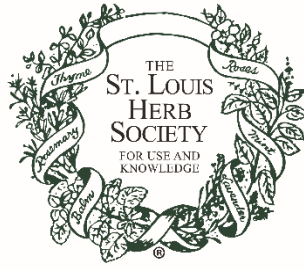


# Harvesting, Preserving, and Cooking with Herbs





## Herbaceous:

# Six Important Flavors in Herbs

1. **Anethole** (the taste of anise or licorice, ouzo, pernod, sambuca): tarragon and fennel have anethole, and even basil has a mild anethole flavor. Thai basil has a strong anethole taste. The licorice herbs are the most food friendly herbs available. Use licorice herbs, and your food—especially any fish or seafood dish—will sparkle. These anise-tasting herbs are also spectacular on eggs, cheese, meat, and tomatoes. French tarragon (a different taste than Russian tarragon), is the flavor found in béarnaise sauce.  
<http://www.epicurious.com/recipes/food/views/bearnaise-sauce-395049>
2. **Lemon** tasting herbs: lemongrass, lemon verbena, lemon thyme, and sorrel. It's easy to add lemon to nearly any dish. So make sure than your herb garden contains at least one of the lemon-tasting herbs.
3. **Resinous**, herbs such as rosemary, thyme, and sage, have a resin, or woody, quality. The flavor of resinous herbs comes through in cooking and is a wonderful match for meats. But be careful. That taste can overpower: the longer rosemary cooks, the stronger the flavor gets. Sage and thyme are very easy to grow and will come back with vigor next year. The flavor of sage is also quite musky in taste and aroma, which is why it blends so well with beans and meats.
4. **Grassy**: such as dill and parsley. Don't overlook the value of parsley. It is very herbaceous, which offers a *balance* to other flavors on the plate. Parsley has a very mild anethole taste. For example, Italians use a garnish called *gremolati*, where the heat of raw garlic is blended with the sour of lemon zest and balanced with a whole bunch of grassy parsley. Without the green that condiment would not be in balance.
5. **Cooling**: Mint. Mint is bracing and stimulating and almost astringent. It is mentholated and cooling. This cooling impact is of great use, especially with meat dishes. If you don't care for cilantro, but want to make dishes that traditionally use it—such as Mexican and Thai recipes—substitute fresh mint. Spearmint is the most versatile of all the mint varieties.
6. **Bitter & Peppery**: oregano, marjoram, arugula, nasturtium, watercress, winter savory. Nobody ever seeks out bitter foods. But bitterness can balance food and deepen the flavor. Marjoram is related to oregano and sometimes called Sweet Marjoram because it doesn't have quite the bitter bite of traditional Greek oregano. Arugula has become popular, though the markets only sell the tender, mild baby arugula. Grow your own arugula and taste the strong bitterness as the arugula matures, which is better when cooked.

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# Harvesting Herbs

Herbs can be harvested whenever they are needed and they taste good. There are no generally applicable rules, but there are a few commonly shared ideas about harvesting herbs.

## **Time of Day:**

Contrary to popular lore, the flavor of an herb plant does not measurably change during the course of a single day.

However, leafy herbs are best harvested in the morning, before they have experienced the daily stresses of heat and of water loss. When herbs (such as mint and lemon balm) are harvested in the late afternoon they often wilt quickly. They can be rehydrated by storing them in an ice bath in the refrigerator for about an hour.

## **Time of Year:**

The flavor profiles for many herbs change profoundly throughout the year. Many herbs are most flavorful just before and during flowering. After flowering the flavor profiles for many herbs (such as mint and oregano) deteriorate.

Sage plants often contain relatively large concentrations of camphor during the spring. These plants taste best in July and August.

In addition to the time of year, the flavor of an herb plant is highly dependent upon the genetics of the plant and upon local conditions. To harvest consistently tasty herb crops, begin with reliable cultivars and taste the plants frequently each year prior to harvesting.

As a practical matter it is often a good idea to harvest herbs (other than sage) for drying in late May or early June. The flavor might not be optimal, but an excellent crop can still be obtained before herb-eating insects make their presence known.

## Harvesting Tools:

Many gardeners harvest herbs with bypass pruners. More often sturdy kitchen shears are used. Do not use anvil pruners to harvest herbs because they crush the stems and thus damage the herb plants.

## How Much can be Harvested:

For branching perennial herb (such as sage, rosemary, and thyme) up to one-third of the plant can be harvested at any one time. In the month preceding the average first frost date, harvesting should be limited. Cut stems should be given time to heal so that they do not freeze and split during winter.

Herbs that grow as clumps of bulbs (such as chives and garlic chives) are harvested so as to leave only one-half inch of the green plant behind. If the entirety of a clump of plants is not needed, harvest first from the edges of each clump.

## Postharvest Care:

Herbs should be processed as soon as possible after harvesting. However, fresh herbs can be stored for up to ten days in a refrigerator at a temperature of between 32 and 41 degrees Fahrenheit in moderately humid but not wet conditions. Herbs should be wrapped in paper towels and placed in a vegetable keeper or an open plastic bag. An exception is basil which deteriorates rapidly at temperatures below 50 degrees Fahrenheit.

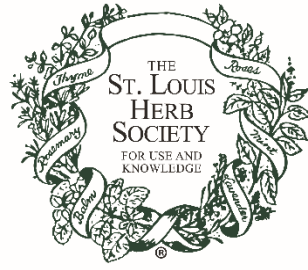
## Special Considerations:

**Basil** should be pruned deeply to encourage abundant bushy growth. Flower buds should be removed, because basil plants deteriorate rapidly after flowering. 'African Blue' basil is an exception. It is a sterile hybrid which blooms but does not set seed and does not deteriorate rapidly after flowering. It can be grown for its abundant blooms which are a mecca for bees and butterflies.

**French tarragon** has a very noticeable anise flavor when fresh. This flavor is due to the presence of the chemical compound estragole. This compound is lost when tarragon is dried. So fresh tarragon and dried tarragon have very different flavors.

**Low-growing bushy herbs** (such as thyme and winter savory) should be cut back each year at least one month prior to the average first frost date. Otherwise these herbs will develop large woody interiors and comparatively few edible leaves. Always allow some green leaves to remain on each pruned branch.

When **parsley** is harvested, stems at the periphery of the plant should be selected. These stems should be cut near to the base of the plant. If a recipe calls for parsley leaves, the stems need not be wasted. Parsley stems are flavorful additions when making vegetable or chicken stock.



## Drying Herbs

### Harvesting Herbs for Drying:

Leafy herbs are best harvested in the morning, before they have experienced the daily stresses of heat and of water loss. Many herbs are most flavorful just before the plant flowers. But herbs for drying can be harvested at any time – if they taste good and look good, they are worth preserving.

### Air Drying Herbs in Bundles (also known as “Bunch Drying”):

One of the oldest and most widely used techniques for drying herbs is to tie their stems in bundles and to hang the bundles upside down. The herbs must not be damp when they are bundled, and the bundles must be relatively small so as to ensure good air circulation. The tied bundles are suspended in a well-ventilated, dark location until the leaves are completely dry. Depending upon the humidity of the air and the thickness of the herbs, drying will probably take between 3 and 6 weeks.

Bunch drying works best for long-stemmed herbs, such as sage, mint, rosemary, and lavender. It is also useful when drying flowers such as hydrangeas and straw flowers.

To prevent the herbs from becoming dusty and to prevent bits of drying herbs from escaping, herb bundles are often enclosed in brown paper bags. To aid in air circulation, the bags are often perforated with small holes.

### The Box Lid Method:

The box lid method is an extremely easy and efficient way to dry herbs. The lid from a box of photocopy paper (18 ½ x 12 x 3 ½ inches) is the perfect size, but any similarly sized cardboard box lid will work. Firstly, a single layer of white paper towels is placed inside the box lid. Next, the herbs are washed in water and shaken to remove excess surface water.

For herbs with relatively large leaves (such as mint and sage) individual leaves are pinched from the plant stems and placed in rows on the paper towel. When one layer is filled, another layer of paper towels is added, and the process is continued. Up to six layers of herbs can be stacked in one box lid. The last layer of herbs is covered with a layer of paper towels. Place a paper label, written in pencil, with the name of the herb and the date collected in each group of herbs.

For herbs with relatively small leaves (such as thyme and tarragon) sections of branches are laid out to dry. The leaves are stripped from the stems after the branches have dried.

Up to six box lids can be stacked vertically with each successive box lid being rotated ninety degrees to ensure adequate ventilation. Depending upon the humidity and the thickness of the herbs, drying takes between 4 and 8 weeks. The box lid method works particularly well with herbs that have relatively thin leaves and with herbs that are rich in anti-microbial compounds. Examples of such herbs include rosemary, marjoram, winter savory, thyme, oregano, mint, tarragon, sage, and basil. The box lid method should not be used for herbs that are very fleshy or for herbs that have very finely divided leaves (such as dill).

### **Oven Drying:**

For those in a hurry, oven drying can be used on herbs that are not fleshy and do not have very finely divided leaves. The herbs are washed and then shaken to remove excess surface water. The herbs are placed onto baking sheets in an oven that is approximately 150 degrees Fahrenheit; however, temperatures anywhere in the range of 100 to 180 degrees will suffice. The herbs are dried until "brittle dry", approximately 15 minutes. When drying, the door to the oven should not be completely closed so that the water vapor from the drying herbs can escape.

### **Microwave Drying:**

Microwave ovens can be used to dry small quantities of a limited variety of herbs. Herbs that can be successfully dried are those that are not fleshy and do not have a high resin content. Herbs that can be dried in a microwave include basil, lovage, parsley, and mint.

The herbs are washed and then shaken to remove excess surface water. Place a small amount of herbs (e.g., about 12 to 15 basil leaves) between two white paper towels. Microwave on HIGH for two to four minutes, stopping every thirty seconds to open the door of the microwave to permit water vapor to escape. Stop as soon as the herbs become brittle and dry. Place herbs on a rack and let cool.

**Microwave drying is potentially dangerous, due to the risk of microwave fires.** Do not attempt to dry large quantities of resinous herbs such as rosemary, because the microwave oven will fill with flammable and potentially explosive vapors. Do not use paper towels that are made from recycled paper, which often contains metal fragment that have not been removed during the manufacturing process. These metal fragments can create sparks in a microwave oven.

**Note:** When microwaves are used to dry herbs for craft projects, the drying process is typically accelerated by the presence of silica gel. Do not use silica gel when microwave drying herbs for human consumption.

## **Food Dehydrators:**

Food dehydrators can be used to dry a wide variety of herbs. Typically, the manufacturers will provide very detailed instructions (including estimated drying times) for all of the commonly grown herbs. If a round food dehydrator is selected, it should have a fan that is located at the top of the dehydrator. This configuration provides more even and reliable drying than can be achieved with dehydrators that have fans located at the bottom of the dehydrator. Food dehydrators that are made from opaque materials are preferred to food dehydrators made from clear plastic, because herbs should be dried in the dark.

## **Drying Herb Seeds:**

Herb seeds (such as fennel and dill) can be obtained by drying the seed heads in paper bags, such as those sold in grocery stores as "lunch bags". When using this technique, the seed heads must be relatively dry before they are placed into a paper bag. If necessary dry in the open air for a day or two before placing the seed heads in a paper bag.

## **Storing and Using Dried Herbs:**

Dried herbs are best stored in air tight containers in a location that is cool and dark. When ground herbs (such as rosemary and sage) are needed, grind your own herbs in small quantities shortly before use. The oils that add flavor and aroma to herbs evaporate rapidly after grinding. Dried herbs are usually 3 to 4 times stronger than the fresh herbs. To substitute dried herbs in a recipe that calls for fresh herbs, use 1/4 to 1/3 of the amount listed in the recipe.

## **Commercially Freeze Dried Herbs:**

Commercially freeze dried herbs are now widely available. These products are particularly useful for herbs that otherwise do not dry well (such as dill, parsley, and chives). After opening, commercially freeze dried herbs should be stored in the refrigerator.



## Freezing Herbs

In most instances culinary herbs are either fresh or dried. All culinary herbs can also be frozen. Directions for simply freezing herbs, freezing herbs in water and freezing herbs in edible oils are given below.

Since most of us have more space in our storage cabinets than in our freezers, the technique of freezing herbs is usually reserved for festive entertaining and special recipes. Directions for floral ice cubes and herbal butters are also given below.

### The Basics of Freezing Herbs:

To simply freeze herbs, wash them and then dry slightly on a paper towel. Strip the leaves from the stem, place leaves in a single layer on parchment or wax paper that is supported by a cookie sheet or shallow tray, and freeze the herbs. Store the frozen herbs in a glass jar, plastic container, or a heavy freezer bag. Remember to label the bags with the name of the herb and the date. Frozen herbs stored in plastic within a frost-free freezer will eventually lose moisture – they are slowly freeze-dried. Such herbs will crumble easily. The taste remains, but the texture may not be suitable for some culinary uses.

### Freezing Herbs in Water:

All culinary herbs can be preserved by freezing in water. Add enough chopped herb to nearly fill each section of an ice tray. Barely cover the herbs in cold water, stir briefly, and freeze. For ease of use, select silicon ice trays. Some of the chopped herb may float at the top of the water. After freezing, fill the ice tray completely with cold water, and freeze for a second time. Store the herbal ice cubes in a plastic container or heavy freezer bag. Remember to label with the name of the herb, the date, and the amount of herb in each cube. When the herbs are thawed, they will be limp. They will be fine for cooking but not suitable as a garnish.

Note: Some herb growers use boiling water to fill each section of the ice tray. The theory is that this blanching step improves the quality of the stored herb. In practice, blanching herbs is unnecessary.



## **Floral Ice Cubes:**

Floral ice cubes are a delightful addition to drink glasses and punch bowls. For very clear ice, begin with distilled water that has been boiled and then cooled. Construct the floral ice cubes in layers. Fill an ice tray  $\frac{1}{4}$  full, add a flower (sometimes face down and sometimes face up), and freeze. (Alternating the position of the flowers ensures that some of the flowers will always float face up in a glass or punch bowl.) Fill the tray to  $\frac{1}{2}$  full, and freeze again. Finally, fill the tray completely, and freeze for a third time. For ease of use, select silicon ice trays that produce relatively large cubes. Large cubes not only provide the necessary space to contain the flower, but also melt slowly – so that the flower can be viewed for an extended period of time.

Floral ice cubes can be made with any small edible flower. Violets, pansies, and nasturtiums are frequently used. Do not use flowers that have been treated with pesticides.

Herbal ice cubes can be made by the same process. Small sprigs of rosemary are particularly attractive. Avoid herbs, such as parsley and basil, which will leave unattractive limp leaves after the ice cubes have melted.

## **Freezing Herbs in Edible Oils:**

All culinary herbs can be preserved by freezing in edible oils. The choice of oil depends upon the recipes for which the herb is intended. Just add enough chopped herb to almost fill each section of an ice tray, fill with oil, mix slightly, and freeze. For ease of use, silicon ice trays are preferred. If the herbs float and are exposed after freezing, add some more oil and refreeze. When frozen, place the cubes in plastic freezer containers or heavy plastic freezer bags. Remember to label with the name of the herb, the date, and the amount of herb in each cube. Herbs can be frozen individually or in combinations. The frozen cubes can be stored for at least six months.

The most popular herbs to be stored in this manner are herbs that are used with oil in frying, such as rosemary, parsley, cilantro, and dill. Some herb growers will freeze exactly one tablespoon of chopped herb in each of many small cubes. Then, adding the desired amount of herb is simple.

Pesto lovers commonly lament the fact that significant quantities of fresh basil are difficult to obtain during the winter and early spring. Fortunately, basil is an herb that retains its flavor when frozen in olive oil; and pesto can be frozen for at least six months. For the best results, make and freeze pesto with all the ingredients except cheese. Add the cheese just before serving.

## **Herb Butter:**

Herb butter is an enjoyable and convenient way to add herbal flavor to bread, rolls, vegetables, and meats. To prepare an herb butter, soften a good-quality unsalted butter and blend with chopped herbs. The appropriate ratio of herbs to butter varies depending upon the potency of each herb. Two tablespoons of chopped herbs for every stick ( $\frac{1}{2}$  cup) of butter is often best. Place the softened mixture on plastic wrap, form into a roll, and freeze. When needed, remove the roll of herb butter from the freezer; and slice the desired amount from the end of the roll. Herb butter can be kept in the freezer for six months or more.

Herb butter is best prepared with high-fat European-style butters. The American-made Plugrá® brand is widely used by American chefs. For a really special treat use a good French butter. In addition to great taste, European-style butters offer an additional advantage. Due to their higher fat content and lower water content, European-style butters are easier to slice than American butters.



## Making Herbal Vinegar

To make herbal vinegar with fresh herbs, pick your herbs in the morning after the dew has dried, when the flavor is most intense. Rinse and dry them in a salad spinner, then on paper towels.

Pack a dry sterilized glass jar loosely with slightly bruised leaves and tender stems of the chosen herbs. Cover the herbs with good quality white wine, red wine, or Champaign vinegar.

Details regarding recommended types and quantities of ingredients are provided in each of the recipes below. If you would like to create your own recipes, approximately 2 cups of herbs, loosely packed, for every four cups of vinegar is often appropriate. Herb vinegars can be made in batches of any size. Just maintain a constant proportion of herb to vinegar.

Once the herbs and vinegar have been added to the jar, cover the mouth of the jar with plastic wrap and seal tightly. Make sure no metal comes in contact with the vinegar. It will cause an adverse chemical reaction and turn the vinegar black. Affix an identifying label including the date. Let steep in a dark cool place for 3 to 12 weeks. Taste the vinegar periodically and continuing steeping until the herbal flavor reaches the desired intensity.

Separate the herbs from the vinegar by pouring through a coarse strainer. Then strain the vinegar twice through a coffee filter or fine mesh jelly bag. If the herbal flavor is a too intense, dilute with some of the original vinegar. Bottle in dry, sterilized glass jars or bottles. Affix identifying labels including the date of bottling.

If you wish, when bottling, add a garnish, for example a fresh herb sprig, a clove of garlic, a hot red pepper, or a strip of orange or lemon peel.

Always make sure that all your bottles, caps and tools are very dry, as any moisture will cloud the vinegar. No metal, no moisture!

# Making Berry Flavored Herbal Vinegar

Making an herbal vinegar that is flavored by berries, for example Blueberries and Spice Vinegar, may require heated vinegar or additional steps as described in the relevant recipes below.

## Herbal Vinegar Recipes

### Basil Red Wine Vinegar

2 cups basil  
4 cups red wine vinegar

### Basil Burnet Red Wine Vinegar

1 cup basil  
1 cup burnet (which is also known as salad burnet)  
4 cups red wine vinegar

### Tarragon White Wine Vinegar

2 cups tarragon  
4 cups white wine vinegar

### Purple Basil Champagne Wine Vinegar

2 cups purple basil  
4 cups Champagne wine vinegar

Note: If the finished vinegar is dark red in color, dilute with more Champagne wine vinegar until the color of the finished vinegar matches the color of a rosé wine.

### Ravigote Vinegar

2 cups burnet  
1 cup basil  
1 cup French tarragon  
1/2 cup thyme  
1 red chili pepper  
2 cloves garlic  
1 sprig rosemary  
4 sprigs peppermint  
1/2 gallon red wine vinegar

## **Gourmet Red Wine Vinegar**

2 cups basil (any kind, mix and match), coarsely chopped  
2 sprigs rosemary leaves, stripped off the stems and chopped  
½ cup thyme leaves, stripped off the stems  
3 cloves garlic, halved  
3 tablespoons whole black peppercorns  
1 quart red wine vinegar

## **Lemon Herb Vinegar**

2 cups lemon thyme sprigs  
1 cup lemon balm leaves  
1 cup lemon verbena sprigs  
1 continuous peel from a fresh lemon  
4 cups white wine vinegar

## **Dill Vinegar**

8 to 10 sprigs fresh dill  
1 clove garlic, sliced (optional)  
10 peppercorns  
3 cups cider vinegar

## **Dill Chive Vinegar**

1 cup snipped fresh dill  
1/2 cup snipped chives  
1/3 cup snipped fresh mint  
1 clove garlic, quartered  
1 quart white wine vinegar

## **Blueberries and Spice Vinegar**

3 cups blueberries  
2 cinnamon sticks  
1 whole nutmeg, halved  
1/2 cup sugar  
1 quart white wine vinegar

Combine vinegar and sugar and simmer until sugar is dissolved. (Do not boil). Pour hot vinegar over the berries, cinnamon sticks and nutmeg. Let stand for 48 hours. Strain through coffee filters and store in dark place for up to 6 months.

## **Blueberry Basil Vinegar**

3 cups fresh blueberries, crushed  
1 cup loosely packed basil leaves, torn  
1 quart white wine vinegar

Heat vinegar to simmer and pour over berries and basil. Let stand for 4-6 weeks in covered jar. Strain through coffee filters or cheesecloth. Discard fruit pulp. Add additional basil leaves to bottles, if desired. Seal bottles.

Note: Purple basil is very pretty in this recipe.

## **Raspberry Vinegar**

3 12-ounce packages frozen red raspberries  
1 gallon white wine vinegar

Place raspberries in one-gallon glass jar. Cover with vinegar. Cover tightly. Let set for at least 4 weeks in cool dark place. Pour off vinegar slowly without disturbing the berries. Use coffee filters to strain.

Put some of the vinegar in a non-aluminum pan with 2 cups sugar and warm, over low heat, just until sugar dissolves. Let cool, then add to the rest of the vinegar. While this is cooling, finish straining the rest of the vinegar until no fruit or seeds remain. (This usually takes 3 strainings.)

# For Additional Information

- “How to Grow Herbs in the Midwest,” 3<sup>rd</sup> Edition, The St. Louis Herb Society, 2004.
- “Herbal Cookery From the Kitchens and Gardens of the St. Louis Herb Society,” St. Louis Herb Society, 2009.
- “The Complete Herb Book,” Jekka McVicar, 2008.
- “Jekka’s Herb Cookbook,” Jekka McVicar, 2011.
- “The Encyclopedia of Herbs,” Arthur O. Tucker and Thomas DeBaggio, 2009.
- “Growing Herbs from Seed, Cutting & Root,” Thomas DeBaggio, 1994.
- “The Spice and Herb Bible,” Second Edition, Ian Hemphill, with recipes by Kate Hemphill, 2006.
- “Herb Society of America - New Encyclopedia of Herbs & Their Uses,” Revised Edition, Deni Brown, 2001.
- “Herbal Profiles and Guides” available free on-line from The Herb Society of America ([www.herbsociety.org](http://www.herbsociety.org)).
- Herbal information, including recipes, can be found on the website of The St. Louis Herb Society ([www.stlouisherbsociety.org](http://www.stlouisherbsociety.org)).
- And there are many other fine herbal references available