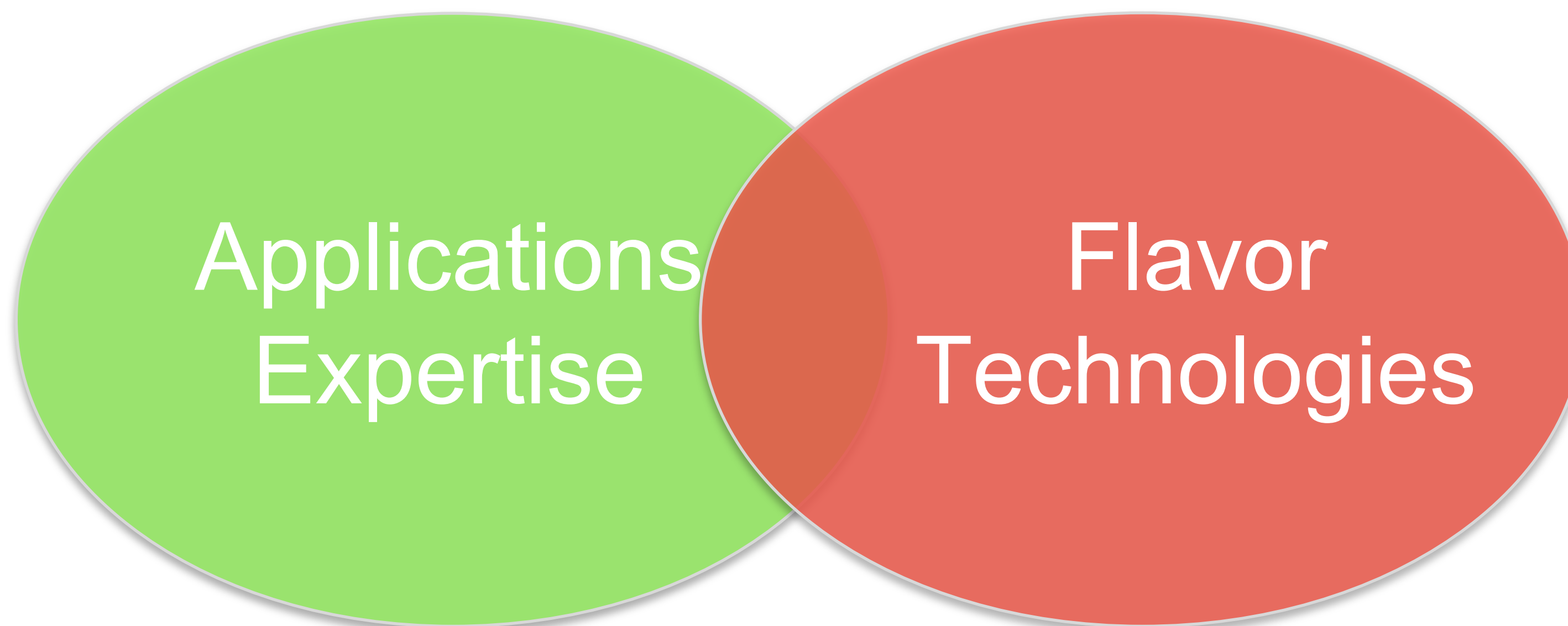






A POWERFUL COMBINATION



CHEMICALS — SMELL, TASTE, STRUCTURE



**Artificial
Flavors**

vs

**Natural
Flavors**

THERE ARE CHEMICALS IN EVERYTHING WE EAT

ALL FOODS ARE MADE UP OF CHEMICALS, WHETHER THEY OCCUR IN NATURE OR ARE MADE IN A LAB.

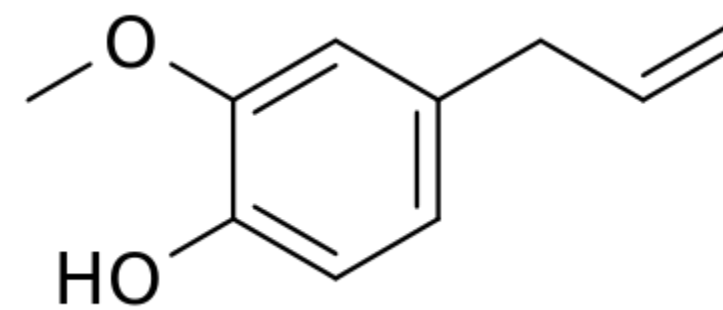
THAT MEANS EVERYTHING WE SMELL OR TASTE IS A RESPONSE TO CHEMICALS.



CLOVES



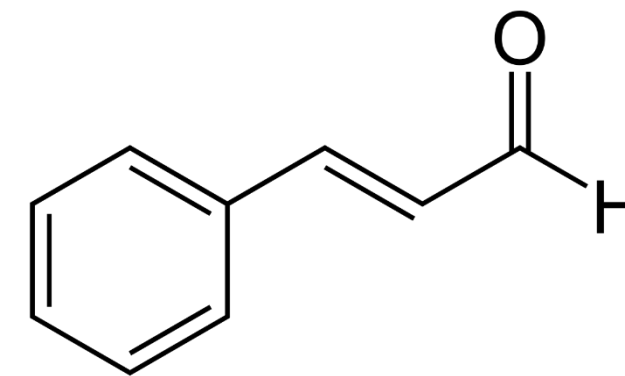
The characteristic smell of cloves, for example, comes from one chemical called eugenol.



CINNAMON



Cinnamon, which is just the dried inner-bark of specific trees, gets its aroma and flavor from the compound cinnamic aldehyde.

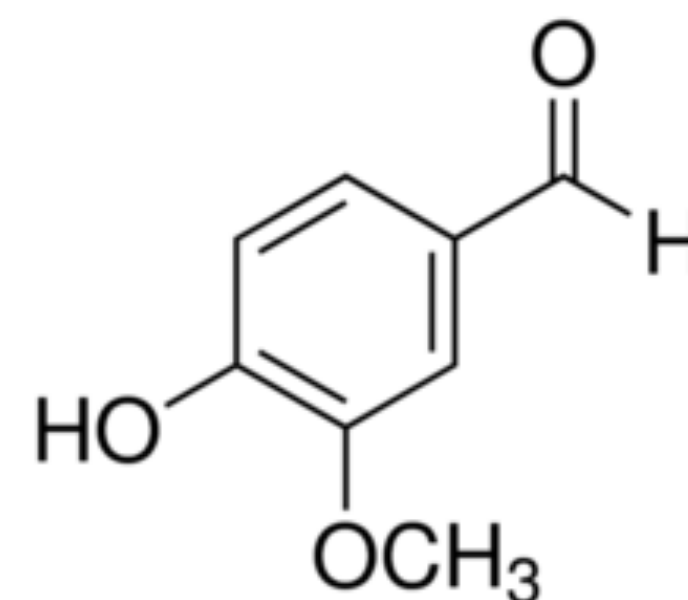


VANILLA



In nature, vanillin comes from an orchid. The process of extracting this pure, natural chemical is extremely lengthy and expensive.

The compound vanillin is responsible for the flavor and smell of vanilla. So scientists found a way to make a synthetic version of vanillin in a lab.



BOTH ARTIFICIAL AND NATURAL FLAVORS CONTAIN CHEMICALS

What is the difference?



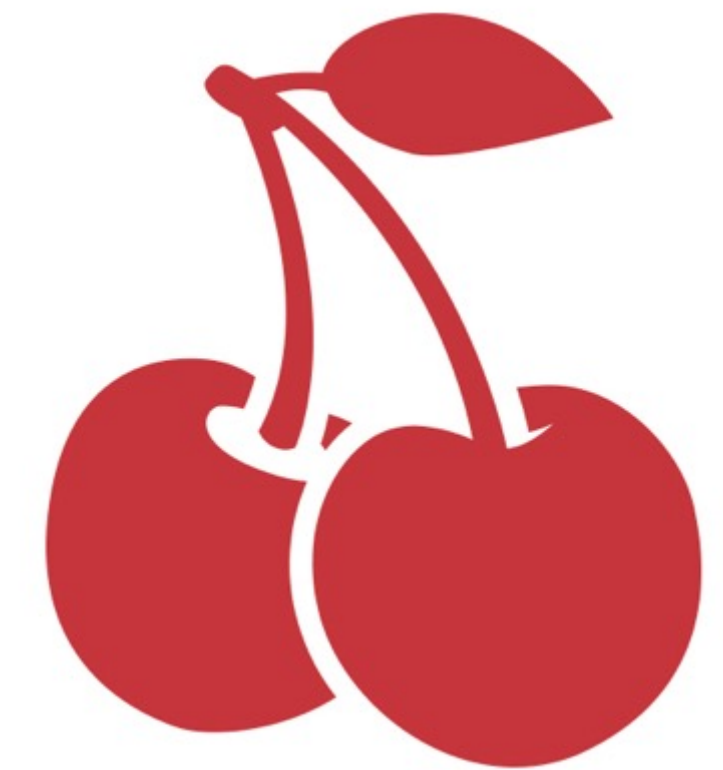
THE DISTINCTION BETWEEN NATURAL AND ARTIFICIAL FLAVORS IS THE SOURCE OF CHEMICALS

**Natural flavors are created from
anything that can be eaten**



OFFICIAL FDA DEFINITION OF NATURAL FLAVORING

“Natural flavor is the essential oil, oleoresin, essence or extractive, protein hydrolysate, distillate, or any product of roasting, heating or enzymolysis, which contains the flavoring constituents derived from a spice, fruit or fruit juice, vegetable or vegetable juice, edible yeast, herb, bark, bud, root, leaf or similar plant material, meat, seafood, poultry, eggs, dairy products, or fermentation products thereof, whose significant function in food is flavoring rather than nutritional.”



ARTIFICIAL FLAVORS COME FROM ANYTHING THAT IS INEDIBLE



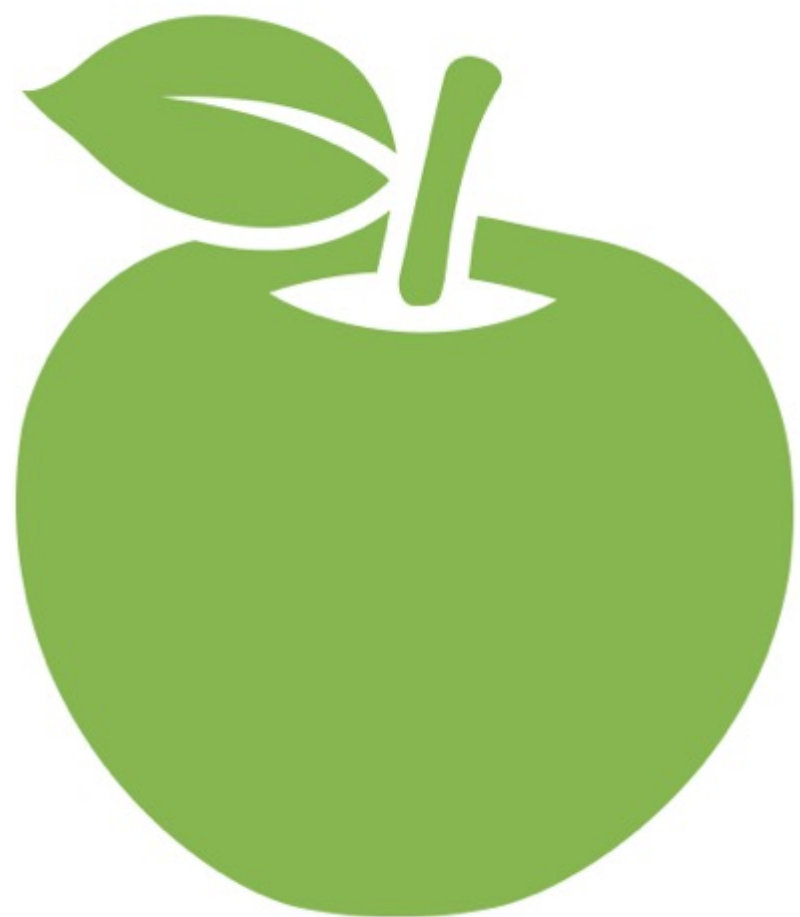
- For example, from petroleum that is processed to create chemicals of flavorings
- For the FDA, the definition of an artificial flavor is any substance that does not meet the definition of a natural flavor

ARTIFICIAL VS NATURAL

Most times a chemical flavoring can be made from either natural or artificial sources — the resulting molecule is the same, but the route to making is different



WHICH ARE “SAFER” OR
“BETTER” FOR YOU,
ARTIFICIAL OR NATURAL
FLAVORS?

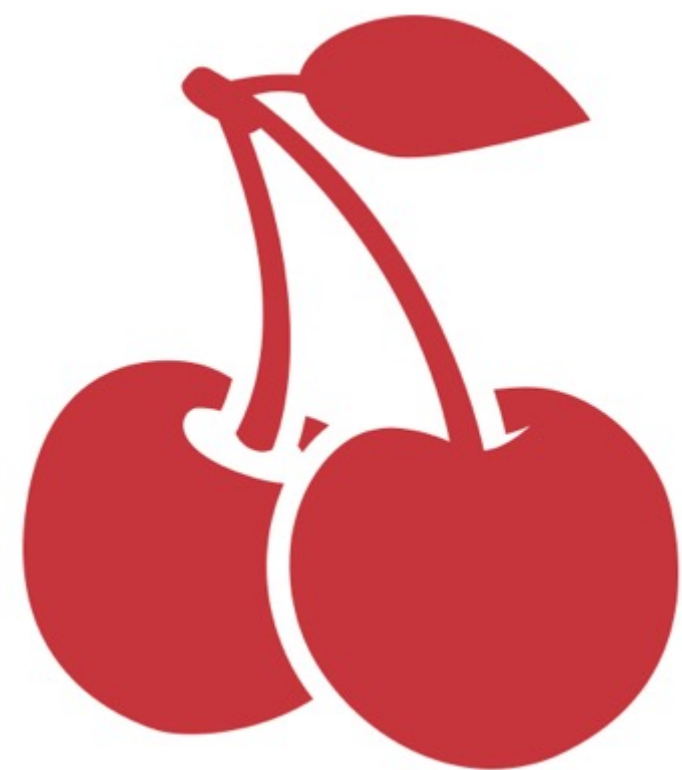


Probably not what you think.

SINCE THE CHEMICALS FOR NATURAL FLAVORS ARE DERIVED FROM ORGANIC SOURCES, THEY CAN CARRY A HIGHER RISK OF CONTAMINATION.



Not that it is slowing down interest in natural flavors.... On the contrary; demand for natural flavors is expected to continue to grow.



WHY USE ARTIFICIAL FLAVORS AT ALL?

Synthetic chemicals that make up artificial flavors generally cost less to produce than finding and extracting the chemicals from natural sources.

THE MAKING OF A NATURAL FLAVOR : COLA



KEY INGREDIENTS

- Lime Oil
- Lemon Oil
- Cassia Oil
- Orange Oil
- Clove Oil
- Ginger Oil
- Nutmeg oil
- Vanillin from Vanilla Extract

THANK YOU

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