

Overall Cultivation Canopy Measurements:

It is my understanding that the proposed cultivation license tiers and square footage is for overall canopy, not exclusively flowering canopy. This creates several issues for cultivators and a potential challenge for the state to meet expected supply for the market demand.

Generally cultivators need an equivalent of between 10-15% of the size of their flowering canopy for vegetative plants, mothers, and clones to support their operations.

In Humboldt County I'm taxed on my permitted cultivation square footage by flowering canopy, while the county allows my nursery, propagation, and r & d areas to be included in my operation plans tax free, as those areas are a necessity for my operations and require overhead but do not produce revenue directly.

I am concerned that this will limit all of the licensed cultivators in Vermont's success, and potentially cause the smallest operators to fail financially as they will not have enough flowering canopy to make a profit if 10-15% of their licensed canopy is going to vegetative, mother plants, clones, and r&d spaces, which have costly overhead and don't generate revenue. This would also force many licensed cultivators to purchase plants (clones, seed starts, seeds) from other sources which would create liability and risk of bringing in pests such as insects, pathogens, and plant viruses that could damage crops and ruin facilities, as well as the risk of growing inferior genetics that would negatively impact a product's value or market demand.

I would urge and advise to CCB to require growers to submit operation plans with detailed vegetative, mother plants, clones, and r&d space requirements for their specific operations, and approve up to 15% above the licensed cultivation square footage for this purpose on a case by case basis.

Other options to alleviate this issue would be to increase the proposed license square footage tiers by 15%, or include an option for vegetative space licenses with a lower annual cost as these areas generally don't generate revenue.

I believe leaving the proposed regulation as is will create major problems for most cultivators, and not only risk the failure of farmers but also risk the state's retailers being able to meet the expected consumer demand if 10-15% of the state's licensed square footage is going to vegetative non flowering plants rather than flower production.

Mixed Light:

I see in the proposed regulations there is no specific license type for mixed light/light deprivation. Mixed light can be defined several ways. State of the art light assisted greenhouses use light deprivation for potential year round crops, similar to indoors.

However many outdoor growers use low tech light deprivation techniques in hi-tunnels or hoop houses with temporary supplemental lighting to pull 2 or 3 crops in one outdoor season.

California currently considers both of those scenarios mixed light cultivation and offers several tiers of licensing. For instance one of my state licenses is for small mixed light up to 10,000 square feet. In Humboldt county the cultivation tax is separated by indoor, outdoor, and mixed light. I pay \$1 per square foot of outdoor cultivation space while I'm charged \$2 per square foot for my mixed light spaces.

My mixed light cultivation consists of 9 hoop houses. We run supplemental light seasonally and only for several hours a day for only several weeks in the spring, and up to 2 weeks in the summer. The supplemental lighting in this scenario is used to keep the plants in a vegetative state until ready for flowering by extending the daily photoperiod by several hours. We use construction lighting cords with a low wattage compact fluorescent bulb every 8-10 feet for a total of only 2.6 watts per square foot on average. This is an extremely low lighting footprint and very minor electrical consumption (solar power is for this purpose on my farm). In California and in Humboldt county there is actually talk of defining light deprivation cultivation

using less than 15 watts per square foot as outdoor and lowering the tax fee and licensing cost.

I would invite a discussion for Vermont to create a low electrical use light deprivation category with a license fee lower than indoor but higher than outdoor, or allow “outdoor” growers to operate in hoop houses, cold frames, hi-tunnels, and even greenhouses with low and seasonal lighting use.

I also would strongly recommend offering a mixed light option for year round greenhouses with a more intense lighting footprint, as considering this indoor would be inaccurate.

Light deprivation can be a critical part of a small outdoor farms operations. Many small farmers are limited by labor, infrastructure, seasonal sales, and limited options for financing. If some small farms only have a full season outdoor crop they can be overwhelmed with workload and limited dry space in the fall. Once their dry space is full, ripe product in the field can become overripe and degrade in quality and lose value, or even rot. For some small farmers utilizing light deprivation, they can harvest a portion of their crop in the summer and plan a staggered harvest to not overwhelm their dry space and limited labor capabilities in the fall.

Also Cannabis does not have a long shelf life. For an outdoor farmer with only a full season crop, sales are seasonal usually between November-June. By the end of June even properly stored flower will degrade for most farmers, and fresh light deprivation crops will become available, lowering the price of last seasons outdoor. By a small outdoor farmer diversifying their crop with light deprivation, rather than worrying about keeping up with overhead costs from seasonal sales, they can count on a summer crop and year round revenue to support their business. I think this is a very important option to help small Vermont farms manage their operations and become successful.