

# HB 350: Kratom Consumer Protection Act



## Executive Summary

Kratom is a plant in the coffee family native to Southeast Asia, where its leaves have been traditionally ingested for their mild stimulant and pain-relieving properties. In the United States, kratom leaves are often ground and sold in pill or powder form, which users commonly report ingesting as a treatment for pain management and opioid withdrawal. In Missouri, the sale of kratom is legal and there are no state-level requirements for labeling, though St. Charles County restricts sales to those over age 18 and imposes labeling requirements for kratom products. HB 350, the Kratom Consumer Protection Act, would give regulatory power over kratom products to the state, rather than political subdivisions, and require that kratom products include the amount of mitragynine (the active ingredient in kratom) on the label. This bill would also set the purchase age for kratom products to 18 and restrict the sale of kratom products that contain substances other than kratom, including synthetic compounds.

## Highlights

- An estimated **4-5 million Americans have consumed kratom products** at some point in their lives, mainly for their **stimulant and pain relief properties**, and also as a self-administered treatment for opioid withdrawal. However, due to a lack of clinical studies, the **FDA has not approved kratom for any uses**.
- When ingested in large doses, kratom has been shown to induce **symptoms such as agitation, elevated heart rate, and nausea**.
- Testing by the FDA has determined that **some kratom products are adulterated with synthetic alkaloids, opioids, or other non-kratom substances and contaminated with infectious pathogens such as *Salmonella***.

## Limitations

- Large-scale clinical studies of the health-related effects of kratom are lacking. Due to the absence of research on this topic, the potential interactions between kratom and other medications or drugs are largely unknown.

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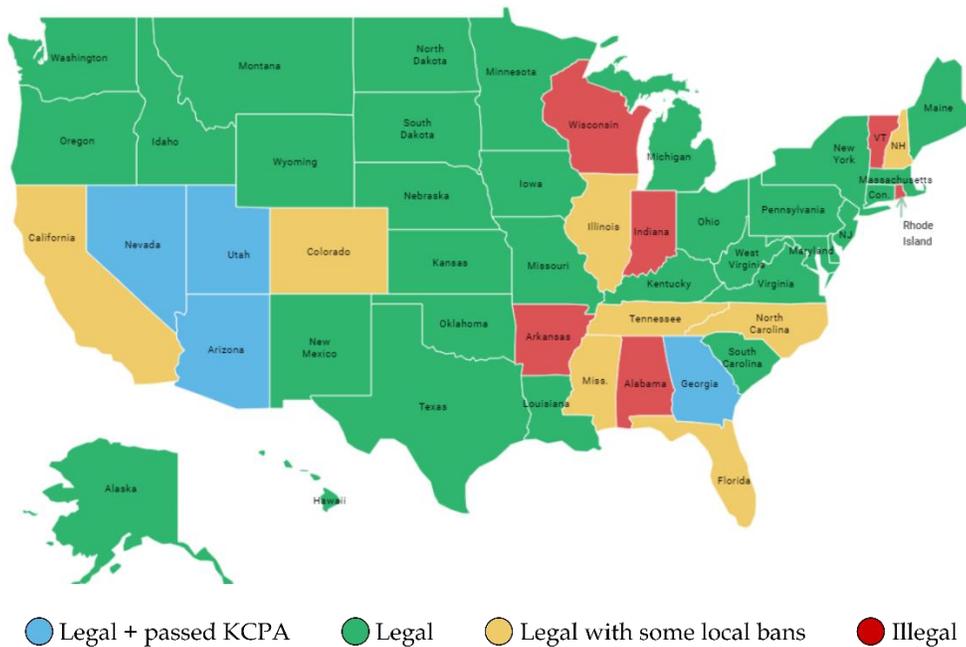
## Research Background

### Reported uses of kratom

A large set of surveys from Southeast Asia and the United States indicates that kratom is commonly ingested in low doses to induce mild stimulant effects, as well as to treat minor aches and pains.<sup>1,2</sup> Kratom users also report using the substance as a treatment for the symptoms of

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opioid withdrawal, such as headaches and nausea. The active ingredient in kratom, called mitragynine, has been shown to activate opioid receptors in the brain, but clinical studies of kratom as a pain reliever or opioid withdrawal treatment are lacking. Due to the lack of clinical evidence surrounding its use, kratom has not been approved for any application by the U.S. Food & Drug Administration (FDA), but is legal for sale under certain conditions in 44 states, including Kansas, Iowa, Kentucky, and Illinois (Figure 1).



**Figure 1: Map of kratom status by state.** Kratom is legal in 44 states, with varying degrees of restriction on its sale. Blue states in the map above have legalized kratom and passed a state-level Kratom Consumer Protection Act, which establishes regulations such as purchase age and labeling requirements. States in green allow the sale of kratom, and states in yellow allow the sale of kratom, but with some local bans. States in red (and Washington, D.C.) have banned the possession and sale of kratom. Map modified from the American Kratom Association (<https://www.amerikankratom.org/advocacy/aka-in-your-state.html>).

### Potential risks associated with kratom use

Reports from poison control centers in the United States indicate that ingestion of large doses of kratom can cause adverse side effects.<sup>3</sup> In 2018, the year when data was most recently available, the US National Poison Data System reported approximately 400 cases of kratom overexposure nationally, with about half of those cases involving ingestion of other substances in addition to kratom.<sup>4</sup> The most commonly reported symptoms reported in these cases are agitation, elevated heart rate, nausea, drowsiness, and vomiting. In the small number of cases where more serious adverse effects such as seizures, cardiac issues, or respiratory issues were reported, kratom was not the sole substance consumed, so it is not yet known whether or how kratom contributes to more serious negative health effects. Deaths have been reported in several cases related to kratom adulterated with substances other than mitragynine, and the FDA has reported detecting opioids

and *Salmonella* in some kratom products.<sup>2</sup> Survey data also indicates that chronic kratom users tend to increase their consumption over time and may develop dependence and exhibit withdrawal symptoms upon stopping kratom use.<sup>2,5</sup> Rigorous population-scale analysis of kratom toxicities and mortalities is currently difficult, as kratom is not commonly tested for, and is often not the only substance found in toxicology reports from poisoning events or deaths.

## References

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