



AGECON-19-06PR

August 30, 2019

## Hemp Production Economics: Current Situation in Georgia

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Currently, the University of Georgia does not have enough information to develop enterprise budgets and other economic tools for producers and stakeholders within the state. On the production side, yields and inputs specific to Georgia are needed. On the revenue side, prices are needed but will not be available until the industry is more fully developed. Reliance on yields, input usage, and prices from other states is risky given the potential variability in soil and weather conditions from state-to-state. Until such time as research based production trials have been completed, it will be difficult to develop production budgets for Georgia.

***As such, this guide is meant to point out the growth in the hemp product market and resources currently available that can help guide the decision making process for those interested in establishing hemp production and processing operations. Further, this guide is meant to also point out the economic risks associated with hemp production and processing.***

### *Current Market*

U.S. production of hemp is small compared to other countries in the world. Notably, China produces many of the non-CBD oil hemp products. Within the CBD oil market, Canada is a major player. With respect to U.S. production, hemp acreage grew by 204% from 2017 to 2018, from just over 25,000 acres to over 78,000 acres (votehemp.com 2018). This number is expected to rise substantially in 2019 as more states legalize production and new firms enter the market.

CBD oil has been identified as potentially the most profitable outputs from hemp production. The CBD oil market is projected to be \$5 billion in 2019 which is up from \$620 million in 2018 (Williams, 2019). Further, the market is expected to reach almost \$15-24 billion by 2023 (Dorbian, 2019; Williams, 2019).

### *State Specific Costs*

The current Georgia Department of Agriculture rules have been released for comment through August 12, 2019. As proposed, the rules require a \$25,000 up-front application fee and \$10,000

per year renewal fee for hemp processing. The Hemp Grower License fee is \$50.00 per acre cultivated up to a maximum application fee of \$5,000.

### *Budgets*

Currently, there are no budgets available for Georgia. However, several budgets do exist in nearby states, notably Tennessee

(<https://extension.tennessee.edu/publications/Documents/D41.pdf>) and Kentucky

([https://hemp.ca.uky.edu/sites/hemp.ca.uky.edu/files/hemp\\_and\\_cdb\\_enterprise\\_budgets\\_6\\_18\\_2019.xlsx](https://hemp.ca.uky.edu/sites/hemp.ca.uky.edu/files/hemp_and_cdb_enterprise_budgets_6_18_2019.xlsx)). These can be used as a guide but producers need to consider potential differences

in growing conditions, production methods, and input prices. Producers need to also be aware that existing enterprise budgets do not always include all necessary costs. For example, the Kentucky budget only includes variable costs, thus fixed expenses such as machinery and land costs are not included. Thus treat these budgets as an initial guide for further investigation.

Theoretically, a producer could plant increasing acreage to make hemp production more profitable; however, profitability is restricted by price and processing limitations. Processing operations may limit the amount of acreage per producer or limit the quantity of floral matter, which would limit production acreage. Second, as production acreage increases the price will most likely drop. Thus, before going into production, producers need to determine how many acres they can and will produce in order to assess profitability. Producers should then also consider nearby state production which has been increasing substantially this year in Kentucky, Tennessee, and South Carolina.

### *Risks*

As potential producers begin making decisions on whether to apply for a producer permit, numerous risks should be considered. Several issues have occurred in other states.

**Dropping prices:** producers in hemp producing states have experienced considerable price drops from planting to harvest. Some of the price drops have been 100% or more. Further, state-to-state prices vary considerably, see <https://mjbizdaily.com/wp-content/uploads/2018/04/Hemp-Report-Top-10-US-States.pdf> as an example.

**Delayed Payment:** Producers in some states have experienced delayed payments for their harvest. Notably, one state's producers waited a year and a half for payment.

**Leverage:** Current regulations require a producer to have a contract with a processor and processors to have a set number of producers before a permit to produce/process will be issued. Given there are potentially more producers than processors, processors will have leverage over the producers. This may create situations where producers are left with no processor if the producer cannot meet processor requirements, such as for quantity, quality, or price.

**Large Players in the Market:** Supply of hemp is increasing every year. Thereby, the prices are in constant flux. As larger firms enter the market, these firms will have economies of scale on

smaller producers thereby impacting the market. For instance, ColorPoint (one of the largest greenhouse/nursery producers in the U.S.) recently sold off over five million square feet of greenhouse space and 200+ acres of nursery space to a hemp production firm (Wright, 2019). As these large firms enter/expand in the market, the hemp market will remain volatile.

THC Levels: Production of hemp requires THC levels to be no more than 0.3%. There are many factors that can cause an increase in THC levels (i.e. varietal differences, harvest times, production practices, weather, etc.) and when that occurs the plant must be destroyed, thus resulting in a total loss of production costs with no potential for revenue.

### *Profitability*

Currently, we do not know how profitable hemp production in Georgia will be given the industry is in its infancy. The resources above should be used as a guide to help producers in their decision process.

### *References*

Dorbian, I. 2019. CBD Market Could Reach \$20 Billion by 2024, Says New Study. Forbes.com. 20<sup>th</sup> May. <https://www.forbes.com/sites/irisdorbian/2019/05/20/cbd-market-could-reach-20-billion-by-2024-says-new-study/#71ff215d49d0>

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Williams, S. 2019. U.S. CBD Sales to Grow an Average of 107% Annually Through 2023. The Motley Fool. 14<sup>th</sup> July. <https://www.fool.com/investing/2019/07/14/us-cbd-sales-to-grow-an-average-of-107-annually-th.aspx>

Wright, J. 2019. ColorPoint to Transition to Full Hemp Production in Merger with AgTech Scientific. Greenhouse Grower. 2<sup>nd</sup> June. <https://www.greenhousegrower.com/management/colorpoint-to-transition-to-full-hemp-production-in-merger-with-agtech-scientific/>

