

Serrano Peppers



Fields of serrano peppers are few in number in the area, however, during the last couple of years, Yuma has been home to more chili peppers than in previous years. In addition to Serrano, some small fields of Anaheim peppers can also be seen in the region.

The Serrano pepper is said to be about 5 times hotter than the jalapeño pepper.

The seeds and membranes of chile peppers contain most of the capsaicin, the compound that lends them their mouth-searing qualities. Serranos are hot enough to easily irritate the skin on the hands and it can be painful if their juice comes in contact with the eyes. Some wear thin disposable surgical gloves while working with hot chiles, and will not touch their face until the gloves are removed.

Serrano peppers are often used to add considerable heat to salsas and sauces and can be used with or without their seeds. While they do not need to be peeled, these peppers should be roasted before adding to sauces.

Though not as hot as the infamous habañeros, serrano peppers deliver plenty of heat and are the easiest hot chiles to obtain. These dark green or red peppers are between 1 and 2 inches in length and about 1/2 inch in diameter, with a slight taper and a rounded end. The larger variety, termed the Largo, can be twice this size.

Serrano peppers are extremely hot and range in heat between 5,000 and 20,000 Scoville heat units. How high a chile pepper scores on the heat scale is determined by high-performance liquid chromatography measurement of how many parts per million of capsaicin it contains. Capsaicin is the compound that gives chile peppers their fiery bite. This figure is then converted into the historic Scoville heat units that signify how much dilution is necessary to drown out the chile's heat. The heat level of a chile is given as a range because it varies with how and where the pepper was cultivated.

Serrano peppers are another variety of hot chili pepper and differ from other peppers in that they do not need to be steamed or peeled before use because of their thin walls. The Serrano pepper was first grown in the mountains of northern Puebla and Hidalgo in Mexico and is used for quick salads and salsas

The serrano chile is green in color at first, and ripens to red, brown, orange, or yellow. Serrano chile peppers typically don't dry well and are used fresh.

The name serrano has the meaning 'from the mountains' in which it was first founded and grows best. The states of Veracruz, Sinaloa, Nayarit, and Tamaulipas are the biggest producers of Mexican Serrano chiles, growing about 180,000 tons of peppers a year.

Serrano peppers are around 5 times spicier and hotter than jalapeno peppers at a fairly hot 10,000 – 20,000 Scoville heat units on average. They come in red, brown, orange, and yellow depending on how long they are left on the stalk.

Serrano pepper plants grow to a height anywhere in between 2 and 3 feet tall and are planted 18 – 24 inches in full sunlight.

Even though the serrano chile pepper is not extensively cultivated in the area, it is one of the easiest hot pepper to find fresh in the grocery store. This pepper is often chosen for the sharp flavor it gives when incorporated fresh into salsa. When roasted, it is a favorite in Mexican and Southwestern-style sauces.

Perhaps the chief misconception about chili peppers is their red-hot reputation. Many are fiery hot, but many others are sweet, mild, or richly flavored. Their hotness is concentrated in the interior veins or ribs near the seed heart, not in the seeds as is commonly believed (the seeds taste extra hot because they are in close contact with the hot veins). If, when the pepper is cut open, the veins have a yellowish orange color in that area, it usually indicates the pepper will be a potent one.

That the burning sensation that makes chili peppers so appealing to culinary thrill-seekers comes from capsaicin or more accurately a collection of compounds called capsaicinoids. These develop in the placenta or cross-ribs of the fruit, which is why that part of the chili pepper is the hottest. A single dominant gene transmits capsaicinoids. Bell peppers are just like jalapeno peppers and serrano peppers but bell peppers taste bland instead of pungent because they lack that gene.

In 1912, a pharmacist named Scoville came up with a heat index for measuring the “heat” in a chili product, or scoring capsaicinoid content. This index was called the Scoville Units and is still used today. A more modern version used by many chili writers is called “the Official Chile Pepper Heat Scale” with a rating of zero to ten. Bell peppers rate a zero because they contain no capsaicinoid. At a 5 rating: jalapeno peppers, at a 6 rating: serrano peppers, at a 8 rating: cayenne peppers and Tabasco peppers, and at a 9 rating: chalet pin peppers and Thai hot peppers.

To tap into the history of the spelling: the Oxford English dictionary writes the proper spelling is chilli (with two L's). Somewhere in history the Spanish people changed the spelling to "chile". Today, the generality lie in “chile” is mostly used in Mexico and "chili" is used in the USA, predominantly in California and Texas. Because American spice companies label their ground chili blends "chili", you will encounter that spelling in recipes using the purchased ground spice.

More than 140 varieties of chilies peppers are grown in Mexico alone. The types of chili pepper varieties listed below are most popular in the United States and are used in most Mexican cooking recipes.

Depending on the brand, pepper sprays generally contain about 18% oil of capsicum from a very hot variety of chile pepper (*Capsicum frutescens*) or a related species. The active ingredient causing the intense burning pain is the alkaloid capsaicin (cap-SAY-sin). So potent is the alkaloid that one millionth of a drop can be detected by the human tongue.

Capsaicin is not broken down during the digestion process--this is why you often get burned several hours later after dining on chile peppers. Like other alkaloids in the chemical arsenal of plants, capsaicin may serve to discourage mammalian fruit predators. Botanists believe that birds are immune to the burning sensation of capsaicin, and may serve to disperse the seeds. Capsaicin may prevent hungry mammals from devouring the fruits, so that they can be eaten by fruit-eating birds who are attracted to bright red fruits. Passing through the bird's digestive tract relatively unharmed, the small seeds are dispersed to other favorable regions.

The alkaloid capsaicin from chile peppers is also used in topical analgesic creams for the relief of arthritis, tendinitis and muscular strain. The warm sensation provides a soothing counterirritant that relieves pain and deep tissue inflammation.

The historical spice pepper of the Middle Ages refers to the black pepper (*Piper nigrum*) which belongs to a completely different plant family (chile peppers belong to the tomato family or Solanaceae while black peppers belong to the Piperaceae). The dried, black, seed-bearing berries (called peppercorns) are ground up and used as seasoning.

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