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Update and Viability of Hemp in Grayson County, TX

On June 10th Governor Abbott signed a bill into law that legalizes the production of industrial hemp under a state regulated program in Texas. There are still several issues that must be resolved before anyone can legally cultivate hemp in Texas.

First off, the USDA needs to produce guidelines and regulations for industrial hemp production and licensing. After that, the Texas Department of Agriculture will need to create licensing procedures that the USDA will have to approve. When those things have happened, then it will be legal to produce hemp under TDA supervision in Texas. Part of that supervision will most likely involve testing the crop for tetrahydrocannabinol, or THC, levels to prevent production of marijuana. Another legal factor to consider is that as of the time of publication the legality of transporting hemp seeds and plant product across state lines is fuzzy. Enforcement of laws seems to vary by state and even by county and municipality. Seed and fibers would need to be bought and sold in Texas or imported internationally to be completely safe. Think, "You can beat the rap but you won't beat the ride." The details of the licensing procedures and transportation rules likely won't be ironed out until next year.

Before I get too far into the history and production, I have to say that it didn't take long for me to figure out that hemp production probably won't work well for most farmers in Grayson County. In dense, poorly drained soils, hemp seedlings fail to establish a good stand due to damping-off. That means for most of the Blackland Prairie with thick Houston clay, it is likely that hemp will not be profitable. For the western side of the county and the slice of Denison with sandy soil, production may still be a possibility.

However, that still leaves the question of where to sell your product. The first question you should ask before beginning a new enterprise is does anyone want to buy what I'm selling. At the time of publication there is no post-harvest transformation facilities within 100 miles, which is generally regarded as the maximum distance to transport hemp products, especially fiber, and still profit. The closest company I could find has their plant in Oklahoma City. My recommendation would be to consider incorporating fiber or seed processing machinery into your production. This would serve to increase the value of your product and provide a potential extra source of income if you are able to process fiber or seed for other local producers.

Hemp is a variety of *Cannabis sativa* that has been selected for quantities other than THC content. Hemp is grown for fiber and seed production and has been an important crop historically in the United States until its cultivation was banned because of its relation to marijuana. Testing for THC content wasn't possible until the 1960's.

The 2014 Farm Bill legalized pilot programs of hemp production in some states. The 2018 Farm Bill legalized supervised industrial production of hemp for fiber and seed.

As stated, hemp struggles in heavy soils, but thrives in well drained soils with good structure. Hemp is a determinant crop that begins flowering after the night length reaches a critical point. It is best to plant when soil temperatures reach 46 degrees and there is no danger of hard frost. Hemp can be seeded in rows or broadcast at 25 to 40 pounds per acre for seed, and 40 to 80 pounds per acre for fiber. There are no herbicides labeled for hemp so higher plant density to shade out weeds is recommended. Hemp does suffer from several different pests and diseases, more than can be briefly discussed here, but no

pesticides are labeled for hemp either, so the best policy is proper irrigation and fertility to promote strong and healthy plants able to tolerate infestations and infections.

Hemp for fiber is harvested in the early stages of flowering and left in the field to rot or undergo a process that breaks the inner and outer fibers because of exposure to the elements. This allows the leaves to decompose and return organic matter to the soil as well.

Hemp for seeds are harvested when the seeds begin to shatter generally around 22% moisture and 70% seed maturity. Special combines have been developed to avoid fibers clogging equipment, and shorter growing varieties are recommended for seed production.

Hemp does require fertilizer for a productive crop. Fertility recommendations for both seed and fiber are around 130 lbs of nitrogen, 30 lbs of phosphorous, and 30 lbs of potassium per acre. The soil pH needs to be between 6 and 7, with adequate sulfur available.

If you're interested in growing hemp, come see me in my office and we'll figure out if it's right for you.

References:

Harper, Jayson K., et al. "Industrial Hemp Production." *Penn State Extension*, Penn State Extension, 2 June 2019, extension.psu.edu/industrial-hemp-production.

"Hemp Insect Factsheets." *Hemp Insect*, Colorado State University, hempinsects.agsci.colostate.edu/hemp-insects-text/.

"Hemp Production." *Purdue Industrial Hemp Project*, dev.purduehemp.org/hemp-production/.