

Cover

Commentary

U.S. Isolate Prices

U.S. Licensed Acreage

Market Intelligence Hemp

3.9.20



Market Intelligence: Hemp

March 10th, 2020

Hemp markets are rapidly evolving, particularly the cannabinoid segment, where demand has plummeted since Q3 2019. Markets expected giants like PepsiCo, AB InBev, and Constellation Brands – who own a stake in Canopy Growth – to drive demand for CBD isolate. The FDA's position on CBD put the brakes on any product rollout from these global companies, so the segment is effectively stalled until the FDA creates clear guidance. Large corporations will not assume the risk exposure like smaller beverage companies that have pioneered in the space. However, the national distribution channels and robust marketing arms of these corporations will have far more impact on demand than smaller companies can. Nevertheless, any product development that drives wholesale demand for CBD isolate will help to buoy pricing over time.

Isolate pricing has more than halved since July, according to The Jacobsen's Hemp Price Guide. Regions for The Jacobsen's price reporting are evolving with the market, and one can see in the chart for isolate pricing that regions have consolidated, so that we'll begin publishing aggregate *US Isolate Prices*. The geography for these developing markets has been influenced by policy related to years of prohibition, so that markets have developed by state, according to individual state policies on hemp production. Colorado was far ahead of most markets, and extraction capacity in Colorado exceeds that of any other state. One can also see in the accompanying chart that Colorado reported a higher portion of their crop harvested in 2019, reflecting more collective experience cultivating hemp.

High throughput extraction facilities have come online in other states since the 2018 Farm Bill spurred cultivation licenses on upwards of half a million acres from coast to coast. Most of the states that did not allow hemp cultivation in 2019 are implementing hemp cultivation programs in 2020, save for a small handful of states, some of whom are wrestling with a mandate to fund the administration of their hemp programs prior to issuing licenses.

We expect hemp acreage in the US to be similar to 2019 numbers, though there should be an increase in harvested acres as farmers improve their agronomic practices and harvest processes. Regional bottle necks will remain in areas like Southern Oregon where planted acreage outpaces infrastructure to dry and store the crop. Drying and storage infrastructure is increasing in these areas, but entrepreneurs face barriers with community resistance to siting hemp processing facilities due to smell, safety, and a general association with the cannabis industry. California has proven to be particularly hostile towards hemp, with many counties and cities implementing moratoriums on hemp production. Similar to Oregon, California has a broad knowledge base for cannabis and hemp cultivation, and a Mediterranean climate to compliment Class 1 soils. If state and local policies greenlight hemp production there, expect California to produce top grade flower for the smokable flower market. This could drive pricing downward in a market that has shown healthy demand, and pricing of several hundred dollars a pound for the highest quality outdoor flower.

Certified Organic production will continue to increase in 2020. Many farmers are managing their crops organically already, and these producers will look to differentiate their product by pursuing organic certification or shifting cultivation to nearby certified ground. The Jacobsen already reports Certified Organic Hempseed separately from conventional and will split out other organic commodities as trading volume for them increase. We will also begin reporting premium derivatives like isolate and crude extract separately from conventional. These premiums may include cGMP practices, ISO certification, "soil to oil" traceability, or organic production. As these specifications evolve, our price reporting will reflect any associations with these premiums and pricing.

Cannabigerol is the new cannabinoid on the block for 2020. Seed companies are reporting significant increases in sales of CBG dominant cultivars. Retail demand is weak though, with no meaningful presence of CBG in retail markets. CBG isolate pricing has dropped from over \$25,000/ kilo to below \$5000/kilo in some cases, with further decline expected as a result of weak demand. There's simply nothing in retail markets to generate the demand that will accommodate the harvest from the projected 2020 acreage planted to CBG cultivars. There are agronomic advantages to CBG plants, with a shorter season and a tendency to remain compliant with new strict THC rules found in the USDA's Interim Final Rule (IFR) issued last October.

The USDA has recently relaxed some aspects of THC regulations found in the IFR, namely around DEA registered labs, and disposal of "hot" hemp. Some states will persist with existing rules rather than new IFR standards for 2020. This will create some challenges for interstate commerce if hemp from a state using a delta-9 THC standard is exported to a state with a total THC standard with no rounding. Consult your attorney prior to transporting hemp across state lines, particularly non-compliant extracts.

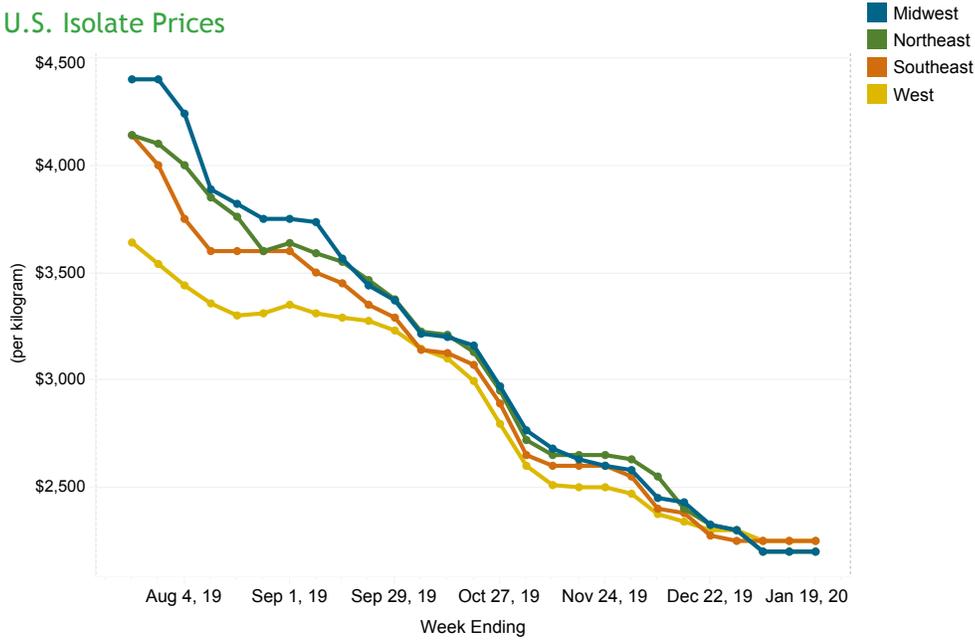
The IFR has helped to normalize the industry, one where drivers could be arrested and charged with serious trafficking just last summer. Crop Insurance and other federal programs will be available for producers in 2020. Crop Insurance may have limited appeal in the early days of the industry, but existing farmers that already work with the Farm Service Agency are expected to participate when growing at scale, and some new to farming will also take advantage of federal crop insurance. As production and pricing data accumulate, and as hemp markets stabilize, federal crop insurance will be an important part of risk management for hemp producers. Banking is also a challenge for this industry. There are some good options out there for general banking services, and traditional financing is increasing for hemp businesses. Merchant services for credit card processing remain a challenge, but options like Square create options for producers that are only marginally more expensive.

The Jacobsen has a team of analysts with extensive experience in forecasting prices for agricultural commodities. We incorporate data from a wide range of sources, traditionally available for mature commodity markets. Hemp does not currently have data available from many traditional sources, making production surveys an important part of our Market Intelligence Reports. These are highly valued by Jacobsen clients in other agricultural commodities for their insightfulness and accuracy in projecting forward curves for commodities as diverse as Biodiesel, Vegetable Oils, and Organic & Non-GMO markets.

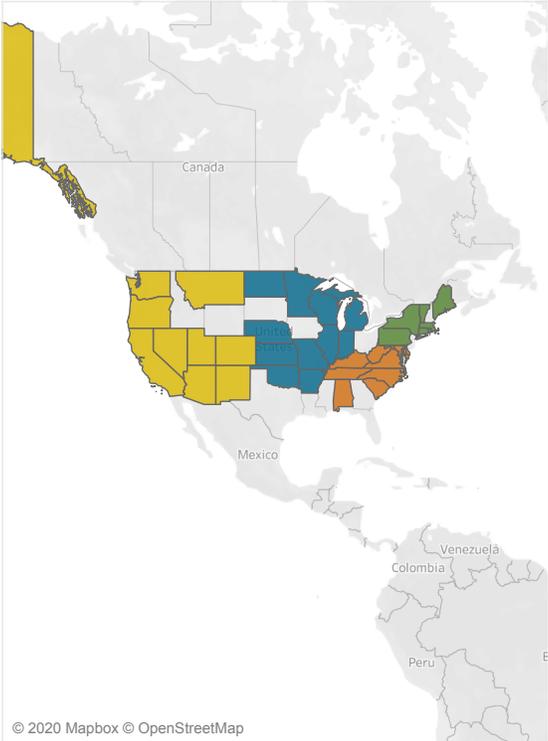
Another aspect of market normalization for hemp includes traditional price reporting, and market forecasting based on comprehensive balance sheets. Please take a few minutes to complete our production survey, and we'll ensure you receive relevant information gleaned from the results, to help inform your management. We'll return results to you in a similar format to this report.

Please forward this report to friends and encourage them to participate in the survey. A rising tide lifts all ships, so the collective industry will benefit long-term from increased participation.

U.S. Isolate Prices

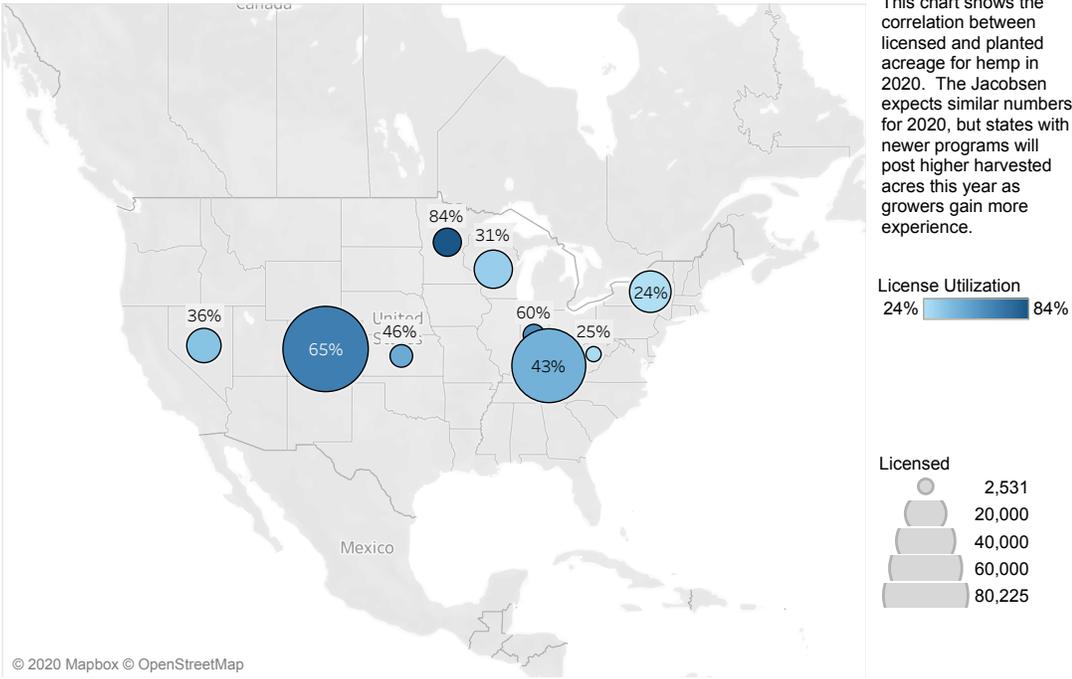


Regional Map



The above chart shows the precipitous drop in isolate prices for the second half of 2019 and Q1 2020. It also shows the consolidation of prices across the reporting regions. The Jacobsen will begin to report aggregate pricing for *US Isolate*.

Known State License Utilization



2019 Licensed Hemp Acreage

CO Licensed Acres 80K	MT Licensed Acres 40K	NY Licensed Acres 19K	OK Licensed Acres 18K	IL Licensed Acres 17K		
KY Licensed Acres 60K	TN Licensed Acres 40K	WI Licensed Acres 16K	NC Licensed Acres 15K	NV Licensed Acres 13K		
	AZ Licensed Acres 36K	VA Licensed Acres 10K	VT	NM	WA	
OR Licensed Acres 55K	CA Licensed Acres 31K	MN Licensed Acres	KS	ND	AR	SC
		AL Licensed Acres	IN	ME	WV	