Subject: Fwd: BioChamber Humidity
From: Nicole Merrill <merrill.n@husky.neu.edu>
Date: 9/8/16, 10:39 AM
To: Elizabeth Wolkovich <lizzie@oeb.harvard.edu>

Lizzie,

So Kea spoke with the manufacturers and it seems the chambers themselves won't be able to run at a higher humidity, but there are some techniques we could use to try and boost humidity. Another thing Kea mentioned when she talked to me was that at the lower temperatures, definitely the lowest temp treatment and maybe the second lowest as well, the humidity would probably not be able to go as low as 47.5 %. She doesn't think the lowest the temp chamber will run below 80% humidity. I'm not sure how his affects what you want to do for the chambers. Let me know what you decide.

Best,

Nicole

Begin forwarded message:

> **From:** "Woodruff, Kea J" <kwoodruff@fas.harvard.edu>
> **Date:** September 8, 2016 at 10:27:32 AM EDT
> **To:** "Merrill, Nicole K" <merrill.n@husky.neu.edu>
> **Subject: RE: BioChamber Humidity**
>
> Hi Nicole,
> I just talked with the technicians at BioChambers. The mist system in the chambers cannot maintain high humidity at high temperatures (or low humidity at low temperatures). The temp/RH continuum runs from 90% RH at 20 C or below, to 40% RH at 40 C. To boost that humidity a small amount at the higher temperatures, we can try reducing the evaporator fan speed, from 85 (default setting) to about 60. We could also try to plug in portable humidifiers inside the chambers. There are two concerns with this approach – a) they take up space you need for pots, and b) they can't maintain a specific humidity, they simply run on low or high speed. Another factor to consider is that the humidity will most likely be different with plants in the chambers; I expect all the chambers will run at slightly higher humidities once there are plants inside.
> Kea
>
> **From:** Nicole Merrill [mailto:merrill.n@husky.neu.edu]
> **Sent:** Wednesday, September 7, 2016 6:25 PM
> **To:** Woodruff, Kea J <kwoodruff@fas.harvard.edu>
> **Subject:** BioChamber Humidity
>
> Kea,
>
> I just started trying to set up the BioChambers and I got a message saying that the equipment was not designed for relative humidity above 47.5% at 37 C. Is there any way to override this? We were hoping to have the humidity at 80% in all the chambers.
>
> Thanks,

Nicole