

Reformulation Readiness Program™

# Synthetic vs. Natural Color Comparison Guide

*Find the right natural replacements for your formulations with the stability, shade, and flavor performance your consumers expect.*



Not all natural colors are created equal, and they certainly don't all perform the same way in dairy and frozen applications.

For more than 25 years, Ever Fresh Fruit Co. has been helping brands formulate with clean-label fruit and botanical pigments that hold their vibrancy and flavor.



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*This guide shows where each synthetic color has a proven natural match, **so you can make confident reformulation choices from the start.***

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# Synthetic vs. Natural Color Comparison



Synthetic Color	Natural Alternatives	Best For	Watch-Outs
<b>Red 3 / Red 40</b>	Beet juice concentrate, Purple carrot extract, Black currant juice, Radish extract	Neutral to acidic pH dairy or frozen desserts	Some reds can brown over time; test for light & heat stability
<b>Yellow 5 / Yellow 6</b>	Turmeric extract, Annatto, Safflower	Neutral to slightly acidic pH	Turmeric may fade in light; annatto may shift in high heat
<b>Green 3</b>	Spirulina + Safflower, Spirulina + Turmeric blends	Minimal heat exposure post-coloring	Layered colors may behave unpredictably in acidic environments
<b>Blue 1 / Blue 2</b>	Spirulina extract, Gardenia blue, Butterfly pea flower extract (acid-stable forms available)	pH-specific applications	Spirulina is heat-sensitive; gardenia blue needs controlled storage

## How to Use This Table

- Identify the synthetic colors in your current SKUs.
- Cross-reference potential natural alternatives.
- Check “Best For” to ensure compatibility with your processing and pH.
- Review “Watch-Outs” for risks to test during pilot runs.

# Color System Selection Tips



Align color selection to **final product pH**—run stability tests early.



Test for **processing tolerance**, especially heat and shear stability.



Validate **light stability** for retail-ready products with clear packaging.



Ensure **supply chain reliability**—source from validated suppliers.

**Tip:** This guide is a starting point. For a fully customized color mapping that accounts for your processing, ingredient profile, and sensory targets, schedule your **Natural Color Mapping** consultation through the **Reformulation Readiness Program™**.

**Request Your Custom Color Mapping Session**

## Why Ever Fresh Fruit Co.

For more than 25 years, we've done one thing exceptionally well—help brands bring clean-label, fruit-forward products to life without compromise.

Formulating with natural ingredients is part of our DNA. It's why leading dairy and frozen dessert brands trust us to solve their toughest formulation challenges, whether it's replacing synthetic colors and flavors, launching new SKUs, or protecting the taste and appearance their customers love.

From our first conversation to your final product launch, you'll have a partner who understands your challenges, speaks your language, and delivers solutions that work in the real world.

*Let's create your next success story together.*

