## **Herbs and Spices**

Our Health and Temperance topic for today is "Herbs and Spices."

In the first Health and Temperance presentation on the central bullseye which God first told Adam and Eve immediately following their creation, we read in Genesis 1:29 that . . . God said, "See, I have given you every herb that yields seed . . .; to you it shall be for food. *Genesis 1:29 NKJV* 

However, if we are to follow the counsel of God regarding herbs and spices, we need to understand His definitions of herbs and spices. In the Bible, a herb is a non–woody plant with seasonal foliage and varying expectation of life in the root.

The following herbs are mentioned in Scripture:

- Barley. Ex 9:31; 2 Sa 14:30.
- Beans. 2 Sa 17:28.
- Bulrushes. Ex 2:3; Isa 58:5.
- Cucumber. Nu 11:5; Isa 1:8.
- Flax. Ex 9:31.
- Garlic. Nu 11:5.
- Gourds. 2 Ki 4:39.
- Leeks. Nu 11:5.
- Lentiles. Ge 25:34.
- Mallows. (Okra) Job 30:4.
- Millet. Eze 4:9.
- Melon. Nu 11:5.
- Onions. Nu 11:5.
- Rye. Ex 9:32.
- Tares or Darnel. Mt 13:30.
- Wheat. Ex 9:32; Jer 12:13.

On the other hand, spices are aromatic vegetable substances (oils, sap, leaves). The following are mentioned in Scripture:

- Aloe. Song 4:14.
- Anise. Mt 23:23.
- Calamus. Song 4:14.
- Cummin. Isa 28:27; Mt 23:23.
- Fitches. Isa 28:25, 27.
- Flag. Ex 2:3; Job 8:11.
- Hyssop. Ex 12:22; 1 Ki 4:33.
- Mandrakes. Ge 30:14; Song 7:13.
- Mint. Mt 23:23.

- Myrrh. Song 4:14.
- Reeds. Job 40:21; Isa 19:6.
- Rushes. Job 8:11.
- Saffron. Song 4:14.
- Spikenard. Song 4:14

What is cinnamon? A herb or a spice? An aromatic spice. It comes from the bark of a tree.

"Spices are aromatic vegetable substances . . ." The New Bible Dictionary

"A plain diet, free from spices, . . . would prove a blessing to you, . . ." Counsels on Diet and Health, Ellen G. White, page 83

"We bear positive testimony against . . . spices, . . . and all exciting substances used as articles of food." Counsel on Diet and Foods, Ellen G. White, page 468

"Do not eat largely of salt; give up bottled pickles; keep fiery spiced food out of your stomach; eat fruit with your meals, and the irritation which calls for so much drink will cease to exist." Counsels on Diet and Foods, Ellen G. White, page 420

The class of compounds causing pungency in plants like chili peppers is called (kap·sey·uh·sin·oids) capsaicinoids, which display a linear correlation between concentration and the Scoville scale, and may vary in content during ripening. (kap·sey·uh·sin) Capsaicin is the major (kap·sey·uh·sin·oid) capsaicinoid in chili peppers.

The Scoville scale is a measurement of the pungency (spiciness or "heat") of chili peppers and other spicy foods, as recorded in Scoville Heat Units (SHU) based on the concentration of (kap·sey·uh·sin·oids) capsaicinoids, among which (kap·sey·uh·sin) capsaicin is the predominant—but not the only—component. The scale is named after its creator, American pharmacist Wilbur Scoville.

The levels of pungency, in terms of Scoville units are shown in this chart.

Pungency	SHU
Very highly pungent	Above 80,000
Highly pungent	25,000 to 70,000
Moderately pungent	3,000 to 25,000
Mildly pungent	700 to 3,000
Non pungent	0 to 700

Although most modern cayenne peppers are colored red, yellow and purple varieties exist. Most types are moderately hot, although a number of mild variants exist. Most varieties are generally rated at 30,000 to 50,000 Scoville Heat Units, although some are rated at 20,000 or less.

But, please note that the common "black pepper" spice also ranges from thirty thousand to fifty thousand Scoville Heat Units.

Bell peppers are rated at zero and pimento's range from one hundred to five hundred Scoville Heat Units.

Scoville Heat Units	
800,000 to 3,200,000	Pepper X, Carolina Reaper, Dragon's Breath
350,000 to 800,000	Red savina, Chocolate habanero
100,000 to 350,000	Habanero, Scotch Bonnet
10,000 to 100,000	Malagueta pepper, Cayenne pepper, Tabasco pepper, Black pepper
1,000 to 10,000	Guajillo pepper, Jalapeño
100 to 1,000	Banana pepper, Cubanelle, Pimento
0 to 100	Bell pepper

There are other chemical members of the (kap·sey·uh·sin·oids) capsinoids, which includes gingerol—a chemical compound found in fresh ginger—and piperine—the compound which gives black pepper its spiciness.

The body's response to eating spicy hot foods includes:

- The (kap·sey·uh·sin) capsaicin binds to pain receptors on the tongue,
- The brain cools the body by sweating, salivating, and producing mucus,
- · Pain receptors in the esophagus cause a burning sensation in the chest,
- An irritated phrenic nerve may affect the lungs and causes hiccups,
- There will be pain and cramping in the stomach,
- · Digestion rate increases, causing diarrhea, and
- · Perianal burning may occur.

There was a time, not all that long ago, when medical physicians recommended tobacco smoking and chewing to "improve" the health of lungs. Even though there may be no noticeable immediate damage—other than turning green when first inhaled—we now know that there is a definite long term physiological damage to the body including cancers of the lungs and even other organs.

Today, in order to avoid the stigma of tobacco smoking, our young people are encouraged to try inhaling the heated vapors of various oils, plant leaves, and hallucinogenic chemicals. We have seen, in some cases, even among young, healthy children, severe, sometimes fatal, immediate physiological damage. The long term effects are likely—but not yet proven—to be similar to those of smoking tobacco.

Similarly, alcohol ingested as a drink, has possible negative effects on the body and probably long term effects as well including overdose poisoning, heart attacks, accidents, mental incompetence, and even cancers.

Hallucinogenic drugs, whether smoked or injected, have similar physiological effects to those of alcohol but at a much greater risk of occurrence.

So, despite the demonstrated and obvious physiological hazards of these four substances, people continue to deny the danger and participate in the experimentation. The situation is similar with regard to spices. The physiological damage due to ingestion of spices is known but

denied. The desensitization of nerves by spices urges the ones who are indulging in them to continually seek for hotter and even hotter sensations. Like the proceeding four substances, the long term physiological damages are not yet recognized but are highly probable.

"The natural spicy substance, (kap·sey·uh·sin) capsaicin, has historically been known for its topical use. (kap·sey·uh·sin) Capsaicin, once applied to the skin, causes a brief initial sensitization followed by a prolonged desensitization of the local pain nerves." Capsaicinoids in the treatment of neuropathic pain: a review, *John F. Peppin and Marco Pappagallo, Ther Adv Neurol Disord. 2014 Jan; 7(1): 22–32* 

When I was a teenager, I would arise early—four in the morning—and walk a mile to the local YMCA. Afterward, I would take a long, hot shower. The longer I showered, the cooler the water felt I assumed that the water heater was running out of hot water. But, later, I realized it was not the water temperature that was degrading but, rather, the desensitization of the nerves in my skin.

Certainly, not everyone who indulges in eating fiery spicy foods will be affected the same but still it can be a slippery slope.

But, I have discharged my duty to remind you what the Word of God has recommended for your diet in the beginning and what the Testimonies of Jesus have repeated here near the end of this world of sin.

Thank you for your attention.