



**NUTRAVATE™**

**BY COMPOUND SOLUTIONS**

*Flavoring and Sweetening -- Naturally*

# Telling a Natural Story

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*Natural Flavoring and Sweetening*

# Naturals

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1. The Formulation Formula
2. A Common Story -- "Let's Go Natural"
3. The Tools of Natural Sweetening
4. Time to give it a try

## *The Formulation Formula*

**Before we can even talk about a flavor, we need the story (i.e. target market, brand beliefs, ...)**

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- The story leads to the formula
- The formula leads to the flavor
- Once the formula is chosen\* you can then get serious about flavor, the flavor system includes: Sweeteners, acids, gums, salts and colors

\*Base / Active ingredients in the formula

**So, What's Our Story?**

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*Scenario One – Let's Go Natural*

**Target market wants a “natural” story.  
Natural, non-GMO, allergen-free, etc.**

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- Natural stories require not only natural flavors (a relatively easy swap), but natural sweeteners as well.
- Here's where the story gets interesting.

*Story choices have consequences*

# Trade Offs Happen

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- Natural sweetening options limit formula (base ingredient) options. These trade offs are what make product development interesting.
- Ashwagandha vs theanine; BCAAs vs betaine

*Many of today's functional-food / nutrition formulas contain bitter compounds*

# The Problem with Naturals

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- Natural sweeteners (e.g. stevia, monk fruit, allulose, ...) don't cover all bitter notes; in fact, most non-sugar, natural sweeteners are themselves both sweet and bitter (e.g. stevia)
- But there are solutions!



*Four Powerful Solutions*

# Natural Solutions

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**1. Use bitter blockers**

**2. Use combinations of the best natural sweeteners** to cover both the front (initial) and back (later) of the sweetness sensation. This is called "rounding" out the sweetness.

*Four Powerful Solutions*

# Natural Solutions

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3. Use combinations of **acids and gums to mask / reduce** bitterness and make the flavor and sweeteners 'pop' (e.g. sour masks bitterness!)

**4. Adjust the formula** to reduce or eliminate bitter compounds. For example, you can't use Leucine or Rhodiola and hope to make a lemon-lime flavored product.

*What exactly are Bitter Blockers?*

**Bitter blocking** ingredients reduce or **block the bitter taste** of active ingredients and can enhance the overall flavor profile

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Traditional **bitter blockers** attempt to trick the taste bud response by blocking the bitter **taste bud receptors.**

*What are Bitter Blockers?*

# Flavors with Superpowers

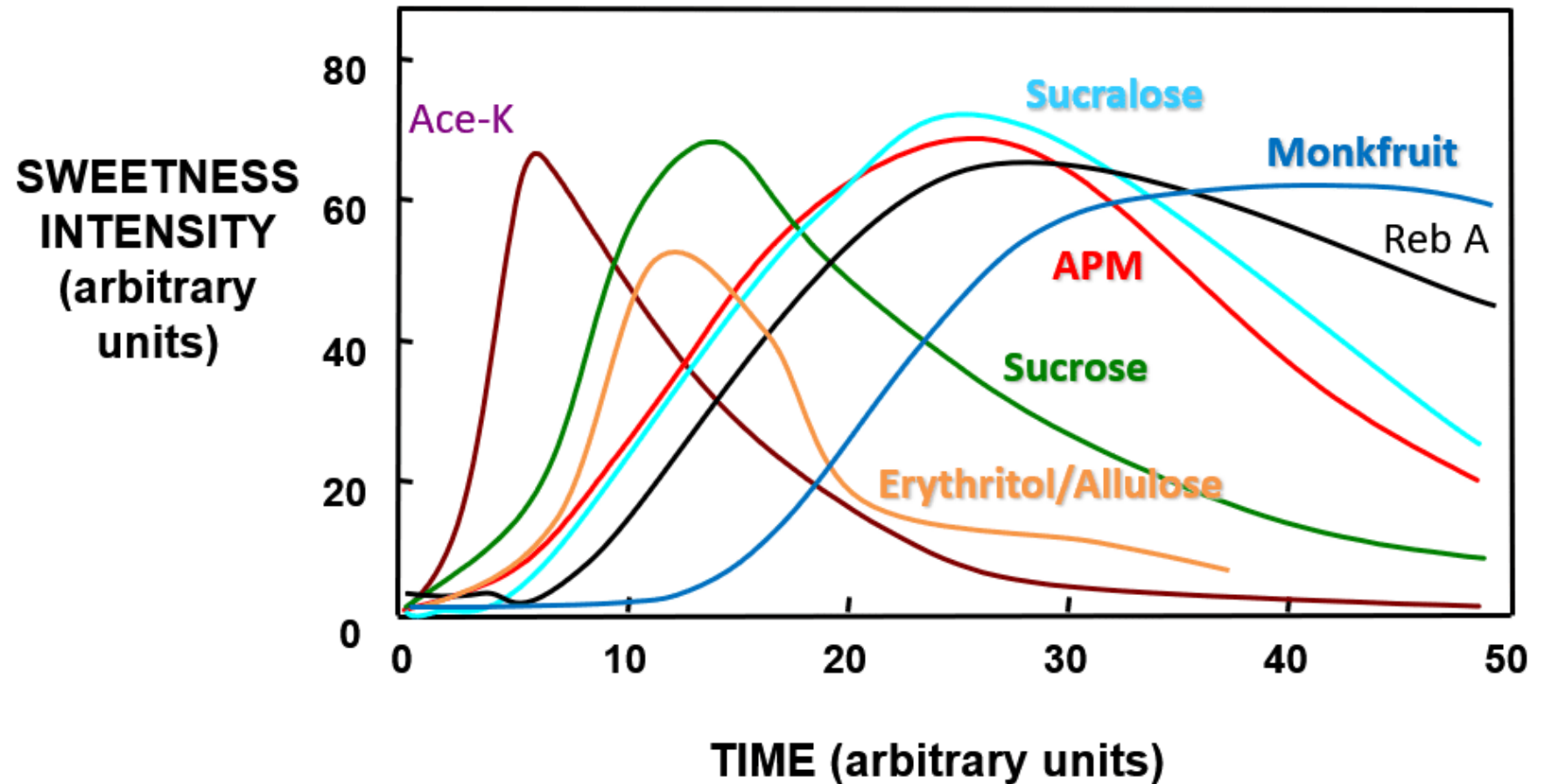
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A **bitter blocker flavor** can include extracts from licorice, monk fruit, or stevia that meet the definition of a natural flavor. These are often called FMP (Flavors with Modifying Properties).

# Sweetener Combinations & Intensity Profiles

## NOTE:

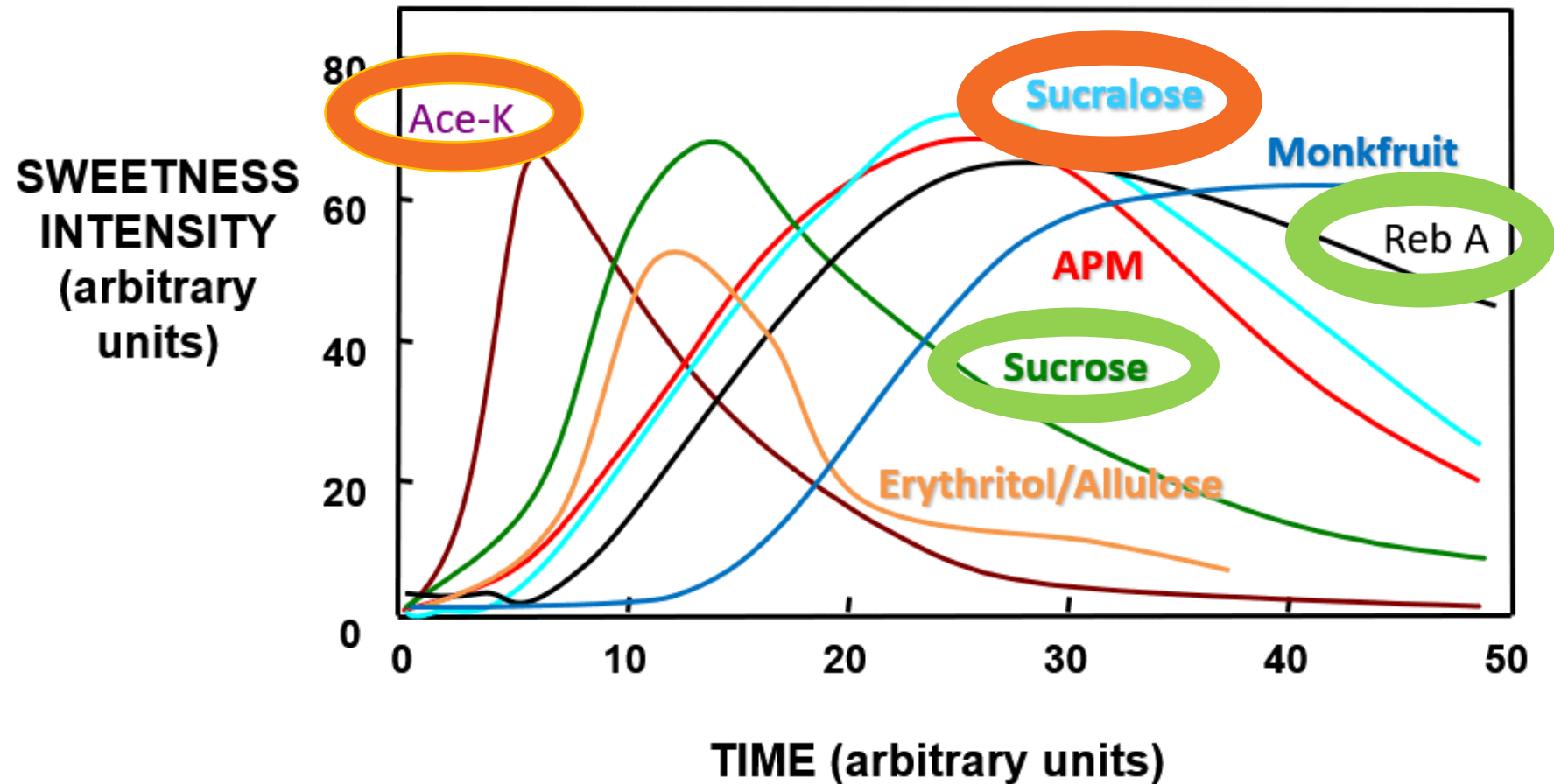
Sugar has the best palatability to humans, so mimicking sugar is the ultimate goal of all sweetening systems.



# Sweetener Combinations & Intensity Profiles

## NOTE:

Sugar has the best palatability to humans, so mimicking sugar is the ultimate goal of all sweetening systems.



# Taste Sweetening Peaks for Yourselves

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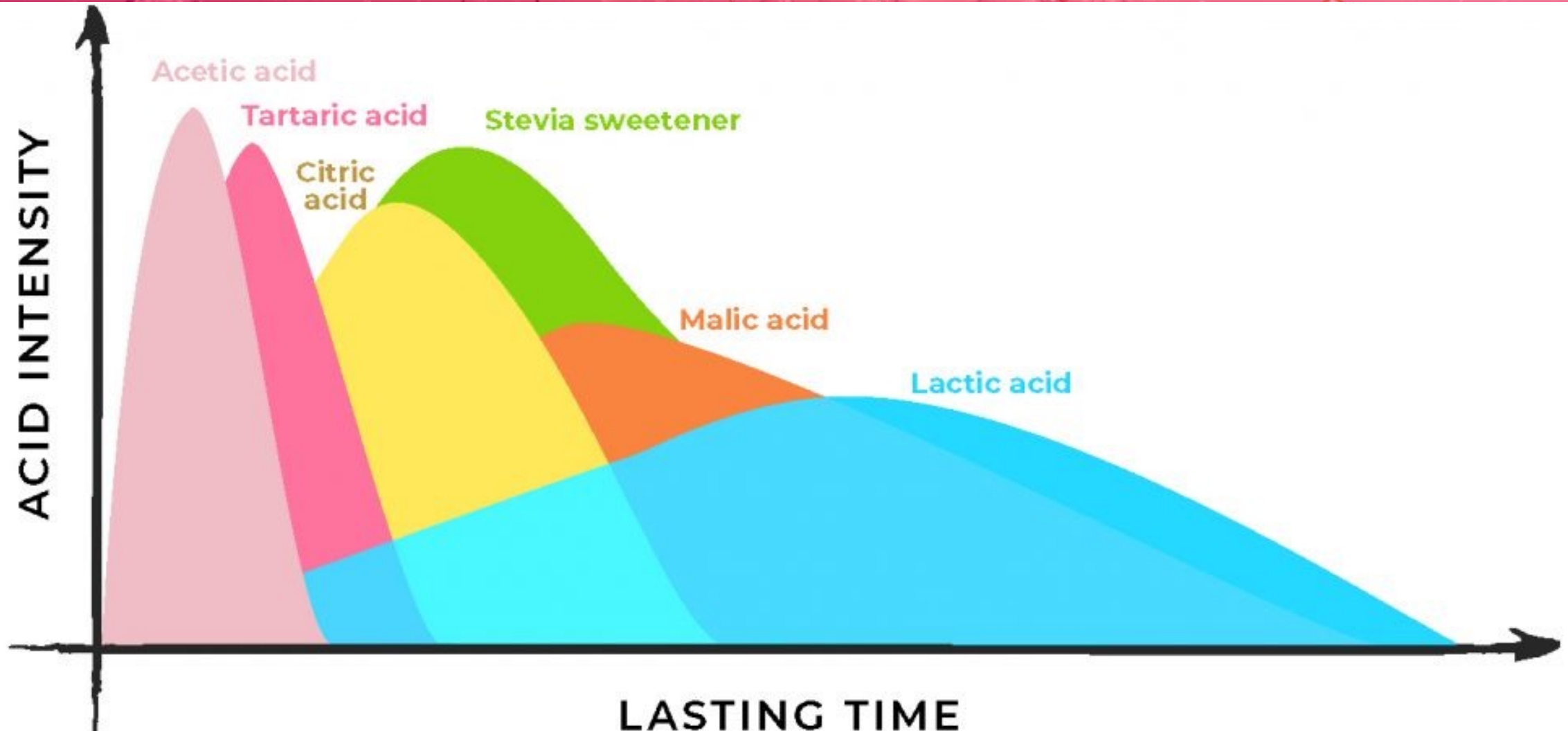


Swedish Fish vs. Natural Sweetened Red Fish



Sour Patch Kids vs. Naturally Sweetened Sour Kids

# Acidic Taste Profiles







# Activity

# Taste Testing Natural Flavor Systems

*Activity –Taste Testing A Hydration Product*

Hydration is one of today's hottest trends, and customers want naturally flavored and sweetened hydration products. <sup>TM</sup>

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What we will be doing:

Testing a hydration beverage with a new electrolyte with weight management benefits called Metabolyte<sup>TM</sup>

*Taste Testing*

# Step One

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- Pour 12oz of water into your shaker cup
- Add / Mix one packet of Metabolyte™ product hydration base in your shaker cup
- Pour samples for your table to taste...
- Reaction?

*Taste Testing*

# Step Two

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1. In a new shaker bottle, add a new packet of Metabolyte base, AND a the “Rocket Pop” flavor system packet\*\*.
2. Give it a good shake & share with others

\*\*The “Rocket Pop” flavor system packet has the following:

- Bitter Blocker
- Citric Acid
- Malic Acid
- Blue Raz NAT Flavor
- OnoSweet™ (fermented Reb M)

*Taste Testing*

# Step Three

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1. In a new shaker bottle, add a new packet of Metabolyte base, AND a the “White Peach” flavor system packet\*\*
2. Give it a good shake & share with others

\*\*The “White Peach” flavor system packet has the following:

- Bitter Blocker
- Citric Acid
- Malic Acid
- Peach NAT Flavor
- OnoSweet™ (fermented Reb M)

*So, what did we learn?*

# Takeaways

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Natural stories require natural solutions.

We have tools to make natural sweetening work for many, many active ingredient bases.

Go tell your story.

Product Development and Flavor

# Expertise

- **Beverages** – Powder, Liquid, Carbonated, Alcoholic, Aseptic
- **Functional Foods**
- **Bar**
- **Gummies**
- **Confectionary**



## Fantastic Flavors For *Any* Application

We can help you find the best flavor form for any of your products to make sure the only thing you notice is how good it tastes.

Try our favorite flavors in your new liquid library.



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# Thank You

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Salt Lake City, Utah