

Hot Sauce & Guacamole

The secret of hot stuff!!!

It is all about... capsaicin. Capsaicin is a pungent compound that binds to your pain receptors (nociceptors). While similar to compounds found in vanilla, ginger and pepper, capsaicin stimulates a totally different center in the brain and brings the pain.



INGREDIENTS

Mango-Pineapple Hot Sauce

- Mango
- Pineapple
- Ginger
- Habañero
- Sugar & Salt
- Lemon & Lime Juice
- Cumin
- Xanthan Gum

Due to their high levels of capsaicin, habañeros are often matched with sweeter tastes including



Xanthan gum is a complex polysaccharide and a little of it goes a long ways to make your hot sauce thick and stick to those chips.

The citric acid in lemon and lime juice adds some sour flavor and inhibits browning of the fruit.

Why Guacamole?

Capsaicin is non-polar/hydrophobic and therefore, not water soluble. Washing down hot food with cold water just spreads capsaicin to more pain receptors. Oily or fatty foods like whole milk will dissolve and help remove the offending compound. Avocados are high in fats and provide a tasty way to get the capsaicin out of the way!

Directions

Lose the seeds

Most of the capsaicin is in the placenta not the seeds. The thick coating on the seeds has alkaloid compounds which are bitter and will detract from your hot sauce.

Slice and remove the pepper seeds, but be careful to leave the placenta (the ribs) behind. Blanch the fruit of the pepper in boiling vinegar. Reserve the cooled vinegar.

Add all ingredients except xanthan gum (2 cups mango, 1 cup canned or fresh pineapple with some juice, ¼ tsp cumin, 1 tsp sugar and 1 tbsp molasses, ½ cup each lemon and lime juice, 1 tsp ginger and salt to taste). Blend or puree until smooth.

Add vinegar, salt, lime or lemon juice to taste. If you desire more heat, add more peppers.

Sprinkle ½ tsp xanthan gum and pulse mix with immersion or stand blender. Allow the gum to hydrate before adding more. It may take more than an hour to fully thicken...

Hot Sauce Basics

A simple hot sauce is made by blending hot peppers with vinegar. Fermentation helps extract and create new flavors. Tabasco hot sauce is made this way.

Acid Helps

The lowered pH of hot sauce due to lemon and lime juice as well as vinegar acts as a preservative. Few strains of bacteria are able to easily grow.

Make it Stick

Most sauces will separate over a short period of time. Xanthan gum (a flavorless polysaccharide made by fermentation of three simple sugars), will bind water and "hold" water in place.

Guacamole

INGREDIENTS

- Avocados
- Juiced Lime
- Salt
- Cayenne
- Cumin
- Red Onion
- Roma Tomatoes
- Cilantro
- De-seeded Jalapeño or Poblano
- Garlic Clove, Minced



More Acid

Once opened, the avocado releases polyphenol oxidase. This enzyme reacts with oxygen and the phenols from the cell wall to create a brown, bitter product. This "little bit of nasty" is an antimicrobial defense mechanism of the fruit. Besides tasting good, lime juice helps slow down the enzyme activity.

More Pungent

When speaking about food, "pungent" means "heat" or a "strong unpleasant flavor or aroma". The heat from peppers is one kind of pungency, but garlic and onions also contain pungent compounds. Onions and garlic produce sulfur containing compounds that do not bind to the pain receptors.

Skin and scoop the avocado flesh and immediately mix with lime juice. Mash the mixture but do not blend to a smooth paste. Allow the "chunks" of avocado to hit your pallet and create a contrast to the blended paste mixed with the spices.

Add salt, cumin and cayenne and fold in with onions, tomatoes, cilantro and garlic.

Serve after one hour at room temperature.

Did you know?

Salsa inhibits microbes

Many of the compounds used to make salsa have antimicrobial properties. *Saccharomyces cerevisiae*, *Staphylococcus aureus*, *Bacillus cereus*, and *Escherichia coli* are all inhibited by one or more of the components in most salsa.

This helps the popular garnish act as a preservative while tasting... amazing



Salsa means Sauce

There really is no difference between hot sauce and salsa. Salsa translates to sauce in Spanish. Thus all sauces are salsas.

BUT... picante means "hot spicy"

Since the early 1990's salsa is the most sold and used condiment in the United States - even more than ketchup!