



## Some Like It Hot!

### Chili Peppers: 2016 Herb of the Year

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Every year since 1995, the International Herb Association has chosen an Herb of the Year to highlight. During National Herb Week (held the week prior to Mother's Day), national and local herb societies and clubs focus their time and resources to educate the general public about the chosen herb. This year the IHA has chosen Peppers (*Capsicum* spp.)



Most times when we think about peppers, what comes to mind is the bell pepper, also known as sweet pepper. A cultivar of the species *Capsicum annuum*, these plants produce fruits in different colors, including, yellow, orange, green, chocolate (brown), vanilla (white) and purple.

The peppers that have been designated Herb of the Year by the IHA are what is referred to as chili (or chile) peppers. They are also a fruit of plants from the genus *Capsicum*, and members of the nightshade family, *Solanaceae*.

Chili peppers originated in the Americas. After the Columbian Exchange, many cultivars of chili peppers spread across the world, used in both food and medicine.

Chili peppers have been part of the human diet since at least 7500 BCE; the most recent research shows that they were domesticated more than 6000 years ago in Mexico. Christopher Columbus was one of the first Europeans to encounter them (in the Caribbean) and called them peppers because, like the black and white pepper of the *Piper* genus, they had a spicy hot taste.

The five domesticated species of chili peppers are:

- *Capsicum annuum*, which includes Bell, Wax, Cayenne, Jalapeno and Chiltepin Peppers
- *Capsicum frutescens*, which includes Malagueta, Tabasco and Thai Peppers
- *Capsicum chinense* which includes Habanero, Datil and Scotch Bonnet
- *Capsicum pubescens* which includes Rocoto Peppers
- *Capsicum baccatum* which includes the Aji Peppers

The substances that give chili peppers their intensity when ingested or applied topically are capsaicin and several related chemicals, collectively called capsaicinoids. When consumed, capsaicinoids bind with pain receptors in the mouth and throat that are responsible for sensing heat. Once activated by the capsaicinoids, these receptors send a message to the

brain that the person has consumed something hot. The brain responds to the burning sensation by raising the heart rate, increasing perspiration and release of endorphins.

The "heat" of chili peppers is measured in Scoville Heat Units, which is a measure of the dilution of an amount of chili extract added to sugar syrup before its heat becomes undetectable to a panel of tasters, The more it has to be diluted to be undetectable, the more powerful the variety and therefore the higher the rating.[https://en.wikipedia.org/wiki/Chili\\_pepper](https://en.wikipedia.org/wiki/Chili_pepper) - cite note-20 The modern commonplace method for quantitative analysis of SHU rating uses high-performance liquid chromatography to directly measure the capsaicinoid content of a chili pepper variety. Pure capsaicin is a hydrophobic, colorless, odorless, and crystalline-to-waxy solid at room temperature, and measures 16,000,000 SHU.

There is a wide range of intensity found in commonly used peppers:

Bell Pepper	0 SHU
Anaheim	500-2,000 SHU
Pasilla	1,000-2,500 SHU
Jalapeno	2,500-8,000 SHU
Hai	5,000-10,000 SHU
Serrano	8,000-23,000 SHU
Bird's Eye Chili	100,000-225,000 SHU
Habanero	200,000-350,000 SHU

Chili pepper pods, which are actually berries, are used fresh, pickled, smoked and dried. Chili peppers, especially those that are red in color, contain large amounts of vitamin C and carotene. All peppers are a good source of most B vitamins, especially B6, and are high in potassium, magnesium and iron. Most plants in the *Solanaceous* family have toxins in their leaves, but chili peppers do not. The leaves, which are mildly bitter, and not as hot as the fruit, are used in soups and stews.

When choosing fresh chili peppers, look for fruits that have vivid, deep colors and glossy, firm and taut skins. Place unwashed fresh peppers in paper bags or wrap in paper towels and store in the vegetable compartment of the refrigerator, where they should keep for at least one week. Avoid storing peppers in plastic bags, which will cause them to spoil more quickly.

When purchasing dried chili peppers, look for ones that are still vivid in color; if they've lost their color, they've probably lost their flavor as well. Fresh peppers can be hung in sunlight to dry. Once dried they should be kept in a tightly sealed jar, away from sunlight. Dried whole chilies are often reconstituted in liquid before grinding to a paste.

Chili peppers are featured in many cuisines around the world. Fresh or dried chilies are often used to make hot sauce, a liquid condiment that adds spice to food. Hot sauce is found in many cuisines including harissa from North Africa, chili oil from China, and sriracha from Thailand.

Be careful when handling fresh chili peppers, as capsaicin can cause a severe burning sensation if it comes in contact with eyes, skin or lips. Capsaicin primarily resides in the seeds and fleshy white inner membranes. If you want to enjoy the flavor of peppers but minimize the heat, remove these parts. Even amongst peppers of the same variety the heat level can vary. Before adding chili peppers to a recipe, taste a small piece to determine the spice level.

Some fresh chilies have a tough outer skin that is best removed. The easiest method is to roast the chili (blistering or charring the skin without cooking the fruit beneath); this allows the skin to slip off easily. It also imparts a sweeter, somewhat smoky, taste to the fruit.

Roasted red peppers are an expensive condiment in the grocery store, but you can easily make your own:

### **Roasted Red Peppers**

Preheat the oven to 500 degrees.

Place whole peppers on a cookie sheet and place in the oven for 30-40 minutes, until the peppers are charred. Turn twice during the roasting.

Remove the peppers and immediately place in a sealed brown paper bag. Allow to rest for 30 minutes.

When the peppers are cool enough to handle, remove the stem, slip off the skins and shake out the seeds.

Place the peppers in a jar and cover with olive oil.

Refrigerate for up to two weeks.

Chili peppers are quite versatile and can be added to most recipes to up the spice level.

Chili peppers are easy to grow in North Texas. They are a warm season crop and should be planted only when all danger of cold weather has passed; generally 12-16 weeks before the first expected frost.

Peppers grow in all types of soil, but do best in heavy, but well-drained soil. Before planting, incorporate large amounts of organic matter into the planting bed and work a little fertilizer into the soil. Space plants 1-1/2 feet apart in the row, and space rows at least 3 feet apart. Do not cover the roots deeper than the original root ball. To conserve water, create a slightly sunken area around the plant. It is always best to plant late in the day or on a cloudy day to reduce transplant shock. Water plants well and water daily for a week until they are established.

Peppers grow best in gardens that receive at least six hours of sunlight each day. Take care that they are not shaded out by nearby plants.

When the first fruits begin to enlarge, place about 2 tablespoons of fertilizer around the plants about 6" from the stem and water well. This will increase the yield and quality of the peppers. Fruits are generally ready to pick 8-10 weeks after planting out. Pick peppers when they

reach a good size and develop a sheen. If you pick peppers as they mature, the yield will be better.

According to the Texas AgriLife Extension [Publication \(E-515\)](#), the best hot pepper varieties for Texas are: Hidalgo Serrano, Hungarian Wax, Jalapeno, Long Red Cayenne and TAM Mild Jalapeno. Print the guide [here](#).



 <p><b>ANAHEIM</b> A long, mild chili. When red, it's referred to as a Colorado or California chili.</p> <p><b>USES</b> Southwestern cooking, like salsas and chile verde.</p> <p><b>HEAT LEVEL</b> ●●</p>	 <p><b>BANANA</b> Also known as a wax pepper, with a mild, tangy flavor.</p> <p><b>USES</b> Banana peppers are often pickled or stuffed with meat and cheese.</p> <p><b>HEAT LEVEL</b> ●</p>
 <p><b>CAYENNE</b> This South American pepper is hot, spicy and found in many sauces.</p> <p><b>USES</b> Most frequently used as a ground spice or as a whole pepper in Asian dishes.</p> <p><b>HEAT LEVEL</b> ●●●●</p>	 <p><b>FRESNO</b> Similar to a red jalapeño in appearance, flavor and heat level.</p> <p><b>USES</b> Southwestern or Mexican cooking.</p> <p><b>HEAT LEVEL</b> ●●</p>
 <p><b>HABANERO</b> Intensely hot—renowned as one of the hottest chilies in the world.</p> <p><b>USES</b> Caribbean cooking (jerk and marinades) or Latin American cooking.</p> <p><b>HEAT LEVEL</b> ●●●●●</p>	 <p><b>JALAPEÑO</b> The most popular of fresh chiles. When smoked, they become chipotle peppers.</p> <p><b>USES</b> Mexican cooking. A must-have in salsa.</p> <p><b>HEAT LEVEL</b> ●●●</p>
 <p><b>PADRÓN</b> A Spanish pepper that is generally mild but occasionally surprises with a bit of spice.</p> <p><b>USES</b> Blistered on a grill, doused in oil and sprinkled with salt, these are a Spanish classic.</p> <p><b>HEAT LEVEL</b> ●</p>	 <p><b>PIQUILLO</b> A Spanish pepper whose flavor resembles bell peppers.</p> <p><b>USES</b> These peppers are typically stuffed and served as tapas.</p> <p><b>HEAT LEVEL</b> ●</p>
 <p><b>POBLANO</b> The poblano is a large, moderately hot chili that's dark, glossy green.</p> <p><b>USES</b> Mexican or Southwestern dishes, especially chile rellenos.</p> <p><b>HEAT LEVEL</b> ●</p>	 <p><b>RED THAI</b> A medium-hot chili that lends mellow, gradual spice to dishes.</p> <p><b>USES</b> Thai or Indian food; it's especially good in curries.</p> <p><b>HEAT LEVEL</b> ●●</p>
 <p><b>SERRANO</b> A slender chili that packs a lot of heat. The smaller the pepper, the hotter it is.</p> <p><b>USES</b> Mexican or Thai cooking; salsas or curries that require a lot of heat.</p> <p><b>HEAT LEVEL</b> ●●●●</p>	 <p><b>SHISHITO</b> This Japanese chili is generally mild but occasionally spicy.</p> <p><b>USES</b> Prepare as you would Padrón peppers: sear with oil and sprinkle with salt.</p> <p><b>HEAT LEVEL</b> ●●●●</p>

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