

Why the Cannabis Industry Can't Quit Its THC Obsession

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A Label Everyone Knows Is Wrong But Still Required

Orville Bovenschen, president of Pure Sunfarms, admits something most cannabis industry insiders quietly know: every flower label his company prints is misleading.

It's not because of sloppy testing or intentional deception. Instead, it's because Canadian cannabis law requires flower products to be labeled with a single "total THC" percentage despite clear evidence that THC content varies widely within the same plant.

A recent study, funded by Pure Sunfarms and published in *Nature*, showed that THC content can fluctuate by as much as one-third even in identical flowers from the same plant. The problem is baked into the biology of cannabis – yet regulations demand an exact figure.

The solution, researchers suggest, is a more accurate labeling range for example, "THC between 18%–24%." But the law hasn't caught up, and until it does, inaccurate labels remain mandatory.

The Cost of Potency Shopping Across the Supply Chain

Despite decades of research showing that THC alone does not determine cannabis quality or effects and despite growing recognition of terpenes, minor cannabinoids, and the entourage effect THC percentage remains the industry's dominant selling metric.

This has ripple effects across the entire supply chain:

- **For cultivators** – Strains with exceptional terpene profiles or unique medicinal potential are rejected because they test "too low" in THC.
- **For retailers** – Buying decisions are made based on THC scores, often sidelining quality in favor of potency.
- **For consumers** – Shoppers fixate on the THC number, even if it's a poor predictor of experience.

At Pure Sunfarms, Bovenschen says the correlation is undeniable: every 1% THC difference translates into about a 5% change in sales. And there's a hard market threshold, if flower doesn't hit 25% THC, it often won't sell, no matter how good it is.

Why the THC Habit Is Getting Stronger, Not Weaker

You might expect consumer education and evolving tastes to reduce THC fixation. But according to industry observers, it's becoming more entrenched.

Economic pressures are partly to blame. As consumers face higher costs for essentials like groceries and rent, many shop for cannabis the same way they shop for value liquor seeking the "strongest bang for the buck."

The result is a THC arms race. Products like infused pre-rolls, sometimes packed with hash oil and THCA diamonds to hit a market-friendly 50% potency, can end up nearly unsmokeable yet they sell.

What the Study Actually Found About THC Variability

The Pure Sunfarms-funded study analyzed 12 batches of eight commercially relevant cultivars, with up to 100 grams randomly sampled from each. Researchers tested buds from the top, middle, and bottom of plants in three of the batches.

The findings were striking:

- **Top vs. bottom buds** – THC content varied by 4.7% to 6.1% absolute difference, meaning if a top cola tested at 20% THC, the bottom buds could test at just 13.9%.
- **Same cultivar variation** – Even plants grown side by side under identical conditions showed significant differences in THC percentages.

"It is important to be aware of this natural variance when classifying and labelling dried cannabis for both recreational and medical use," the study authors wrote.

In other words: exact THC labeling isn't just misleading – it's scientifically impossible to get right.

The Problem of Lab Accuracy and Inflated Potency

Even if THC content were perfectly uniform across a plant, consumers would still face another obstacle: lab reliability.

In the U.S. legal market, multiple state regulators have suspended or revoked cannabis testing licenses over allegations of potency inflation labs artificially boosting THC numbers to satisfy clients and drive sales.

This means the THC percentage printed on packaging is subject to two layers of inaccuracy: natural plant variation and potential lab manipulation.

Why Regulatory Reform Is the Only Way Out

Breaking the THC obsession will require more than just industry education, it will likely demand changes to cannabis labeling laws.

Some U.S. states have tried modest interventions. New York's Office of Cannabis Management prohibits marketing that promotes THC potency – yet still requires "total THC" to be displayed on packaging.

Critics point out that these mixed signals don't change buyer behavior. With flower often sold in sealed, opaque packaging – and with in-store handling restrictions preventing customers from smelling or inspecting

product – the THC number becomes the only visible quality indicator.

Alternative Approaches and Why They Struggle to Compete

Some cannabis brands and marketers are experimenting with promoting the “experience” rather than a potency score. Jared Misky of branding agency Wick & Mortar says a few brands have leaned into descriptive storytelling, terpene education, and effect-based product lines.

But this is still the exception, not the rule. Price and potency remain the two dominant motivators for most shoppers.

The Path Forward: Education, Transparency, and Realistic Rules

To truly address the THC fixation problem, the industry will need:

1. **Regulatory reform** – Allowing potency ranges rather than single-point percentages.
2. **Improved lab oversight** – To reduce potency inflation and restore consumer trust.
3. **Retail innovation** – More sensory access to flower, so consumers can judge quality firsthand.
4. **Consumer education** – Campaigns that highlight terpenes, minor cannabinoids, and the entourage effect.

Until then, the industry will remain trapped in a cycle where misleading THC labels shape cultivation, retail, and purchasing decisions – even when everyone involved knows better.

The science is clear THC numbers are a flawed measure of cannabis quality. But until laws change, both producers and consumers are stuck playing by rules that reward the wrong metric.

Email: info@cannabisriskmanager.com | Phone: +415-226-4060

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