



DISPENSARY TO DOORSTEP

How to optimize last-mile delivery of cannabis in the US

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Legalization of Cannabis in the US:

A Brief Overview

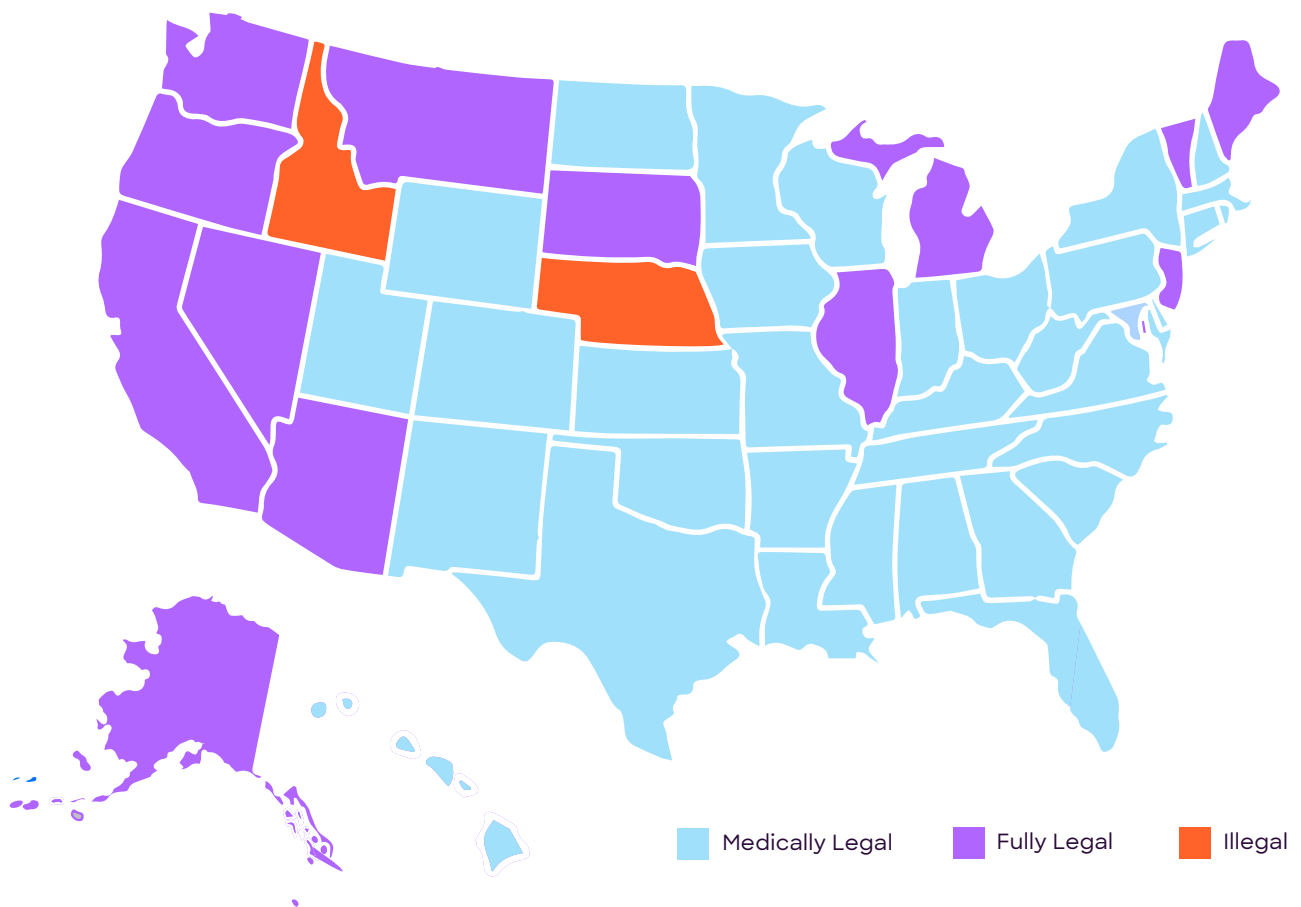
Herb, grass, pot, weed, or Mary Jane, call it what you like. Scientifically known as Cannabis, Marijuana is one of the most popular mind-altering drugs ever to exist and one of the oldest psychoactive agents used by the human race. Over the past few years, several countries around the world, including the United States of America, have recognized cannabis as more than just a recreational drug and have gradually started legalizing its use.

With all states but two legalizing it in at least some form, the United States is embracing weed with open arms. But, because there are so many different laws, attitudes, and regulations on cannabis consumption in the country, it is interesting to understand state-wise usage laws.

Currently, there are 15 states – Alaska, Arizona, California, Colorado, Illinois, Maine, Massachusetts, Michigan, Montana, Nevada, New Jersey, Oregon, South Dakota, Vermont, and Washington, that have legalized the use of marijuana for recreational as well as medical uses. In 2021, more states including New York, New Mexico, and Minnesota are likely to go fully legal.

All other states, except Nebraska and Idaho, have passed at least some legislation allowing legal medical marijuana use, though some states allow only restricted use of cannabis even for medical purposes.

USA's Marijuana Legalization Map 2021



The legalization of marijuana in the United States is broadly divided into three categories:

Fully legal

Fully legal states have removed criminal and monetary penalties for the possession, use, and supply of marijuana for recreational as well as medical purposes by adults above the age of 21. These states do not ask for a doctor's prescription for selling pot.

Legal for medical use

Studies show that marijuana helps with several health conditions. It is most commonly prescribed for conditions such as nausea, vomiting, or weight loss caused by chemotherapy, muscle spasms and stiffness, various pain syndromes, seizures, multiple sclerosis, glaucoma, epilepsy, PTSD, HIV/AIDS, Parkinson's disease, and others. States that have legalized cannabis for medical uses have removed state penalties on the purchase and use of marijuana for medicinal purposes under specified conditions and on producing a prescription by a medical practitioner.

Illegal

In states where it is prohibited, i.e Nebraska and Idaho, the sale and possession of weed are illegal for both medical and recreational use and is subject to a fine or felony, or both based on the quantity possessed by an individual.

The most popular ways of consuming pot are – inhalation by smoking a joint or a vape, through edible consumables like cookies, brownies, or herbal tea, or as a liquid under the tongue. In states where it is partially or fully legal, cannabis is usually sold in government-regulated shops known as ‘dispensaries,’ which are authorized to sell various cannabis products to consumers.

In this white paper, let’s look at how the COVID-19 pandemic has impacted the marijuana industry in the United States, and how digitization of supply chain activities with logistics tech can help cannabis delivery businesses stand out in the market.

COVID-19 and the Marijuana Market – Revenues, Trends, and Customer Expectations

With the outbreak of the COVID-19 pandemic, the usual norms of selling and consuming pot have changed, pretty much like all other consumer goods and essentials.



The marijuana market thrived during the pandemic, as nationwide cannabis sales increased **67%** in 2020

Legal pot sales across the US hit a record of **\$17.5** billion in 2020, a **46%** increase from 2019.

Revenue from cannabis grew in Colorado by **26%**, and Oregon by **29%**. Sales were up by **\$586** million in California and **\$473** million in Florida.

By 2026, the legal US cannabis market is likely reach **\$41** billion in annual sales, roughly the size of the craft beer industry.

The cannabis market is potentially recession-proof

The COVID-19 pandemic was a big blow to some major industries, while some industries saw a phenomenal boom. The marijuana market thrived during the pandemic, as [nationwide cannabis sales](#) increased 67% in 2020. With millions of Americans stuck at home due to stay-at-home orders, the demand for cannabis and cannabis products skyrocketed like never before.

According to a report released by BDSA, a Cannabis sales data platform, legal sales across the US hit a record of \$17.5 billion in 2020, a 46% increase from 2019. Revenue from cannabis grew, especially in mature adult markets like Colorado, where sales were up 26% to reach \$2.2 billion, and Oregon, where sales were up 29%, hitting \$1.1 billion.

California, the country's largest cannabis economy, saw an uptick of \$586 million in weed sales, while Florida saw a \$473 million increase in revenue. BDSA also predicts that by 2026, the legal [US cannabis market](#) will reach \$41 billion in annual sales, roughly the size of the craft beer industry.



About [30%](#) of consumers surveyed by BDSA said they shopped for cannabis products more often in 2020

25% of consumers say their usage increased since before the pandemic.

The demand for vape and inhalant pot decreased by 15% due to a potential risk to respiratory health.

Edibles such as gummies, chocolates, sweet bars, and Cannabis-infused drinks became the most popular products.

Stuck at home, people want to get high

A number of factors combined together led to this steep rise in demand for pot during the pandemic. Weed dispensaries were deemed as “essential businesses”, which meant a steady supply of grass to customers, even during lockdown periods. Cocooned in the comfort of their homes for months, and nowhere to go, people were more inclined towards the recreational use of marijuana.

About 30% of consumers surveyed by BDSA said they shopped for cannabis products more often, while 25% of consumers say their usage increased since before the pandemic. 2020 also saw more customers entering already established markets like California, Colorado, and Oregon; while states like Illinois and Arizona created new adult-use markets.

As COVID-19 posed a threat for lung infections and respiratory illnesses, the demand for vape and inhalant pot decreased by **15%**. But at the same time, edibles such as gummies, chocolates, sweet bars, and Cannabis-infused drinks became **the most popular product category** across all major markets and age groups.

Despite the cancellation of social gatherings, concerts, and festive events, the holiday seasons of 2020 saw an all-time high demand for cannabis across the country. Even during the first few weeks of lockdown, weed sales were touching the sky ahead of 4/20, the International Marijuana holiday.

Cannabis companies across the country reported a substantial spike of **350%** in Green Wednesday (the day preceding Thanksgiving, a popular cannabis festival) sales. Consumers also used more pot during Christmas, Kwanzaa, and Hanukkah, as celebrations were rather quiet and with close friends and families.



The holiday seasons of 2020 saw an all-time high demand for cannabis across the country.

Online ordering, curbside pickups, and doorstep home delivery of weed were big trends in 2020.

Delivery and curbside pickup sales jumped to **40%** of all US weed sales in the spring of 2020.

The Cannabis customer seeks convenience

Much like any other essential and non-essential commodity, the pandemic gave a big boost to the online shopping of cannabis, and there was an evident rise in demand for convenient

delivery options. Online ordering, curbside pickups, and [doorstep home delivery](#) were big trends in 2020 that enabled consumers to access pot quickly and safely.

BDSA reveals that delivery and curbside pickup sales jumped to 40% of all US weed sales in the spring of 2020.

For Sava, a high-end cannabis delivery platform, the average cannabis basket size jumped from \$160 pre-pandemic to \$170, as stockpiling behavior for weed could be seen among consumers.

According to a report released by Eaze, a weed delivery platform funded by popular American rapper, Snoop Dogg, in the 30 days following the declaration of a national lockdown, new delivery customer sign-ups jumped by nearly [60%](#). The company had to hire 735 additional delivery drivers since March to keep up with demand.

To keep up with consumer preferences and to provide a convenient shopping experience to stoners, cannabis dispensaries too adapted to the COVID-19 retail norms, extending delivery services, curbside pick-ups, and no-contact drop-offs.

The Highs and Lows of Cannabis Delivery

If online purchasing and home delivery of legal weed was a thing until now, the COVID-19 pandemic has further blown up the industry, making buying and selling pot online the new normal, and same-day, next-day delivery of grass an essential, just like grocery or food delivery.

Several startups and weed delivery platforms have emerged in the US, offering convenient delivery options, connecting cannabis users to nearby dispensaries, and helping offline retailers sell online during crunch times. PotBot, Leafly, Eaze, Drizly, WeedMaps, Bud.com, and Muncheez are some of the most popular weed delivery apps among consumers.

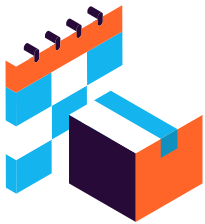
Having said that, the cannabis delivery market is of on-demand nature, and delivery businesses are faced with some unique supply chain challenges.



Federal laws prohibit cannabis from crossing state borders

The cannabis industry typically operates in a grey area. While most states source their cannabis supplies locally to satisfy customer demands,

[during peak seasons](#) or unforeseen demand surges, businesses often depend on other nearby states. At the federal level, cannabis is still classified as a Schedule 1 substance, and the transportation of marijuana across state lines is prohibited by law. Further down, every state or municipality has a different law with regards to the possession and movement of cannabis, causing greater complexities in the supply chain, and impacting customer experience with limited options to choose from.



Manual logistical planning is inefficient

Cannabis businesses might be innovative in terms of product offerings, but the internal supply chain operations are tied down with manual planning, and pen-and-paper processes. Manual planning of logistical operations – taking customer orders, scheduling deliveries, assigning delivery agents, and communicating with customers is time-consuming, error-prone, and inefficient. There is a dire need for businesses to adopt technology to [optimize logistics planning](#) to save time and cost and to speed up last-mile delivery to customers



Safety of delivery agents remains a matter of concern

Delivering cannabis is not an easy task for on-ground agents. Due to federal laws against cannabis sales, most cannabis businesses operate on a cash basis. Also, weed and weed-infused products are quite expensive, and much in demand. Due to this, robberies are quite common, and delivery agents are always at the risk of being attacked or mugged on the job. Theft of valuable stock or cash leads to revenue loss for the business, and the safety and well-being of delivery agents remains a serious matter of concern.



Lack of on-ground visibility is a problem

There is also a lack of visibility in the cannabis supply chain, causing delayed deliveries, unnecessary idle-times, miscommunication, and on-ground mishaps such as vehicle downtimes, thefts, or robberies. Inability to track and monitor delivery operations also restricts cannabis businesses from sharing order updates with customers in real-time, thereby impacting the overall customer experience.

Smart Use of Logistics Tech – The Way Forward for Cannabis Delivery Businesses

The COVID-19 pandemic has caused some remarkable shifts in [consumer buying behavior](#) and normalized online shopping of goods. Social distancing and stay-at-home orders have popularized various modes of distribution – contactless home deliveries, curbside pickups, [Buy Online Pick-up In-store](#), and Click-and-Collect to name a few.

Delivery businesses across retail, FMCG, home services, [fresh food delivery](#), and [hyperlocal markets](#) are now going digital, and embracing logistics technology to better plan, execute and monitor delivery operations. Experts believe that the online shopping and delivery of cannabis will continue, even after the pandemic is forever gone. Delivery is more than a luxury, it is an essential now.

To ensure a smooth flow of weed throughout the supply chain, satisfy the dynamic demands of convenience-seeking cannabis users, and remain profitable in a competitive market-space, cannabis delivery businesses must let go of manual processes and use logistics tech to their advantage.

Technology advancements in Location Intelligence, Machine Learning, Data Analytics, and Artificial Intelligence are transforming supply chains across the globe. Here's why you should consider digitizing your cannabis delivery supply chain.



Efficient Logistics Planning

Efficient logistics planning is fundamental for successful last-mile delivery operations. By letting go of pen-and-paper planning processes, and leveraging logistics planning automation solutions, you can save valuable time and human resources spent on planning day-to-day dispatches, assigning duties, and planning delivery routes. From network planning to [last-mile delivery optimization](#), logistics optimization software can streamline your logistics planning from end to end.



Greater Visibility

By investing in a supply chain visibility tool, your logistics managers can track on-ground operations in real-time, take corrective measures

to avoid unforeseen events like accidents, robberies, and vehicle breakdowns, as well as monitor the performance of drivers and delivery staff. Visibility tools also enable you to share order status with customers, thereby building greater transparency and trust among buyers.



Smarter Resource Management

For a delivery business, managing resources efficiently is of paramount importance, whether it is human resources, fleet vehicles, or inventory management. With the help of Machine Learning algorithms and data science capabilities, it is possible to assign delivery duties to the best-suited workmen, use right-sized vehicles for delivering and distributing goods and maintain the right levels of stock, based on market demands and dynamic conditions. Leveraging tech for resource management minimizes errors and improves business productivity.



Improved Decision Making

Data is a powerful tool for decision-making. For a cannabis delivery business, information of customer buying behavior, seasonal market trends, rider delivery preferences, location-based historical information, etc. are crucial to plan sales, distribution, and delivery operations effectively, keep customers satisfied and workers happy on the ground. Data science algorithms and analytics help businesses to harness these critical data sets and gain valuable insights for better business decisions.

Locus in the Cannabis Delivery Supply Chain

Locus is a deep-tech platform that automates human decisions in the supply chain to provide efficiency, transparency, and consistency in logistics operations. For cannabis delivery businesses, Locus offers state-of-the-art logistics planning, visibility and last-mile fulfillment solutions, enabling speedy deliveries, improved supply chain performance and greater customer satisfaction.

Accurate Geocoding

Locus's [advanced geocoding engine](#) verifies and validates even the fuzziest of addresses accurately, enabling delivery agents to effectively fulfill customers. Accurate mapping of addresses reduces the time spent searching for customer locations, [increases First Attempt Delivery Rates \(FADR\)](#) and improves customer experience.

Network Design Planning and Optimization

With deep tech features and intuitive capabilities, [Locus NodeIQ](#) helps cannabis delivery businesses plan optimal supply chain networks, right from the point of sourcing till the point of consumption, including accurate placement of distribution hubs (dispensaries) for fast and seamless movement of cannabis within the supply chain.

Dispatch Planning and Dynamic Route Optimization

Locus's advanced route optimization engine, Dispatcher enables automated planning of day-to-day order dispatches, and plans the shortest most optimal last-mile delivery routes. The route planner considers real-world constraints such as traffic conditions, zone restrictions, etc. and accommodates dynamic order requests along with scheduled routes. Automated dispatching and [route planning](#) saves logistics costs, improves delivery efficiency and reduces overall fuel consumption and carbon footprint.

Time Slot Management and Electronic Proof of Delivery

The routing software plans delivery routes based on [customer-preferred delivery time windows](#), offering greater convenience in the final mile. On successful completion of a delivery, riders can capture proof of delivery electronically via e-signature or photographic evidence of delivery, thereby maintaining social distancing and [contactless delivery protocols](#).

Smart Rider Allocation

Locus's advanced algorithms consider historical delivery data, rider preferences, skill-sets and geographical know-how to assign delivery duties to the best-suited riders/delivery partners. Smart rider allocation improves workforce productivity, enables fair distribution of workload and enhances the work-life balance of on-ground staff.

Last-Mile Tracking

Real-time last-mile tracking, powered by [Locus TrackIQ](#), enables logistics managers to track and monitor delivery operations in real-time using intuitive dashboards, and enables effective decision making with the help of predictive alerts and granular insights. TrackIQ also allows you to share ETAs and live order status with customers, thereby improving supply chain transparency both internally as well as with customers.

Do you wish to overcome the logistical challenges in the cannabis delivery supply chain and fulfill your customers with fast, efficient and cost-effective last-mile deliveries? Optimize your cannabis supply chain with Locus now. Get in touch with our experts for a quick tour of our offerings.

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Locus is a leading-edge technology company
dedicated to solving the most challenging all mile
problems in global logistics.

1020m+

Total deliveries
optimized

12m+ kgs

Reduction
in GHG emissions

\$288m+

Savings
in logistics costs

**GROWTH,
DELIVERED.**

[Know more](#)