



2016 Capital Request

UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Plant Growth Research Facility

Annual repairs cost

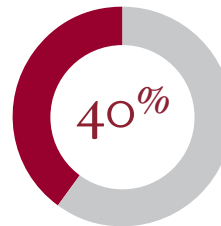
\$65,000

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: \$4.4 million

- University investment: \$2.2 million
- Total project cost: \$6.6 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.