

**From:** Alison Rivas <[ali@oxaliscalifornia.com](mailto:ali@oxaliscalifornia.com)>  
**Sent:** Friday, May 14, 2021 2:06 PM  
**To:** Adler, Elanah <[EAdler@co.humboldt.ca.us](mailto:EAdler@co.humboldt.ca.us)>  
**Cc:** Holly Carter <[holly@oxaliscalifornia.com](mailto:holly@oxaliscalifornia.com)>; Richardson, Michael <[MRichardson@co.humboldt.ca.us](mailto:MRichardson@co.humboldt.ca.us)>  
**Subject:** Re: CCLUO Revisions, request for feedback on lighting provisions

Hello Lana,

Thank you again for sharing your thoughts and openness to feedback. I hope I can provide a little more operational insight into the lighting discussion, as well as the nursery space allowance based on my observations over time. The RRR portion seems clear, I did note there is not an ultimate cap beyond the 20% of the parcel size. Do the county limits on 8 and 10 acre projects remain in effect?

I see the difference for propagation lighting (nursery/immature hereafter), though your email is asking after cultivation supplemental lighting- hope I'm on the right track.

Nursery spaces function best with a higher wattage than cultivation supplemental lighting, as the nursery space can accelerate growth to prepare for placing into (flowering) canopy areas, while the canopy areas use supplemental light to only hold the vegetative state. I think folks have limited their operations to work within the lower wattage ranges to access permits, but if we're looking into what is best for farms and getting allowance for nursery areas the following hopes to speak to potential considerations. Currently our local commercial nurseries are overwhelmed with supply demand, and are a more costly route for cultivators. If we can get more cultivators to be able to support their own needs it would help our local industry.

### **Propagation lighting**

Practices can vary here, for maintaining plants in vegetative states the 60 watt allowance works to keep the phase, however, it's minimal for increasing plant growth and can limit operating efficiency. In nurseries it can be highly beneficial to increase plant growth rate beyond maintaining the vegetative state. Typically lower wattages used for flowering canopy vegetative stage do not require as high of wattage as they are only place-holding the stage and not used for growth increase. This becomes crucial especially in light deprivation operations because it allows cultivators to make tight time requirements for speeding up immature plant growth in the nursery to be large enough for successive planting rounds into the flowering areas. Immature plants typically must move to flowering canopy areas immediately after the soil has been prepared post harvest. Though some would not be able to use the higher wattage due to energy requirements I think it would be most supportive for those with proper power access to be able to get up to 600 watts, and I had discussions with four experienced nursery operators who called for 600-1000 watts as reasonable and necessary for growth. I realize this is a vast difference in what is proposed, but I hope the difference on timing and phases between nursery and flowering stages and areas provides some insight. Fewer bulbs would be required, and a higher wattage over a shorter period of time in the nursery area could even decrease the total energy consumption, as well as decreasing ancillary fuel consumption and wear and tear on roads from decreased staffing hours required for maintaining nursery spaces for shorter periods.

Another way to consider writing this is using wattage per square foot in the propagation areas rather than individual bulbs, especially if electricity use is the concern. This would allow for higher wattage bulbs, which could be spaced reasonably to achieve perhaps anywhere between 8-30 watts/SF. It would also place an energy cap, and allow for flexibility for operators to choose what lighting is best for any time (high growth vs low growth needs in vegetative phase) while still meeting the requirements without the potential need to call out every bulb wattage at one time as may differ pending on the amount of growth needed over various times in vegetative stage.

For the state licensing guidelines, Outdoor and Mixed-Light licenses are allowed to have supplemental lighting in their immature areas. There is no specification of wattage allowance outside of the canopy areas (eg: mixed light tier 1 up to 6 watts/SF in flowering areas) written into current regulation. Identifying watts per bulb and per SF are required for canopy areas, but they are not required for any immature areas on any type of cultivation license including commercial nurseries. Folks have/should be navigating the nursery areas by matching their county area allowance and submitting to the state the nursery size in dimensions and square feet only.

### Nursery size

Glad to see the potential increase here, it's critical to operations, especially light deprivation and mixed light. Due to the timing of harvest and replanting for successive cultivation rounds the current allowance of 10% nursery space stunts operations and product production. The increase to 25% is better, but I see **at least** the need for up to 35% for operations to be seamless, especially for those who have both mother plants and immature plants growing at the same time during certain portions of the season. Mothers can get quite large. Even without mother plants most nursery areas I've seen have significant crowding of their immature plants in the propagation areas, which affects the growth pattern and doesn't set them up for maximum production based on plant structure (they become taller and more spindly rather than bushing out and increasing lateral bud growth).

Quick support note on existing permits- I hope there may be an allowance for those who came in early to modify their permits if the county chooses to increase nursery space size. It can be a hard choice if not, operators would need to meet other measures not originally placed in their permit allowance. I'm concerned for the small operators being able to stay viable as larger entities come online, especially when so much time and resources have been placed into these projects to help us all get to refining the ordinance.

I'd be happy to get on a call or more here if more questions or clarifications would help.

Thanks for all you do,

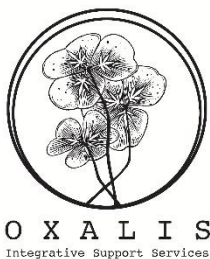
Ali

Alison Rivas

o.707.923.3753

c: 831.246.4848

[ali@oxaliscalifornia.com](mailto:ali@oxaliscalifornia.com)



OXALIS

901 A Redwood DR

Garberville CA 95542

[www.oxaliscalifornia.com](http://www.oxaliscalifornia.com)

**From:** Dolf, Jeff <[JDolf@co.humboldt.ca.us](mailto:JDolf@co.humboldt.ca.us)>  
**Sent:** Wednesday, May 19, 2021 4:15 PM  
**To:** Adler, Elanah <[EAdler@co.humboldt.ca.us](mailto:EAdler@co.humboldt.ca.us)>  
**Subject:** RE: CCLUO Revisions, request for feedback on lighting provisions

Hi Elanah,

Thank you for your patience waiting responses to comments on the proposed changes to the CCLUO. I have shared and discussed the revisions with field staff who perform State license cultivation site inspections and their observations are:

Staff frequently observe low wattage string lights in greenhouses, which are not necessarily used for supplemental lighting but rather because cultivators claim that CalOSHA requires them to provide supplemental lighting for the safety of employees working in the greenhouses at night. Of course the use of low wattage string lights to maintain plants in the vegetative state is common especially early in the season. Some cultivators remove the lights and some leave them up. CalCannabis view is in this situation cultivators must have a mixed-light license and a lighting diagram explaining when the lights are used and when they are removed.

Of course Planning is aware that CalCannabis considers any supplemental lighting to be inconsistent with an outdoor license even when the licensee asserts that the lights are in place for the safety of employees. Staff has asked CalCannabis for an interpretation and was told they are reviewing the CalOSHA requirements, but seemed skeptical of the claim the supplemental lights are in place to comply with OSHA requirements. We still do not have a definitive answer from CalCannabis on supplemental lighting for the safety of employees. Staff mentioned it is common for farms that use light deprivation to have an outdoor permit, a mixed-light tier 1 license and to have work lights hanging in hoop houses. In this case, for the State license the work lights need to be added to their lighting diagram, but their presence is not in conflict with the license type, but is with the permit type.

I hope this feedback is helpful.

Jeff