

JULY 2020 HEMP FORECAST

The Hemp Forecast is provided to subscribers of the Jacobsen on a monthly basis. This July 2020 issue is being made public to the wider hemp community for free due to the current pandemic.

If you are a farmer or grower of hemp, we invite you to participate in our 2020 Summer Survey.

Take the Survey

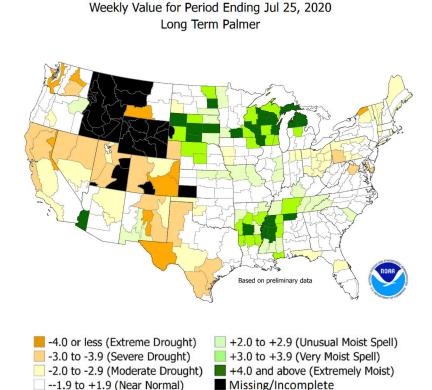
COMMENTARY

We are now well past the summer solstice and flowering hemp is bulking up in early plantings. Much of the crop is in earlier stages of flowering. Weather overall has been conducive to a thriving crop for 2020 in the US. Hurricane Hanna made landfall at Padre Island and then shortly after in nearby Kennedy County, Texas. Up to 10" of rain fell in parts of the lower Rio Grande Valley. Tropical storm force winds may have impacted clone plantings which lack a taproot, though we have not heard reports of widespread lodging. Cotton bolls are opening, and hemp flowers could be well developed by this time in lower Rio Grande Valley where Hannah brought the most rainfall. Corn and sorghum harvest are in full swing there. The area has also been hammered by coronavirus; labor may be an issue for new operators in the far south of Texas, but in other virus hotspots as well, as we previously reported in the Hemp Bulletin. The central and eastern US received moisture at an opportune time in crop development, as much as several inches over the past week in some places, but generally adequate rainfall all season long. Plants are now well into flower, so adequate moisture and fertility at this time will ensure more resilient plants and maximum yields. As will persistent rogueing of male plants.

Heat has been extreme for much of July in the southern and middle Atlantic and parts of the Southeast, but adequate rainfall has fallen in many locations. Much of this is widespread afternoon thunderstorms, which can drop inches in a span of 30 minutes and bring tropical storm force winds or hail, like the powerful cell that blasted through the Charlotte, NC area last week. By in large, most hemp crops bounce back from these storms, and appreciate the moisture in well drained soils. Hemp is extremely resilient once established, and at this stage of the season, damaged plants can put on abundant new growth. Areas of the deep south may need to support plants with the high energy storms cells that roll in off the Gulf of Mexico, but this also applies to other storm-prone areas. It isn't practical at scale, but many cannabinoid crops are intensively managed with hand labor.

Most of the country has seen steady 80's and 90's over past weeks, with plenty of 100's, and some 110's around the California/Arizona border. August will likely bring our first cold fronts, but August and September are also the busiest months for the Atlantic Hurricane Season, which has already been overactive this year. Producers in Gulf States and the Atlantic Seaboard will be watching closely and urging storms to turn east, out to sea. There is a high likelihood of superstorms this year, with three key factors - sea surface temps, wind shear, and La Niña development - matching conditions of 2005, the year Category 5 Katrina demolished NOLA and parts of the Gulf Coast. To date, weather has been conducive to good crop growth, with no significant impacts on the supply picture. Pests will challenge producers this year and will likely increase in areas like the eastern US where warmer winter temperatures and hemp crop residue in fields will facilitate healthy insect populations. High humidity and steady rainfall will cause some fungal disease in western-bred hemp varieties with dense flowers. This will impact producers premium flower more than biomass for extraction.

Severe drought conditions persist in the Southwest, including California and hemp growing areas of southern Colorado, but this is largely irrigated. Non-irrigated crops will fare poorly this year in areas of severe or extreme drought. Parts of Texas are dry, and Pennsylvania and Ohio have endured a hot and dry stretch that is impacting all agricultural crops. The map on the next page is a helpful visual of long-term drought conditions in the United States.



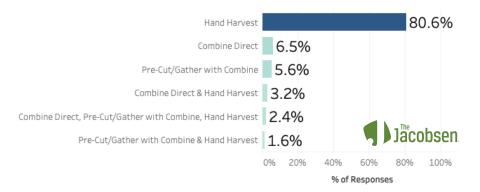
Drought Severity Index by Division



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"In 2019, just over 80% of the hemp crop was harvested by hand."

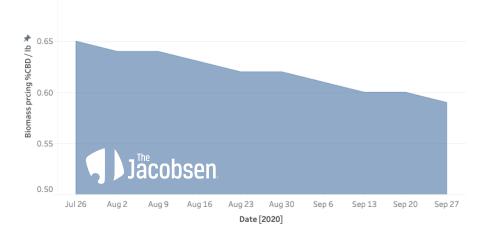
The earliest harvests are starting for early plantings in southern states. Much of the 2020 crop will be hand harvested again this year. In 2019, just over 80% of the hemp crop was harvested by hand, the balance of the US crop was a mix of combines and hand harvest. We interpret this data in part as combines requiring extensive hand work, with repetitive clogs, or hand cutting and feeding a stationary combine. Some of the data reflects plants that are precut, left to dry on the plastic, then gathered with a combine. This is possible in dry climates like parts of Colorado, California, and Central Oregon. New producers have again this year planted upwards of 25 or even 40 acres with intentions to manage and harvest by hand. We wish them well; experience is a generous teacher in agriculture. The chart below from our spring survey represents intended harvest practices in 2020:



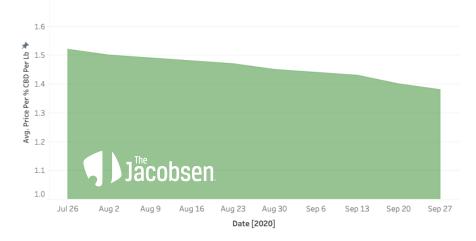
BIOMASS PRICING

"We are facing more oversupply and further price erosion on biomass."

Overall pricing of CBD derivatives is not expected to show any dramatic declines over the coming 4-6 weeks, the scope of our forecasts. FDA recently submitted proposed regulations for CBD to the White House OMB, and there is some chance it could have an impact on pricing in this forecast period. The scope of the regulations is unknown, but our understanding is that they can be implemented in a matter of weeks if approved. The Jacobsen's next forecast will include numbers from FSA, giving us the most accurate look at planted acres to date. Regardless of planted acreage, with the current demand picture, we are facing more oversupply and further price erosion on biomass.



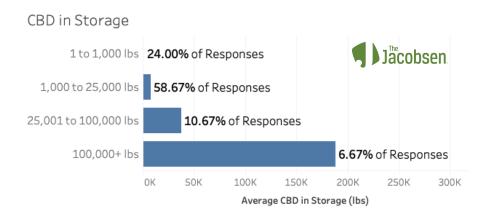
Biomass Price Forecast



Biomass Price Forecast Certifed Organic

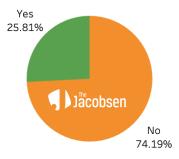
Some major buyers for biomass aren't picky about quality, so bargains on 2019 biomass – Including certified organic – that have sufficient CBD may be attractive, and the current pricing floor will likely be pressured.

There is significant carryover biomass as seen in chart below:



EXTRACT CANNABINOIDS & TOLL PROCESSING

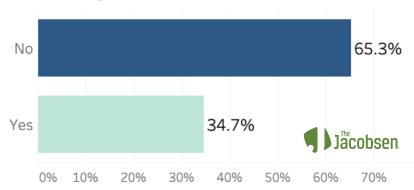
Vertical integration is a good way for producers to insulate themselves from current market pricing. Our spring survey revealed that 25% of producers also extract cannabinoids:



Over 34% of surveyed hemp producers intend to use toll processing in 2020. This is good

news for toll extractors, who will be eager for cash tolls. This practice is giving rise to thousands of new brands in the retail cannabinoid market. Success will rest on similar issues that make any new business succeed, but many will not.

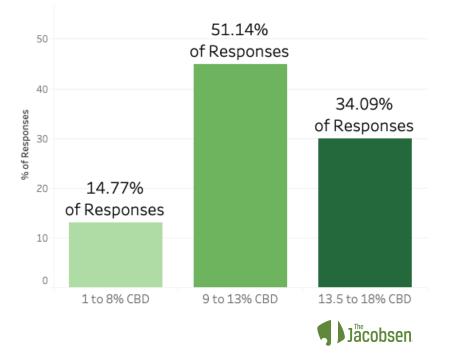
"Over 34% of surveyed hemp producers intend to use toll processing in 2020."



Toll Processing

CBD CONTENT

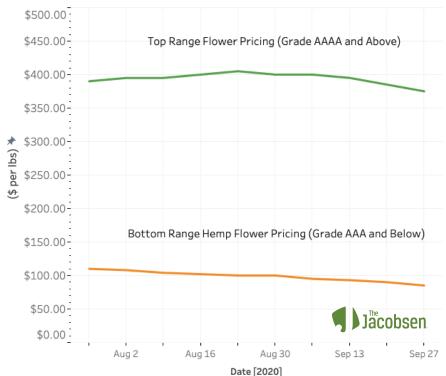
The debate rages on about the typical maximum CBD to THC ratio in hemp genetics, with 30 or 35:1 being a commonly held assumption. Higher CBD content increases risk of exceeding the .3% THC threshold, which in 2020 is interpreted and enforced variably among states. Producers will gravitate to safer cannabinoid profiles as we approach implementation of the USDA's Interim Final Rule (IFR) nationwide. Producers have reported CBD content in the single digits to the midhigh teens, representing a range of genetics, but in many cases, this post-harvest CBD content is heavily influenced by handling. Larger acreage and machine harvested crops will return lower CBD numbers in exchange for operating efficiency.



CBD Content Chart

HEMP FLOWER PRICE FORECAST

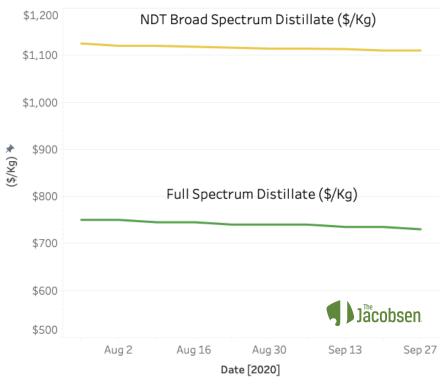
2020 outdoor flower is starting to trickle into the market, along with greenhouse or indoor product. We do not see much long-term pricing increase for flower if current growing conditions persist, but there is room for top-shelf product to increase in some markets prior to harvest, after which we will likely see a decline. Producers only have more experience this year, and many are looking to capitalize on lucrative flower markets. The floor on flower pricing will see more pressure over the forecast period of August into early September (see chart below), but the lower end of pricing is already sliding. The growing trend of hemp flower bans may start to eat into demand and will invariably divert sales to the black market.



Hemp Flower Forecast

DISTILLATES FORECAST

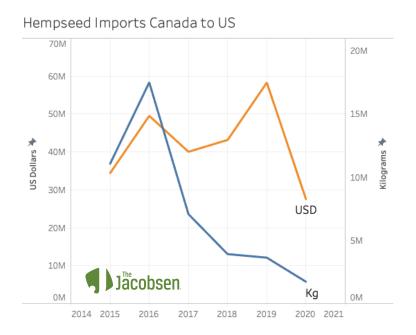
Crude CBD extract has maintained the current pricing floor since Q1 2020, we don't expect much movement. Refined extracts pricing will continue to fall moderately to lower pricing levels, but this is extremely variable in the market, and companies continue to market product at various price points. These spreads can be quite significant. We began reporting a premium category in April, but the market continues to evolve, and the lines between GMP produced products and those that are not continue to be blurred. We will discontinue reporting premium pricing separately, but instead will list typical premiums in the specifications in the members area of The Jacobsen's website. If you are not a current subscriber, follow this link to request specifications, which are regularly reviewed and updated.



Distillate Forecast

HEMPSEED & FIBER

Raw hemp fiber pricing has remained steady, with very few participants in this market. We do not anticipate any changes to hemp fiber pricing during the forecast period. Hempseed markets may see some pricing pressure after a report of Manitoba Harvest contracting hempseed in the border areas of the Northern Plains at somewhat lower pricing than what The Jacobsen now reports. Harvest is a well out for many hempseed producing areas, we'll closely monitor these markets. Canada's hempseed market will invariably have a marked influence on US hempseed markets. Many current hempseed crushers have favored US grown hempseed and contracted production accordingly. That said, there are still significant hempseed imports from Canada to the US, with over 3.6 million kg imported last year, and 1.72 million kg to date in 2020, but the trend is downward from a high of 17.5 million kg in 2016, as seen in the chart below.



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Offer expires 8/31/2020.



ABOUT THE AUTHOR



Chase Hubbard earned his degree in Sustainable Agriculture from Warren Wilson College in Asheville, NC and later completed NC State's Agricultural Leadership Development Program. His career in farm management — including a broad range of crops, livestock, and markets – received widespread local and national recognition for progressive agricultural practices and for mentoring young farmers. Chase's unique perspectives in agriculture result from deep sector knowledge across many commodities and geography, ranging from Western North Carolina to Latin America and Southeast Asia. In addition to farming full-time, he served as an elected Soil and Water Supervisor, and in appointed leadership roles for local/state agricultural committees and commodity groups. Chase is now covering the emerging hemp industry for The Jacobsen.