# **Annual Assessment Report**

Academic Year: 2016-2017

Department: Plant Sciences and Plant Pathology

Program(s): Plant Biotechnology

#### 1. What Was Done

Based on our assessment plan we evaluated program learning outcomes 1-4 this year.

1. Have the knowledge required to be successful in an area of plant improvement achieved via both basic and advanced techniques.

2. Have the laboratory and plant culture skills needed to be able to function successfully in an area of plant improvement.

3. Be able to communicate effectively orally and in writing.

4. Be able to design and carry out plant genetic and/or biotechnology experiments and analyze data.

## 2. What Data Were Collected

- 1. Students ability to complete pre-designed experiments was assessed in weekly lab exercises in which each skill was first taught and demonstrated and then student's proficiency was assessed.
- 2. Skills were assessed independently for each student by allowing them each to work independently toward each project's completion.
- 3. Written skills were assessed from final semester term papers and oral skills from end of semester presentations.
- 4. Independent skills were further assessed in independent study projects.

#### 3. What Was Learned

- 1. Most students mastered the required skills by the end of the course. Those that did not would require additional independent study projects.
- 2. Most students successfully complete assigned research projects.
- 3. Most student's complete college level written reports. Those that do not should be assigned to work with the writing center.
- 4. Students success in independent study projects is highly variable dependent upon their skill and the attentiveness of the faculty sponsor.

## 4. How We Responded

- 1. Further encourage students to work in lab settings early in their education so they have more experience prior to senior level coursework.
- 2. No changes are needed relative to the list of lab and plant culture skills currently being taught.

Assessment reports are to be submitted annually to report assessment activities and results by program. The reports are due every summer with a deadline of September 15<sup>th</sup> each year.

The use of this template is entirely optional.

Note: These reports have been required by MSU policy since 2004.

3. The students are already required to turn in drafts of their papers. Those needing more help will be advised to visit the writing center.