230C)

1 or Less Very Hot 450-500 Degrees F (230-260C)

When using any cooking method keep normal cooking times in mind and the temperatures you are working with based on the chart above. You should also check the item you are cooking frequently and turn it regularly, except in the cases mentioned below that require no checking.

Following the guidelines included and trying these methods out and getting a 'feel' for them is the best way to be successful at them. Let's look at a few cooking methods:

#### FLAT STONE COOKING

A flat stone either pre-heated in the fire or placed over two other stones and hot coals raked beneath it will make a fine griddle for cooking cakes, eggs, meat or just about any item you would normally cook on a griddle. Soapstone is a particularly good choice for it retains heat for a long period of time and heats evenly throughout. However, I have cooked on a 'griddle' made of granite many times. I actually was

challenged on this once and accepted the invitation to a contest between my rock and the challenger's frying pan. We were given the same amount of coals from the same fire. We each cooked pancakes from the same batter. I was still cooking pancakes long after the challenger's frying pan and coals were cool!

#### ASH COOKING

This is kind of a misnomer, for to cook using this method you place items to be cooked right on the bed of coals, not a layer of ash. Many foods may be cooked by placing them right on top of the hot coals themselves. If you use hardwood coals you will have very little to no ash to stick to your food. A little ash will not hurt you anyway.

A dough prepared and flattened into cakes or rolled into balls and placed directly on the coals will cook just fine. When the outside is thoroughly browned just remove from the coals and break open and eat the bread from inside or rake off the ashes and eat whole. The outside is usually too burned to eat by the time the inside is done, but the inside is very tasty.

Steaks may be laid directly on the coals and turned frequently. Laying meat directly on the coals really sears and seals the meat's natural juices in and makes the juiciest steak you ever ate!

Tubers, such as potatoes can be cooked this way. You should bury them in the coals. You can poke at them to see if they are tender. Don't let the hard feel of the outer layer deceive you, though. The longer they stay in the coals the thicker this outer layer will get, as it burns. Corn on the cob, open husked, soaked and placed back in the husk and laid on the coals steams corn very well. Turn frequently.

#### SPIT COOKING

A spit is a green stick used to skewer the items you wish cooked and then either held over the coals or supported by two forked sticks or allowed to dangle over the coals by jamming the other end under a stone or stuck into the ground. This method can be used like a shishkabob for chunks of meat and vegetables. Dough may be formed into a snake and spiraled around a stick and baked over the heat of the coals or near an open flame. Be sure to turn frequently, you only want it to brown.

Eggs may be cooked by making a miniature arrangement of two forked sticks, carefully pecking a tiny hole in each end of the egg and skewering the egg and placing it across the two forked sticks near the fire. The holes give you a means of skewering the egg and also allow steam to escape to keep the egg from exploding.

When cooking a small animal like a duck, squirrel or rabbit the problem is often encountered of the meat not turning with the stick, as you turn it. This problem can be solved by drilling two holes in the middle of the stick you are using to skewer with. Whittle two smaller sticks that will fit through the diameter of the holes you just drilled snugly, pointing them on one end. Now, skewer the beast as before and pierce the body through with the two smaller sticks, through the drilled holes and through the other side of the meat you are cooking. Now, it will turn when you turn the skewer, rather like a rotisserie. You may also wish to bind up the meat with some sort of string to keep legs and such from dangling and falling into the fire as they cook.

#### DANGLING

A small animal such as described above may also be cooked by wrapping the body with string, securing all dangling parts and then allowing enough length to dangle it near the fire with a tripod or 'dingle' stick. This allows the meat to turn and cook evenly by giving it an occasional whirl. Just don't dangle close enough to the fire for it to scorch the meat and/or burn the string in two. It is a good idea to use a reflector in conjunction with dangling. You may also wish to catch the drippings in a container, if you have one, for cooking and flavoring other foods, such as gravy.

#### REFLECTOR COOKING

A reflector may be as simple as several short logs stacked on one another to the height of two to three feet and staked on each side to keep from tumbling down or it could be constructed to have three sides thus utilizing more heat. Slanting your reflector so it is farther out at the top than the bottom is also more efficient than a wall perpendicular to the ground. The reflector should be placed behind the item being cooked so the item being cooked is between the reflector and the fire, reflecting the heat of the fire and cooking the meat thoroughly. The reflector can be used in combination with many of the cooking methods described here, not to mention the warmth it can provide you by situating your shelter so you are between the shelter and the fire with the reflector to the other side of the fire reflecting the heat back to you.

#### CLAY COOKING

Cooking meat by covering it with clay and baking it in the coals has the effect of a clay oven and steams the meat until tender and juicy in its own juices. To use this method acquire some good sticky clay or mud, and smear it over the entire item you are cooking. Punch a hole with a small stick through the clay to the meat to allow a place for steam to escape. Place it near the fire to allow the clay to harden, then checking to make sure your steam hole is still clear, place it in the hot coals and cover it with more coals, being careful not to cover the steam hole, otherwise it can explode, then, cook until done. Fresh fish or fowl, cooks up particularly well using this method and you need not remove feathers or scales as these will pull off as you remove the clay. The entrails cook into a small ball in the body cavity that is easily raked out after cooking and does not taint the flavor of the meat. In the case of any other animal, it should be eviscerated and skinned and covered with yucca or grape leaves, even brown paper, to prevent any grit from staying with the meat. You may also wish to place herbs and spices in the body cavity before covering it with leaves and clay.

### STEAM PIT

The steam pit is a pit dug large enough to hold the items being cooked. It is then lined with stones and a fire is built in the pit heating the rocks around it. The fire and coals are then removed or some coals may remain provided they are covered with a layer of ash and wet grasses. Pile these wet grasses and perhaps some wild onions on the bottom of the pit and then place the meat and tubers or whatever you are cooking on the top of the grass and then pile more grasses over this.

Grasses are not poisonous. The only caution here is in the case of grass seed. Grass seed is edible but only if they are not covered with a dark colored fungus known as ergot. Ergot is a toxic fungus. You may add some water, but, not enough to cool the rocks down, just enough to cause steam. Then, seal the opening of the pit with a flat rock and seal this over with dirt. This type of cooking is very good because it need not be constantly attended, in fact, the pit should not be opened until the food is done. You need not worry about food over cooking in the steam pit for it is cooling down as it is cooking. You can place items in it to cook and come back 6-8 hours later and have a hot meal waiting for you and since it is buried you need not worry about animals eating it before you. It is also very nutritious, for it steams in the flavor and vitamins.

### HOT ROCK COOKING

For hot rock cooking you will need a container of some sort. A bowl may be produced by burn and scrape methods (See sidebar: Burn and Scrape Bowls) or a tightly woven basket that will hold water or a fresh rawhide staked to the sides of a pit or suspended by a tripod (rawhide may be suspended over a fire by a tripod for boiling but it does draw up and leak terribly, using the hot rock method, it does not hardly leak at all.) Liquid is then placed in the container for stew or for purifying and rocks are heated in the fire, several, about large egg size or a little larger. Be careful heating rocks. All rocks may explode when heated. Those found in the water should be particularly avoided as these may hold water within them exploding when heated. There are many simple methods of producing thongs. The one I like best was shown to me by Jeff Gottlieb. You simply bind a green limb of suitable length at one end. You then split the limb from the other end up to your binding. A small stick may then be placed to wedge the thongs open and provide a fulcrum for the thongs to bend against like a spring when being used. When the rocks are hot place them one at a time in the water, with the thongs, you may wish to brush them off a little, to keep ashes from getting in the stew. The heat in the rock will be imparted to the water, gradually causing it to boil. You then remove the rocks from the liquid and place them back in another part of the fire, so you don't get them mixed up, to heat again. You continue doing this for the length and temperature of the liquid you desire. You may wish to manufacture a simple basket with a handle to place the hot rocks in to lower them into the liquid with, thus making them easier to remove. In prehistoric times soapstone was shaped and a hole drilled in each rock to make them easy to 'hook' with a stick for moving. If you have soapstone, it is still the best choice and is less likely to explode. If purifying water, boil for at least five minutes. Making a stew is one of the best ways to get the maximum nutrition from several small items, if you drink the broth, after eating all the vegetables and meats. Many find insects more palatable to eat this way, in a survival situation. For they may be roasted and ground to a powder and then added to the stew to thicken it.

## PARCHING

Nuts, berries, seeds, tubers and such may be parched in a basket or bowl by shaking them around in a container with some hot coals until done. They may then be eaten or ground up and added to stews. In a survival situation, insects may also be cooked in this manner. When eating any insects, legs, wings and heads should be removed, as these may get caught in your throat.

## PLANK COOKING

Fish and small animals or slabs of meat may be cooked on a board or plank by securing the meat to the board by tying it or pegging it in some manner. The board with meat secured to it is then placed near the fire, with the meat exposed to the heat until done. Do not use a treated board or sappy pine. The treated board can impart toxic elements to the meat and the pine can give the meat a funny taste. You may also wish to use a reflector in conjunction with this method of cooking.

## THE BAMBOO STEAMER

My friend, 'Mountain' Mel Deweese from Grand Junction, Colorado taught me this one. He learned it from the Negritos in the Philippine Islands. He tells me that several of these cylinders were made up and filled with rice and carried on the trail and not broken open until they were hungry enough to eat. You will probably need to refer to the drawing for constructing this item. A joint of bamboo is cut leaving the ends closed on each end by cutting on the other side of the two joints that will form the ends. A 'door' is then cut at acute angles and carefully removed for it will need to be placed back in place. The tube is then half filled with rice and half filled with water. You may also add herbs or bits of meat. The door is then placed back in place. You then sit the bamboo cooker on top of a bed of hot coals with the door facing up and just let it cook. The bamboo will scorch on the outside some but does not burn through due to the fact that the water inside is absorbing the heat faster. It's kind of like that old Boy Scout trick, boiling water in a paper cup. Occasionally check to see if the rice is cooked by shaking the tube enough to be able to tell if there is any more water inside. When there is not enough water to slosh around inside then the cooker should be removed and allowed to cool enough to touch before opening. When ready to eat, just split the entire length of the tube for two delicious, steamed trays of rice! This also works well with dehydrated foods.

## SMOKING RACK

Tony Breda, a Wapanoag from Towson, Maryland showed me this method of cooking that I have used numerous times and with many kinds of meat since. Again, referring to the illustration when constructing this rack will help you. Lash together two tripods that will stand independently. Now lash as many horizontal poles across the front and back as you will need to cook on. There is no need to make this rack any larger or taller than you will need for the amount of meat you have to cook. Now lay strips of meat you wish to cook along the length of the poles draping down over either side of the pole. Fish cook really well on this rack too. Just cut fresh fish open, eviscerate, spread open and break the backbone in several places. Do not skin them for the skin will help to hold the meat together as it cooks. Lay the open fish over the rack with meat side out and skin side down. The rack should be placed near your fire where the meat will catch the smoke coming off of the fire. As your fire burns down coals, place a layer of coals beneath the rack, also. This is a slow cooking process that smokes the meat and flavors it to perfection and the smoke keeps away insects while it is cooking. You may also cook the meat to the point that it dries into jerky, if you wish, so it is also a good way to preserve meat for later. Dried fish is not that tasty, however, but dried fish may be ground, bones and all, into a powder that can be added to stews later for the nourishment.

## BEANHOLE COOKING

This is a little more modern a method of cooking, in that it requires you use a metal pot. It is similar to the steam pit though, in that a pit must be dug a little larger than the size of the pot. You may line the pit with rocks, if you wish. It is not necessary, but it is more efficient. A fire is built in the pit burning down to coals and drying out and imparting heat to the dirt around it. A bed of coals is left in the pit. You may even wish to throw some rocks in with the coals to absorb heat. The pot containing stew or whatever you are cooking is then placed in the pit and coals are built up around the covered pot and on the lid of it. The pit is then covered with dirt and allowed to cook until done. This method acts rather like a crock pot, so you may wish to familiarize yourself with some crock pot recipes for trying out this cooking method. Like the

steam pit, once you get the pot buried, you can come back six to eight hours later to a hot meal you didn't have to attend. You may wish to leave the pit uncovered and place several pieces of kindling around the pot, one end down in the coals, the other sticking out. These will burn down gradually on their own and will keep you from having to attend the fire all the while, however you cannot just leave it totally unattended, as you did in burying it. When using this method it is also a good idea to rotate the pot frequently one quarter of a turn clockwise and the lid one quarter of a turn counter clockwise to assure even heat distribution, especially in the case of hot spots in evergreen coals.

#### CHIPPEWA KITCHEN

A very convenient item to build for a long term camp is the Chippewa kitchen. It is a large quadripod, as tall as you with a shelf extended to one side. This shelf is then covered with mud and allowed to dry after forming two small, bowl shaped depressions in the clay. These depressions are used to place hot coals in and allow you the ease of standing as you cook on them, much like the burners on your stove at home. You may then place your pots right on the 'burners' as you cook.

You can also place the entire assembly near your cook fire, thus allowing a string to dangle from the center for suspending cooking meat or a pot hook.

These are but some of many methods of outdoor cooking that are available to the innovative woodsman. I am sure as you practice these you will devise many others and improve upon these. They may also greatly lighten your pack load by keeping you from carrying so many pots and pans because you won't need as many. So, enjoy the wilderness!

#### CREDITS:

1. Instruction from Steven 'Snow Bear' Taylor, 'Mountain' Mel Deweese and Tony Breda.
2. Wilderness Cooking Methods by John McPherson
3. Dutch Oven Secrets by Lynn Hopkins
4. Qualities of Various Woods chart, Source unknown

From - Sat Jan 18 06:48:28 1997

From: Dr AF Bourbeau

Subject: Automatic chop sticks!

Tom Elpel's mention of chopsticks in the Nothing thread reminded me of an invention of mine which is so simple it always gets a laugh out of my students. But it works! Seems to me it's a good example of what Tom was talking about. Here it is folks, a world premiere:

#### AUTOMATIC CHOPSTICKS!!

Take a ¼ inch green branch, as straight as possible and about a foot and a half long. Bend it in half, it will break but will stay attached. Cut the ends so they are even. There you have it. The chopsticks will close when you squeeze them, and will open automatically when the pressure is released because of the spring in the bend.

These are easier to use than real chopsticks! Don't forget the magic phrase when you use them: "fooin me tummi wiwood shoo tast goodi".

Have fun with your hinese flied lice!

Andre

Professor of Outdoor Pursuits, University of Quebec  
555 University Blvd, Chicoutimi, (Quebec), Canada G7H2B1

Date: Thu, 23 Jan 1997 07:29:13 -0700

From: James E. Burdine

Subject Re: Clean water/solar cookers

Perhaps slightly off the list subject, but one of the things being promoted in many of the third world countries is solar cookers. They are easy to cobble up out of available materials (saw an example of one made from straw) the only technical materials being glass plate, a dark metal pot, and aluminum foil. Highly polished metal plate could take the place of the aluminum foil. One of the things they will do is pasteurize water. The box type is bulky to carry, but the panel type would be good for travel, but you would have to add a oven type plastic bag(subtracting the glass) Temperatures up to 300 degrees, and they are good for baking bread, cooking meals, etc. as well. Mainly they are being promoted to prevent deforestation.

Jim Burdine

Date: Thu, 23 Jan 1997 08:54:25 -0700

From: Chris Smith

Subject: Re: Clean water/solar cookers

I'm all for that and I'll take a dozen. Have you seen the large collection of construction plans for these devices at the website for The Solar Cooking Archives? Serious project material for box, panel and parabolic cookers and pasteurizers. <http://www.accessone.com/~sbcn/index.htm>

Chris

Date: Thu, 23 Jan 1997 11:06:36 -0700

From: James E. Burdine

Subject: solar cookers

Do you know where I can find out about solar cookers, and whether they are practical, say, outside Nevada? :) Somehow I doubt they will work in Buffalo...

Phil

To quote from "Solar cooking for Free" by Christopher Nyerges in the June/July 1994 issue of MOTHER EARTH NEWS:

" In fact, solar cookers are practical in every state of the Union (except Alaska) for at least six to eight months every year. Even with snow on the ground, you'll be able to cook if the day is sunny."

This article also has plans for a solar cooker made from cardboard. Solar cooker plans are also available on the net for a variety of types, box, parabolic, and panel. Try the following url

<http://www.accessone.com/~sbcn/> for more plans on the web.

Jim Burdine

Date: Sun, 26 Jan 1997 23:57:41 +0000

From: Dr AF Bourbeau

Subject: 25 food staples for walkabouts

Hi everyone,

Sorry for the delay in posting this information on 25 basic food staples for walkabouts which I had promised several days ago. I forgot that I had to translate it first, and also that I had to reformat the Exel file for this media. Anyhow, here it is, finally.

I will be pleased to answer any questions related to this. The data herein presented is based on research conducted over a period of 12 years where I was responsible for planning thousands of expeditions from 10 to 54 days in duration for summer camps in northern Ontario and QuÉbec.

A chef can prepare just about any modern recipe using the 25 ingredients listed below. Hope this makes your less than primitive walkabouts more enjoyable!

Cheers,

Andre

**Food staples for walkabouts (after first few days of fresh food) © 1996 Dr A. F. Bourbeau**

<b>Starches:</b>	<b>Weight%</b>	<b>Gram/men/day</b>	<b>G/women/day</b>	<b>G/ado/day</b>
<b>Flour</b>	20	180	140	200
<b>Noodles</b>	9	81	63	90
<b>Rice</b>	6	54	42	60
<b>Oatmeal/other grains</b>	6	54	42	60
<b>Potato flakes</b>	2	18	14	20
<b>Beans</b>	2	18	14	20
<b>Total starches</b>	45	405	315	450

Long and wide egg noodles will do for noodle dishes and will double for spaghetti or lasagna, and when broken into small pieces, for macaroni or soup noodles.

<b>Veggies:</b>	<b>Weight%</b>	<b>Gram/men/day</b>	<b>G/women/day</b>	<b>G/ado/day</b>
<b>Dried vegetables</b>	2	18	14	20
<b>Fresh onion</b>	2	18	14	20
<b>Tomato paste/powder</b>	1	9	7	10
<b>Total veggies</b>	5	45	35	50

Fresh onions will last for months if left unwrapped in a mesh bag. Chefs will tell you that browned onion is the most important basic flavor in cooking, and dried onion just doesn't work to give that homemade taste.

Dairy prod	Weight%	Gram/men/day	G/women/day	G/ado/day
Dried/fresh/frz eggs	2	18	14	20
Milk powder	2	18	14	20
Fresh cheese	6	54	42	60
Cheese powder	2	18	14	20
<b>Total dairy products</b>	<b>12</b>	<b>108</b>	<b>84</b>	<b>120</b>

Fresh eggs will keep for months if left in the shell, even in summer.

Milk powder is very important for nutrition. You don't have to drink it. Add it to breads, bannock, cheese dishes, cakes etc.

Fresh cheese will keep for a long time if wrapped in cloth saturated with baking soda. Waxed cheese and old cheese also last a long time. Moldy cheese is still good if you cut off the mold.

Meats	Weight%	Gram/men/day	G/women/day	G/ado/day
Dried/smoked meats	5	45	35	50
Salted meats	2	18	14	20
Canned/frozen meats	5	45	35	50
<b>Total meats</b>	<b>12</b>	<b>108</b>	<b>84</b>	<b>120</b>

Dried salami and pepperoni last a long time, as do some old fashioned cured hams and bacon. They will last even longer if wrapped in cloth saturated with vinegar. Pemmican and beef jerky are great.

Salted meat is either salt pork which makes great dishes when cut into small pieces and fried with onions as the start to various meals, or salted fish, which are added to rice or noodles.

Canned meat should be in oil, such as tuna fish, for maximum calories per weight.

Nuts	Weight%	Gram/men/day	G/women/day	G/ado/day
Mixed nuts	2	18	14	20
Peanut butter	2	18	14	20
<b>Total nuts</b>	<b>4</b>	<b>36</b>	<b>28</b>	<b>40</b>

Fats	Weight%	Gram/men/day	G/women/day	G/ado/day
Butter/margarine	3	27	21	30
Lard or shortening	3	27	21	30
<b>Total fats</b>	<b>6</b>	<b>54</b>	<b>42</b>	<b>60</b>

Fat can be used for deep frying while there is a lot, for making donuts, fish batter, fruit fritters etc., as long as it is strained after each use. When there isn't enough left for deep frying, use for frying or add to cakes, breads, bannocks, oatmeal etc.

Sweets	Weight%	Gram/men/day	G/women/day	G/ado/day
Brown/white sugar	3	27	21	30
Jam/marmalade	1	9	7	10
Semi-sweet chocolate	4	36	28	40
Asstd juice powders	1	9	7	10
<b>Total sweets</b>	<b>9</b>	<b>81</b>	<b>63</b>	<b>90</b>

Fruits	Weight%	Gram/men/day	G/women/day	G/ado/day
Mixed dried fruits	7	63	49	70
<b>Total fruits</b>	<b>7</b>	<b>63</b>	<b>49</b>	<b>70</b>
<b>GRAND TOTAL</b>	<b>100%</b>	<b>900</b>	<b>700</b>	<b>1000</b>
<b>Kilocalories</b>		<b>3600</b>	<b>2800</b>	<b>4000</b>

Do not mix fruits together before packaging. Instead, place in tall narrow bags in layers for variety as the trip progresses, starting with smaller items on bottom. Example, layer raisins, dates, apricots, pears, apples. That way you start the trip eating apples, then apples & pears, then pears, then pears & apricots, then apricots, then apricots & dates, then dates, then dates & raisins, to finish the trip eating raisins only.



The same formula applies to juice powders, whole-wheat/white flour, nuts, herbs, and oatmeal/other grains.

**Condiments:**

Coffee	Tea	Spices	Salt
Pepper	Cinnamon	Baking powder	Curry
Lemon juice	Chili	Cornstarch	Dried mustard
Dried yeast	Soya sauce	Tobasco Sauce	Assorted herbs
Chicken base	Beef base	Garlic Powder	Onion Powder

Example of how to use this table: 10 day trip with two men, one woman. To calculate flour needs, add  $(180*2) + (140*1) = 500$  mult X 10 days= 5000 grams or 5kg (or  $5*2.2=11.1$  lbs) of flour

Notes: The quantities suggested are sufficient for trips where no other food is available. The quantities can be reduced by the amount to be gathered in the wilds. However, the amount of food which it is possible to gather in the wilds is always overestimated. This can cut a trip short, so do not guess at your realistic food gathering capacity.

The proportions of the different items are the suggestions of the author and will work out if a typical outdoor menu is followed. Midway through the trip and again near the end, an evaluation of proportions consumed vs proportions at-the-start will permit the cook to modify his menu accordingly. To a certain extent, the user may wish to modify item proportions within one category or even within multiple categories by adding and subtracting identical amounts.

The advantages of this system as opposed to pre-packaging meal by meal are twofold:

1. You can pack food for the entire trip in a couple of hours and leave.
2. You have complete cooking liberty: "What do you feel like having tonight?"

Of course, you have to know how to cook when you use this system. But when you do, it feels so much more like living out there rather than bringing city food with you.

Happy wandering!

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Thank you.

Dr Andr -Fran ois Bourbeau  
 Professor of outdoor pursuits, University of Qu bec  
 Chicoutimi, (QC) G7H 2B1