

Weber Flavors Masking Flavors

"A Spoonful of Sugar Helps the Medicine Go Down..."

Many food, nutraceutical, and pharmaceutical **products** have **undesirable flavor profiles**, most often due to bitter compounds inherent in proteins, vitamins & minerals, and medicinal components.

The **challenge for Weber's flavor chemists** is to build a flavor system that not only **decreases the impact of the undesirable** flavor notes, but **successfully delivers the desired flavor profile** at the same time.

Both "**Taste Suppressants**", which function by competitively binding taste receptors on the tongue, and "**Taste Modifiers**", which do not alter the actual taste mechanism of the tongue, but instead try to out-compete the undesirable perception by employing other flavors to cover it, **can be used to create a masking system**.

At Weber Flavors, building a flavor system that successfully masks an undesirable trait is a **two-step process** for our chemists. They must first attempt to **mask the undesired characteristic by nesting various antagonistic compounds together** that counteract the perception of the undesired flavor. For example, sweetness potentiators tend to directly oppose bitter flavor notes.

The second challenge is then to **build a flavor profile** on top of this neutralized base **that can still be effectively perceived by the taster**.

Often a much stronger flavor profile is needed, and certain notes that would seem unbalanced in an unmixed product (high acidity, for example) are required at unusual levels to successfully balance a flavor profile in a well-masked product.



Protein Masking – achieved most often by using sweetness potentiators, and also components that increase sensations of creaminess, or even touch of salt, all of which can amp up sweetness perception and reduce bitter sensations.

Medicinal Bitterness - generally requires nesting together strong sweetness potentiators, components to balance astringency, and ones to provide creaminess. Medicinal bitterness can be one of the most challenging to mask and often requires employing multiple strategies in Weber Flavors' toolkit.



Vegetal Flavors – those most often encountered in plant-based protein systems – require masking the protein bitterness, adding flavor compounds that act as antagonists to the vegetative flavors, and ingredients that add creaminess to oppose astringency.

The most simple system might contain a single component to mask an undesirable flavor note, while a more complex flavor system may require the nesting of a whole arsenal of flavor components to successfully mask an undesirable trait and also provide a desirable finished flavor.

There is no single magic bullet when it comes to masking flavor systems. Weber Flavors can customize these systems by the application and the type of masking desired.

Weber Flavors custom builds a system to mask undesirable flavor notes while enhancing the desirable ones.

