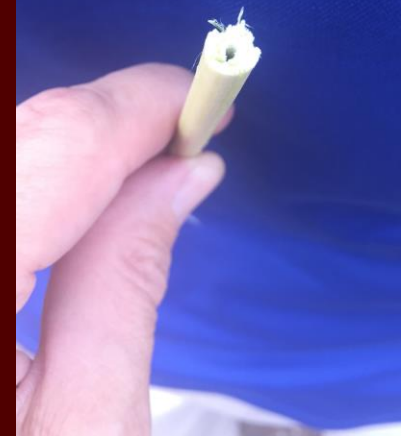


Industrial Hemp in Texas: 3. Business Considerations



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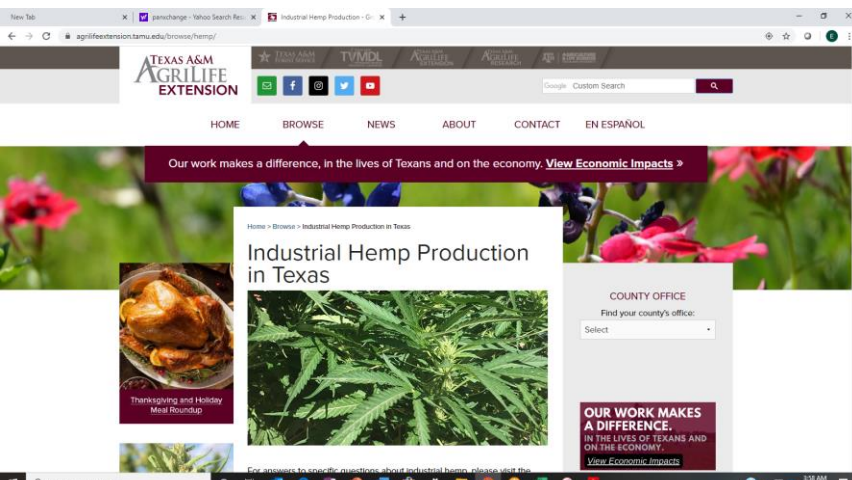
Biomass Spot Pricing - December 2019				
Source: PanXchange				
Region	Midpoint	▲	Low	High
Colorado (per % CBD Content/lb.)	\$ 0.98	-14%	\$ 0.75	\$ 1.20
Kentucky (per % CBD Content/lb.)	\$ 0.95	-7%	\$ 0.85	\$ 1.05
Oregon (per % CBD Content/lb.)	\$ 0.85	-24%	\$ 0.60	\$ 1.10
Refined Product Pricing - December 2019				
Product	Midpoint	▲	Low	High
Colorado Winterized Crude (per kg.)	\$ 800	-22%	\$ 600	\$ 1,000
Colorado Full Spectrum Distillate (per kg.)	\$ 2,200	-15%	\$ 1,900	\$ 2,500
Colorado Broad Spectrum Distillate (per kg.)	\$ 4,050	-9%	\$ 3,400	\$ 4,700
Colorado Isolate (per kg.)	\$ 2,250	-6%	\$ 1,700	\$ 2,800

Source: PanXchange, Inc.

January 2020

This is part of a series, “Industrial Hemp in Texas”

- ⦿ Part 1: Preparing for an Industry
- ⦿ Part 2: Initial Growing Considerations
- ⦿ Part 3: Business Considerations
- ⦿ Check regularly for updated and new information.
- ⦿ All three sections plus other resources are available at <https://agriflifeextension.tamu.edu/browse/hemp/>



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- ⦿ The Texas A&M University System and agencies, including Texas A&M AgriLife Extension Service and its employees, do not advise for or against industrial hemp production in Texas.
- ⦿ Texas A&M AgriLife does not endorse or discourage legal industrial hemp production as a viable agricultural production system in Texas relative to any other crop.

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Forthcoming AgriLife Guidelines: *Hemp Business/Contractor Relationships*

- ◎ Texas A&M AgriLife Extension has a faculty member of Department of Agricultural & Applied Economist who is an agricultural law specialist and an attorney. A document is being prepared to help guide prospective growers in the developing Texas hemp industry.
- ◎ Agrilife.org/texasaglaw, Tiffany Dowell-Lashmet, J.D., Amarillo AgriLife Extension, (806) 677-5600, tiffany-dowelllashmet@ag.tamu.edu

Grower Arrangement – Buyer/Processor

- ⦿ There is a wide range of agreements (CBD).

Beware of contracts that have many 'outs' in favor of buyer/processor

- ⦿ A concern raised by AgriLife Extension ag. economist Dr. George Knapek, College Station: Many contracts appear to provide the buyer/processor with many “outs”, which they can use to escape contractual obligations.
- ⦿ This leaves the farmer holding a crop with no immediate buyer, now trying to find another market, in an environment where cash or ‘spot’ prices may well be lower.

Beware of contracts that have many 'outs' in favor of buyer/processor

- ⦿ What happens if the buyer doesn't fulfill agreement to purchase your crop?
 - ⦿ Hopefully you have not delivered the crop.
 - ⦿ You will try to find another buyer.
- ⦿ If you are growing on fee-basis (like management), with reimbursement of expenses to you or contractor is paying the bills for input costs are they current on payments?

What if Company Won't Contract...

- ⊙ ...but says they will buy your crop?
- ⊙ What assurance does that have? (low)
- ⊙ New Mexico, 2019 (first-year production): Some hemp growers paid way too much for their planting stock, and couldn't get a contract. "We'll be here (to buy)," growers were told.
- ⊙ Contract prices in early 2019 would have likely been ~\$3 per 1% of CBD per pound of dried biomass
- ⊙ But prices fell through the cropping season, and reached the low \$1 range by harvest.
- ⊙ Companies could have known this would happen hence declined to have contracts.

Grower Arrangement – Buyer/Processor

- ◎ On one hand: Paying all the costs, taking the full risk of loss, profit, etc.
- ◎ Is this for you?
- ◎ Whole Farm Revenue Protection crop insurance will be available in 2020, but:
 - ◎ You must have 5 years of farm income.
 - ◎ You must have a contract with a buyer.

Grower Arrangement – Buyer/Processor

- ⦿ On the other hand: Growing for a **flat fee**, say \$1,000 per acre (might split some costs?)
- ⦿ Reimbursed for all other expenses (make sure are paid in timely fashion; better to have buyer pay bills directly—they will need to be well capitalized).
- ⦿ **Your upside is limited** (no \$XX,XXX gross per acre); **your downside risk on failure is nil**.
- ⦿ You wouldn't need crop insurance.
- ⦿ The buyer would like to have it, but they are not a “grower” and do not have five years of farm yield history.

Advice to Prospective Growers 1

- ⦿ **Ask lots of questions.** Ask for verification of claims. If you can't get straight answers, then that is a **red flag**.
- ⦿ Are the people you are talking to truly interested in farmers?
- ⦿ **AgriLife Extension recommends that no prospective hemp grower—CBD, fiber, grain—initiate production without a legally binding contract reviewed by an attorney of your choice.**
- ⦿ If your attorney asks for revisions or changes in terms, do not ignore them. They are hired to protect you. If a production contract does not satisfy you, and differences can't be ironed out, then walk away.

Advice to Prospective Growers 2

- ⦿ Because risk of impure seed or seed that is not what it is claimed to be (for example, “feminized” seed which should be free of male plants but is not), growers should consider:
 - ⦿ **A) an escrow account** that withholds payment to the seed (or transplant or clone) supplier until the grower is assured the seed germinates, establishes, and is free of males;
 - ⦿ **B) an arrangement in which your contractor shares the farming risk by supplying the seed or planting material** and bears its full cost. (An **established contractor** should better recognize issues with planting stock reliability; they can make the purchase at a better price since they should know what is too much to pay.)

Advice to Prospective Growers 3

- ⦿ If you meet anyone that seems to “have all the answers” then be cautious. There is as of 2019 no single farmer that has grown hemp or consultant that has advised under Texas conditions.
- ⦿ Exception: there are a few legally licensed growers of medical Cannabis in Texas.
- ⦿ We don't yet know how hemp genetics that perform adequately in other regions will perform in different Texas environments.

Advice to Prospective Growers 4

- ⦿ **What about growing hemp or the business that you don't understand?** Then ask those questions and seek answers.
- ⦿ There are numerous organizations and websites vying for your attention in Texas. Vet them carefully. Is the leadership local and appear to represent your interests as a farmer?

Advice to Prospective Growers 5

- It is time to plant.
- You don't have a contract yet.
- You have been told "We'll be here to buy your crop."
- Do you go ahead and plant?
 - Can we say "**Don't do it**"? Downside risk is high.
- This was a common in first-year production in New Mexico in 2019. We haven't heard how this turned out, but likely not good: prices at harvest were 1/2 to 2/3 below early season contracts.
- Maybe a would-be contractor knew prices would fall and hoped they could get your crop for less.

Reality of 2020 Hemp Processing in Texas

- USDA interim rules have been released and now Texas Dept. of Agriculture submitted a state plan 12/2/2019 for review soon.
- Licenses in 90 days? 120 days? (grower & processor):
 - Nov. 5, TDA representative speaking to AgriLife's Wichita Falls hemp conference **suggested TDA may not be ready to receive and review licenses until March.**
 - Will TDA be able to handle possibly several thousand applications quickly?
 - Implications for Texas planting especially Lower Rio Grande Valley and the south third of Texas (need to plant before you can get your license?)

Reality of 2020 Hemp Processing in Texas

- ⦿ Let's say that in the Lower Rio Grande Valley planting occurs Feb. 21 (or High Plains on April 10);
- ⦿ It appears that a mid-February planting might be potentially optimum in the Lower Rio Grande Valley
- ⦿ The High Plains (Lubbock), April 10 is just after the last average freeze;
- ⦿ Some hemp for CBD is running up to 120 days to harvest, but perhaps a determinant/"autoflower" variety is ready for harvest in 80 days.
- ⦿ Would a processor be ready to buy by June for the LRGV? Mid-August for Lubbock region? Or sooner?

Reality of 2020 Hemp Processing in Texas

- ⦿ As of mid-December 2019 there is no construction yet for CBD processing. (Or fiber.)
- ⦿ **So what will you do?** What are your options as a grower? Planting might not be that far away. Will there be construction started by the time you plant?

Reality of 2020 Hemp Processing in Texas

- ⦿ Drying and **especially storage become important** if you may have to hold a crop for several months before it is moved to market and processing?
- ⦿ Can you do that? Will you even want to in 2020?
- ⦿ Fiber may be a different matter, but will still need construction.

Reality of 2020 Hemp Processing in Texas

- ⦿ How long could hemp be stored dry?
- ⦿ Would it be stored by the grower or the processor?
Does the buyer take possession of the hemp and pay you?
 - ⦿ A grower/buyer contract should address this.
- ⦿ For the grower, if facilities are not ready to process your crop this delays payment (and if you have borrowed money to grow then a delay further complicates lack of immediate market delivery).

Reality of 2020 Hemp Processing in Texas

- ⦿ If the crop can't be stored long enough or if processing here is not ready, can the crop be hauled to another state? (assumed to be contractor's expense, unless you are paying fully for the production crop).
- ⦿ If you have a contract your attorney OKs, but there are no processing facilities yet, should you sign?

How Delays May Affect Texas Hemp in 2020

- ⦿ Delays may occur due licenses coming late
 - ⦿ It already appears for some would-be Texas hemp growers in 2020 that licenses will not likely be in hand prior to what appears to be optimum planting time.
- ⦿ Delays could occur due to lack of processing facilities.
- ⦿ **What to do?**
- ⦿ If faced with these circumstances, and it appears to be getting late—perhaps too late—to plant hemp, is a grower prepared to pull the plug on hemp farming in 2020 and wait for 2021?

How Delays May Affect Texas Hemp in 2020

- ⦿ You may face pressure to plant anyway...
 - ⦿ You want to plant hemp now, really bad... (that's dangerous).
 - ⦿ You are afraid you might “miss out” if you don't plant now.
 - ⦿ Your contractor insists you plant anyway. (Who is taking the risk of a possible poor stand or poor crop—you the grower or the contractor?) Should your contract with a buyer/processor have a clause that addresses what will be done if hemp can't be planted by a specific date?
 - ⦿ Someone invested in your hemp farming and insists you plant anyway, even if late (this was a factor in some of the largest hemp failures I heard about in 2019).

Hemp & Any Sense of Urgency

- ⦿ We all know we need to be careful regarding hemp. But will we be? Will we conduct all necessary due diligence?
- ⦿ There is a lot to learn, and hemp farming is a lot more than just growing the crop.
- ⦿ So consider the following statements—you might hear them, you may think them.

Hemp & Any Sense of Urgency

- ⦿ “I have to get started with hemp farming now...”
- ⦿ “Production contracts are filling up fast, you need to sign now..., or you will miss out.”
- ⦿ “My investor or landowner insists I plant anyway...”
- ⦿ “I have got to find a loan so I can get started farming hemp now...”

Hemp & Any Sense of Urgency

- ⦿ “An attorney advised me we needed more time to evaluate and negotiate a fair contract...”
- ⦿ “A contractor said they ‘never had a problem’ with their basic grower agreement’... So do I ignore my own concerns and sign anyway?”
- ⦿ “I committed to plant in hemp in 2020 no matter what...”
- ⦿ “I can’t afford to wait until 2021...”

Preliminary Hemp Resources

- ⦿ Read a lot. If you are truly interested in growing hemp read, talk, ask. Get the answers you need. It will require time.
- ⦿ **Texas A&M AgriLife Extension** agency website, <https://agriflifeextension.tamu.edu/hemp/>
- ⦿ This includes a list of Texas A&M AgriLife faculty and staff with roles in hemp education and future research.
- ⦿ Consider private & commercial websites, but also especially universities and state departments of agriculture including Texas' hemp page and FDA hemp health & consumer page:
- ⦿ <https://www.texasagriculture.gov/RegulatoryPrograms/Hemp.aspx>
- ⦿ <https://www.fda.gov/news-events/public-health-focus/fda-regulation-cannabis-and-cannabis-derived-products-including-cannabidiol-cbd>



The Future of Hemp in Texas?

- ⊙ Hemp is highly risky due to establishment and production costs.
- ⊙ Prospective producers must use due diligence to ensure viable supply and market partners.
- ⊙ How soon will fiber markets develop?
- ⊙ Don't spend money you can't afford to lose.
 - ⊙ A grower who stated he was "strapped for cash" and how could he afford the costs/borrow \$ to grow hemp should walk away. Don't plan on hemp 'saving the farm.'



The Economic Landscape in Hemp

*A brief summary from Texas A&M AgriLife Extension economist **Dr. George Knappek**, College Station, (979) 845-5913, g-knappek@tamu.edu*

- ◎ Some will make money going forward.
- ◎ Those in other states that started 2-5 years ago have a significant advantage.
 - ◎ They purchased and paid for their infrastructure when prices were much higher.
- ◎ Comments from others:
 - ◎ “For every farmer that made it big in Kentucky, seven have lost money (Trostle response: I would want to talk to these 7 growers: “What went wrong, what would you do differently?” Perhaps 2 or 3 could come out OK.)

The Economic Landscape in Hemp

*A summary from Texas A&M AgriLife Extension economist **Dr. George Knappek**, College Station, (979) 845-5913, g-knappek@tamu.edu*

- ⦿ Review Dr. Knappek's economic assessment of industrial hemp and potential risks in farming Texas hemp in 2020 (recorded Dec. 18, 2019; will be placed on the agency hemp webpage as well).
- ⦿ <https://www.youtube.com/watch?reload=9&v=7gdGqXhUkyo&list=PLZiB7zLZEoDIRy9T7I-NJ9JYbPzA-h2dx&index=2&t=2s>

Hemp Numbers in 2019

- ◎ Various estimates:
 - ◎ 512,000 acres licensed for industrial hemp
 - ◎ ~300,000 acres actually planted?
 - ◎ 132,000 to 160,000 acres actually harvested for CBD?—thus CBD acreage increased about 2/3 in one year from ~78,000 acres in 2018
 - ◎ 88% of acres for industrial hemp

U.S. Food & Drug Administration

- ⦿ Hemp grain & hemp seed oil: Designated as “Safe” for human consumption.
- ⦿ CBD has **not** received the same designation.
 - ⦿ Currently no action on the part of FDA.
 - ⦿ Further ruling on the part of FDA could curtail the insertion of CBD in food & drink.
 - ⦿ Many companies sent letters reprimanding them for unfounded claims of CBD benefits.

FDA, Nov.-Dec. 2019

- ◎ FDA is aware that some companies are marketing products containing cannabis and cannabis-derived compounds in ways that violate the Federal Food, Drug and Cosmetic Act (FD&C Act).
- ◎ This may put the health and safety of consumers at risk.

FDA, Nov.-Dec. 2019

- ⦿ FDA News Release, 11/25/2019: “FDA warns 15 companies for illegally selling various products containing cannabidiol (CBD) as agency details safety concerns.”
- ⦿ The U.S. Food & Drug Administration updated its stance on CBD Dec. 2, 2019, saying that the cannabis derivative may have the potential to harm users.
- ⦿ “We remain concerned that some people wrongly think that the myriad of CBD products on the market, many of which are illegal, have been evaluated by the FDA and determined to be safe, or that trying CBD ‘can’t hurt’ (Dr. Amy Abernathy, FDA principal deputy commissioner, December 2019).

Examples of Medical Comments

- ⦿ Mayo Clinic: “Although some research appears to indicate that CBD might hold benefit for treating anxiety-related disorders, more study is needed.”
- ⦿ Harvard Health Blog: “More study in humans is needed in this area to substantiated the claims of CBD proponents about pain control.”

Texas A&M Agriculture & Food Policy Center (AFPC)

- **Early** budgets for Texas industrial hemp (per acre).
- Many projections, many estimates:
 - What price to use for CBD, grain, fiber?
 - What yield to put in budgets?
 - Some crops could be dual purpose (no budgets yet)
 - Budgets will differ depending on the region of the state (for example, drying costs may be different in coastal Texas vs. High Plains where there is also irrigation costs).

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Agriculture & Food Policy Center (AFPC)

- **Early** budgets for Texas industrial hemp (per acre)
- Many projections, many estimates
 - What price to use? What yield to put in budgets?
- **CBD**: Revenue \$22,700 – Variable Costs \$16,800 = **\$5,900** (Break even price is \$1.56 per 1% per dried pound of flower/biomass)
- **Grain**: Revenue \$700 – Variable Costs \$517 = **\$183**
- **Fiber**: Revenue \$720 – Variable Costs \$819 = **-\$99**

Final Thoughts (Knapek)

- ◎ Many opportunities in hemp
- ◎ Uncertainty is very high
- ◎ CBD drives the market
- ◎ Rough & Tumble Prospects
- ◎ Among producers: Losers = winners?