

# TERPS



Evolve your West Coast IPA using stronger terpene biotransformation.

- More hop aroma impact through enhanced terpene biotransformation (citrus, mango)
- Efficient fermentation, high attenuation

## How did we do it?

We used adaptive laboratory evolution to train up an American ale strain to biotransform more terpenes (40% more beta citronellol production), lending stronger citrus and mango character in the final beer. Terpene compounds are highly "survivable" and increase shelf life aroma perception.

In particular, this strain pairs well with West Coast IPA hops (think Centennial, Chinook, Simcoe, and Citra) where it will transform geraniol (floral) into citronellol (citrus/lemongrass) and boost overall aroma impact of hops. We also find that terpene biotransformation combined with myrcene-rich hops and yeast esters produces a distinct mango perception in IPAs.

## Key Characteristics:

<b>Attenuation:</b>	77-87%
<b>Temperature Range:</b>	16–22°C (61–72°F)
<b>Diastatic (STA1+):</b>	No
<b>Fermentation Rate:</b>	Medium-High (at final gravity in 4-6 days)
<b>Flocculation:</b>	Medium (easy to harvest and repitch)
<b>Alcohol Tolerance:</b>	Medium (10%)
<b>Phenolic:</b>	No
<b>Biotransformation:</b>	High (terpene favouring)
<b>Flavour Profile:</b>	Citrus, Mango, Orchard Fruit
<b>Suitable Beer Types:</b>	Excellent strain for West Coast IPAs and other hoppy styles. Can be used in hazy IPA production.



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## Best Practices:

To maximize citrus impact, choose hops high in geraniol such as Centennial, Cascade, and Chinook. To maximize mango flavour, choose hops high in myrcene like Citra, Simcoe, Mosaic, Strata, HBC586, and Amarillo.

*Suggested combination for citrus:* Centennial/Chinook and Citra in whirlpool, Citra in dry hop.

*Suggested combination for mango:* Strata, Amarillo and Chinook/Centennial in whirlpool, Mosaic and Strata in dry hop.

To maximize impact in West Coast IPAs, we recommend loading up the whirlpool with hops rich in geraniol and linalool, and dry hopping post-fermentation with highly aromatic hops such as Citra and Simcoe. We recommend using the "cool pool" technique of a lower-temperature whirlpool to maximize whirlpool hop impact.

