

Externalities with Establishing Hemp Production/Processing

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As production of hemp increases throughout the Southeast, producers and potential producers need to be aware of issues that may result from establishing production and processing operations. Notably, the impact these operations may have on their neighbors and communities can create business challenges that should be considered before beginning operations.

In economics, these side effects or unintended consequences are referred to as externalities. These unintended effects can be positive or negative. Potential negative externalities may include impacts on air quality (i.e., smells), increases in crime, and/or increased public scrutiny of an area. Though these issues may not impact every producer, it is essential that producers and potential producers consider possible negative externalities and plan for how they can respond to alleviate these concerns.

With respect to hemp, the negative externalities are of particular importance given that many agricultural entities in the state rely on the support of their county, community, and/or neighbors for survival. For instance, greenhouse/nursery operations may sell some or all of their product to local residents. Moving production to hemp could cause an issue if their communities experience or perceive they experience a negative externality. Issues could be not purchasing products from the greenhouse/nursery, enacting ordinances to limit the operation, or enacting policies to increase production costs. The potential for negative pushback is not limited to greenhouse/nursery operations, but extends across the agricultural supply chain.

Using data from a 2019 online survey of residents throughout the Southeastern U.S., we examine potential negative externalities associated with establishing hemp production/processing in an area. Nine Southeastern U.S. states were surveyed with between 200-250 respondents from each of the following states, Alabama, Florida, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee and approximately 450 respondents from Georgia.

Concern about Living Next to Hemp Production and Processing

Respondents of the survey were generally “Somewhat Concerned” about living next to hemp production and processing. On a 100-point concern scale where 0 represents “No Concern,” 50 is “Somewhat Concerned,” and 100 is “Extremely Concerned,” respondents averaged a score of 40.5 for living near production activities and 42.6 for living near a processing facility. Notably, 10-11% had “No Concern” with 6-7% being “Extremely Concerned.”

For production, the average concern level was similar, ranging from 35.1 in North Carolina to 46.7 in Florida (Table 1). Similarly, concern for living near a processing operation ranged from 38.3 in North Carolina to 48.9 in Georgia. Further, between 5% and 13.9% of respondents had “No Concern” over living near hemp production, while between 5% and 12.8% had “No Concern” about living near a hemp processing facility. In contrast, between 3.8% and 7.6% of respondents were “Extremely Concerned” about living near hemp production, while respondents who were “Extremely Concerned” about living near a hemp processing facility ranged between 4.3% and 9.9%.

Table 1. Level of Concern for Living Near a Hemp Production or Processing Operation.

	Mean Level of Concern	Standard Deviation	Percent “No Concern”	Percent “Extremely Concerned”
Production only				
Alabama	42.6	33.3	10.2%	7.4%
Florida	46.7	33.9	5.0%	5.9%
Georgia	40.2	31.3	9.8%	4.5%
Kentucky	39.4	32.3	11.9%	7.6%
Louisiana	42.3	33.1	7.7%	8.2%
Mississippi	43.1	32.4	11.5%	6.8%
North Carolina	35.1	32.9	13.6%	3.8%
South Carolina	37.1	32.0	12.1%	5.2%
Tennessee	39.5	34.3	13.9%	6.4%
Processing only				
Alabama	43.8	32.6	9.3%	6.5%
Florida	48.9	34.1	5.0%	6.7%
Georgia	42.5	31.9	8.9%	4.9%
Kentucky	40.2	32.5	10.5%	7.1%
Louisiana	44.4	33.1	6.7%	9.6%
Mississippi	43.3	33.1	10.4%	7.3%
North Carolina	38.3	33.2	12.8%	4.3%
South Carolina	39.0	32.5	10.5%	5.7%
Tennessee	43.5	35.2	9.5%	9.9%

Environmental Externalities

Hemp production and processing impact on the air was consistently listed as a concern by respondents (Figure 1 and 2). Given hemp production can create issues with a “skunky” smell in the air, this could be a realistic externality that communities and residents experience. For instance, the smell from hemp fields in Oregon are causing illness and issues between producers and the community (Eltouny, 2018; Tornay, 2018).

Figure 1. Perceived Negative Environmental Externalities Associated with *Production* of Hemp

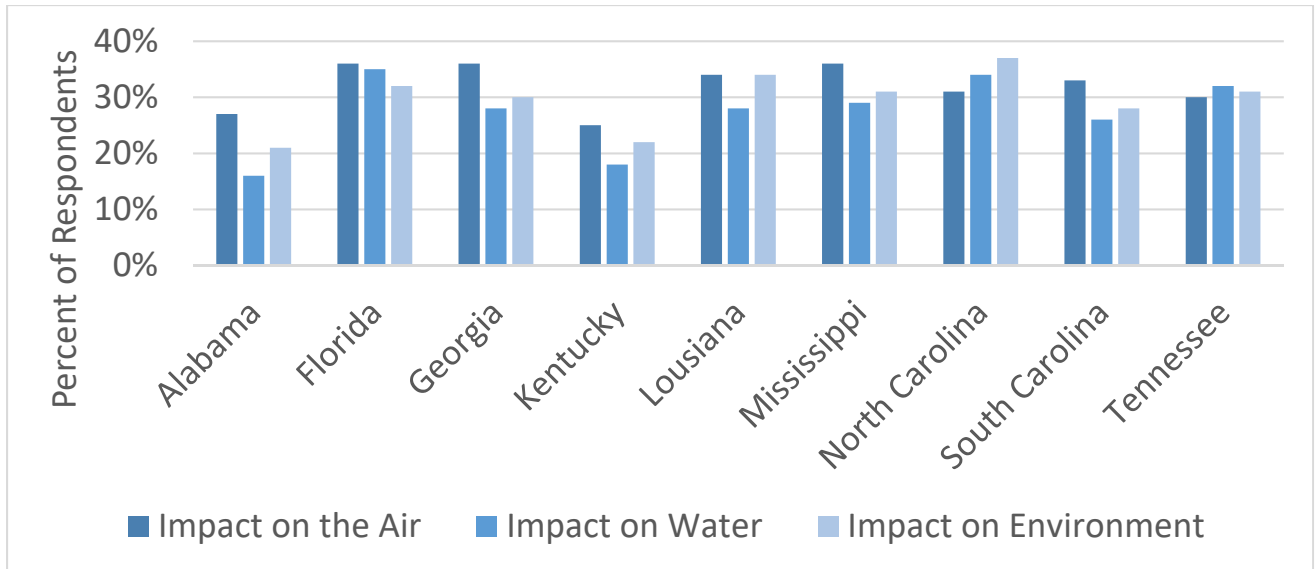
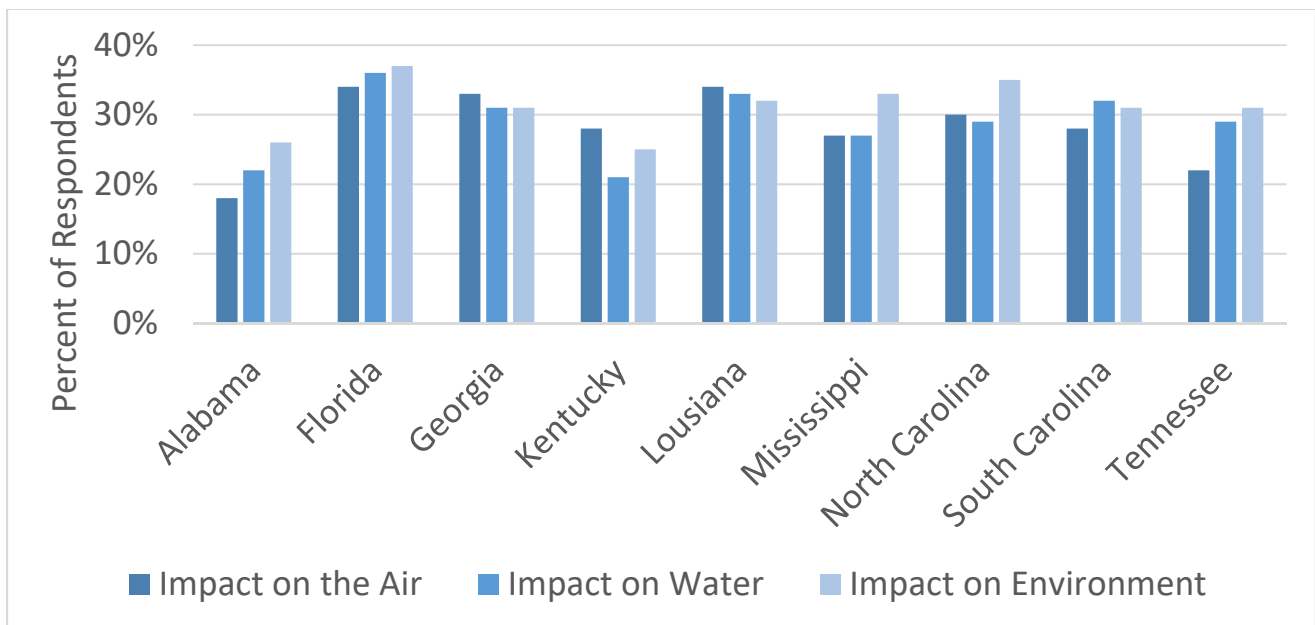


Figure 2. Perceived Negative Environmental Externalities Associated with *Processing* of Hemp



Social Externalities

For both hemp production and processing, the potential for illegal activity was listed as the top social concern across all states with 40% or more of respondents indicating that this was an issue (Figure 3 and 4). In fact, the proposed hemp production and processing rules from the Georgia Department of Agriculture includes stipulations that limit unauthorized access and mandate reasonable security measures. This may or may not be sufficient to address respondents' issues as defined in our survey.

Figure 3. Perceived Negative Social Externalities Associated with *Production* of Hemp

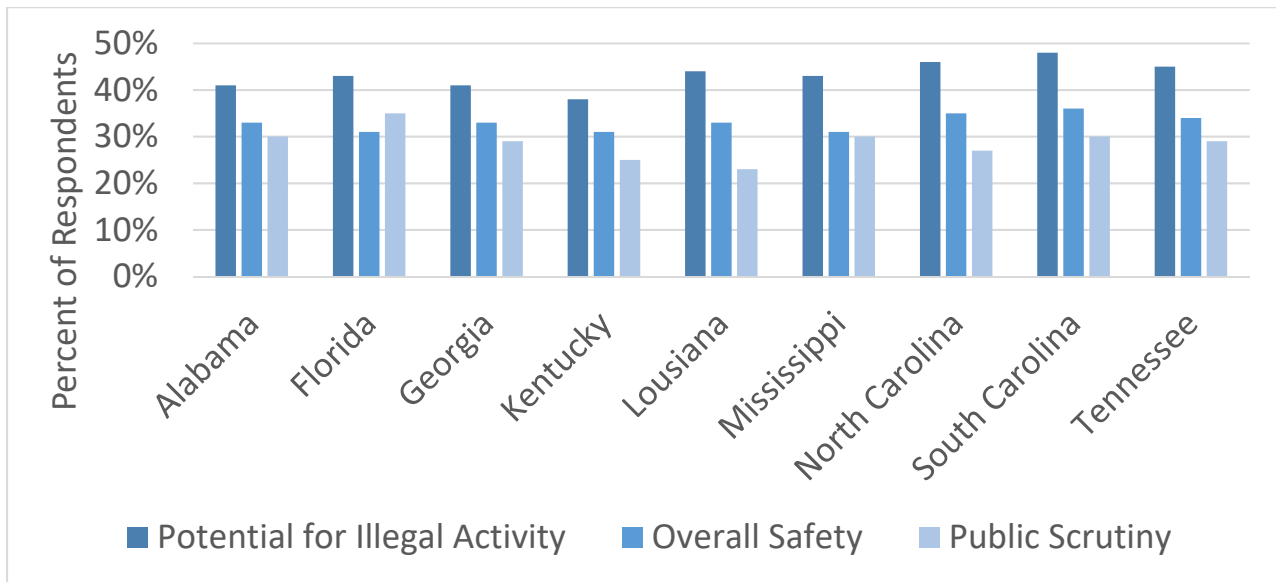
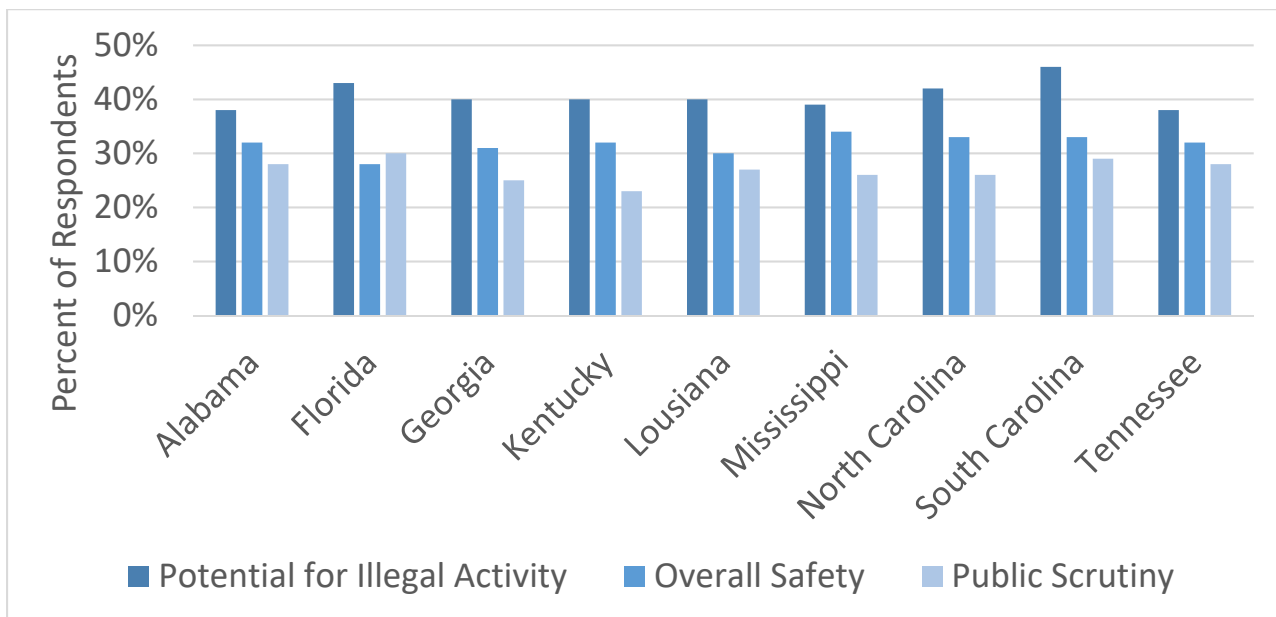


Figure 4. Perceived Negative Social Externalities Associated with *Processing* of Hemp



Conclusions

The over-arching goal of this factsheet is to make producers and potential producers aware that negative externalities exist within hemp production and processing. Whether these are real or perceived, businesses need to consider that perception is reality. As such, before making decisions, producers should reach out to their neighbors, communities, and county policy makers or regulators to identify their concerns and work toward establishing a satisfactory outcome for all involved.

References

- Eltouny, L. 2018. Field of Drying Hemp in Bend Causes a Stink. 30th October.
<https://www.ktvz.com/news/field-of-drying-hemp-in-bend-causes-a-stink/833057505>
- Tornay, K. 2018. School Sours on Scent of Hemp. Mail Tribune. 27th November.
<https://mailtribune.com/news/top-stories/school-sours-on-stench-of-hemp>

