Plant Growth Facilities Faculty Advisory Committee Meeting Minutes – November 2, 2021

The meeting started at 4:02 PM

Members Present: Ming Guo, Jinliang Yang, Stacy Adams, Katarzyna (Kasia) Glowacka, Sabrina Russo, Amit Mitra

Ex-Officio Members Present: Hector Santiago, Matt Anderson, Amy Hilske, Scott Sattler

Approval of Minutes of the July 21, 2021, Meeting – Sabrina Russo moved to approve the minutes of the July 21, 2021 meeting; Jinliang Yang seconded. The minutes were approved without changes.

Updates from Amy Hilske –

- Received $45,000 in funding from NRI; looking for larger growth (medium size) chamber on East Campus
  - Current chambers are always full, but newer growth chambers tend to break down. (i.e. blown 4 compressors in the last 6 months because of acid in the line)
  - Everything is on our dime because they are out of warranty.
  - Not considering going with Conviron again, but instead looking at bio chambers.
- One staff member deployed until May 2022, and we are short staffed now but continue looking for staff/students.
  - It’s been a struggle but have been managing as is.
  - There are more online groups and professors that want partial full service to be done by greenhouse staff, but haven’t been able to accomplish all of that because they haven’t been able to find technicians themselves.
  - Undergraduate rate of pay now starts at $11/hour.
- Stacy and Amy met to go over plant science teaching greenhouse.
  - Updates including replacing windows, adding window air conditioner, repainting, two new greenhouse aluminum doors, and LED lights have been made.
  - A lot of funding came from UNL Facilities, but the rest was picked up by greenhouse funds.
  - Struggle with marketing issues and recruiting students.

Updates from Hector Santiago –

- We are currently facing a lot of retention issues for ag research technicians. The salary comparison to industry is way behind.
  - Market assessments have been done and we have a plan to bridge the gap to get to higher entry salaries.
    The current gap is huge and will take around 2 years. Within the next year, hope to close the gap by 50%.

- Ag research infrastructure – language in the bill to appropriate funding up to 3.8 billion dollars. In the proposal, we can ask for full amount and we don’t have to match. USDA-NIFA will be the entity to put out request for proposals and manage the competitive process.
  - This funding is specifically for colleges of agriculture, so not outside of IANR in UNL’s case.
  - It is a competitive process – only thing they will do is carve a part for those that can’t compete.
  - First step, identify our exact needs – in terms of square footage and type of facilities.

Agenda Items –

Greenhouse Facility Safety/Security:

- A current challenge is the layout of each facility.
  - Beadle Center – the main door used to be open, but since the health center and nursing college was built, patients were entering. After COVID, the door is locked at all times, and only those with card access can enter. No theft or damage.
  - East Campus – there is currently no card access system but a key code system is used to enter instead. Prior to COVID, the plan was to renumber and recode everything, but was put off during COVID – planning to do that January 1.
- There has been vandalism on the outside within the last 5-6 years, which led to adding cameras to track who is coming and going.
- There have been random people walking in during the day with those that have access to see what was there, but nothing was stolen. This led to the large recoding project.
- Any hemp that is grown, is on the down low, but we do have authorization from Department of Ag to have it.

**Action Item:** Look into the possibility of adding a motion detected light in the long hallway.

**Greenhouse Proposal:**

- **Plant Growth/Environmental Facility** – document that has been worked on for a couple of years.
  - Current Facilities: Newest are the Beadle Greenhouses – 1995; the mass of greenhouses built in 1976 with a renovation in 1989 and repairs in 1998; the old houses they are working on were built in the 1920’s and renovated in 1992.
  - Most critical components to emphasize is how important agriculture is to Nebraska and the economy.
  - Document should be short and impactful.
    - Specifics of what we’re dealing with and consider conducting a SWOT analysis. Work could be greatly enhanced if we had better facilities.
    - Demonstrate relative disparity – can we frame it to show we need a lot of money to be up to par with other institutions?
    - One thing to stress clearly – we need the facilities to attract, hire and retain our faculty.
  - There are some researchers that feel they could expand their programs if we had double what we have in Beadle. Not increase in plant populations, but yields could be better.
- **Design** - Most greenhouses on east and city campuses are 1000 sq ft. NIC has 1600 sq ft rooms but it is more difficult to maintain pest and contamination of other crops
  - Things to consider include the size of each room and if hallways are incorporated into the space – at NIC they are outside the space.
  - Long hallways are wasted space and we need to consider the cost of utilities.
- **An important component of document is energy consumption** – our facilities were using thermostats in the 70’s and the university created energy management system, but it is limited. There are opportunities to have better control systems.
  - Huge emphasis area would be with sustainability issues and cost efficiencies - why do we need to pay more to run? Our researchers cannot be impacted by keeping the temperature at 62 degrees.
  - **Action Item** –
    - Stacy will send greenhouse proposal document to Lauren so she can distribute to the committee for feedback.
    - Figure out faculty to space ratio.

**Items from the Floor**

- Discussion of concern during July meeting – Stacy will see if the issue has been resolved. As a committee, we need to review the project request form to see what we are asking.

**Adjourn - Meeting adjourned at 5:12 PM.**

*Minutes respectfully submitted by Lauren Kruger.*