



# CAPITAL REQUEST

2017

## Plant Growth Research Facility

Annual repairs cost

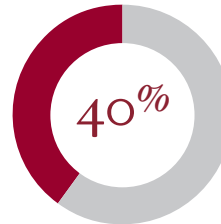
**\$65,000**

and are hampered by the presence of asbestos

**BUILT IN 1974**

the greenhouse has deteriorated and replacement parts are difficult to obtain

**WITH NEW APPROACHES TO TEACHING BIOLOGICAL SCIENCES, WE'RE IMPROVING HUMAN HEALTH AND PRODUCING FOOD AND ENERGY TO SUSTAIN THE WORLD.**



U of M plant and biological sciences enrollment is expected to increase by 40% over the next two years

Antiquated facility design does not provide the appropriate space for hands-on research and teaching.

At the U of M's College of Biological sciences, undergraduates learn biology in active-learning classrooms where they drive discussion and research. Students work side by side with faculty to produce discoveries that could lead to new crops used to feed the state and world.



# Plant Growth Research Facility

## Project Description

### Build an energy efficient facility

- Four specialized biome rooms configured as warm tropical, highland tropical, subtropical arid, and warm temperate
- Two flexible project rooms to support learning and research
- Modern temperature, humidity, ventilation, watering, shading, and lighting controls

## Benefits

### Provide hands-on learning for students and the public

- Increase hands-on learning for students and the public
- Secure the U of M's rare plant collection of over 1,200 species
- Support learning for K-12 students and community members

### Reduce energy costs

- Provide thermal separation and allow high levels of sunlight
- Use 35-50% less energy per square foot, saving more than \$15,000 annually

### Increase research activity

- Enable new faculty hires to meet grant goals
- Attract research that relies on rare plant collection and attracts millions in funding

## State request: \$4.6 million

- University investment: \$2.3 million
- Total project cost: \$6.9 million



*The greenhouse windows regularly fall out and require replacement due to the buckling building.*



*The building's insulation is threatened by a deteriorating foundation.*



*The U of M's rare plant collection provides hands-on learning opportunities for undergraduate, graduate, and K-12 students.*