Crop and Soil Sciences Training Plan for Responsible Conduct of Research and Scholarship for NSF Compliance - November 30, 2009

**Initial Training (Minimum 5 hours)**

1. All individuals will review relevant material on the MSU Graduate School and Research Integrity Office websites; [http://rio.msu.edu/](http://rio.msu.edu/), [http://grad.msu.edu/rcr/](http://grad.msu.edu/rcr/) and [http://grad.msu.edu/publications/docs/integrityresearch.pdf](http://grad.msu.edu/publications/docs/integrityresearch.pdf). Subjects to be reviewed include; A. Data acquisition, management, sharing and ownership, B. Publication practices and responsible authorship, C. Peer review and D. Research misconduct.

   Twice a year, the PI will discuss these and other important issues with the students, post/docs and staff.

   Total for this segment: 2-3 hours

2. Face-to-face discussion with individual P.I.s: Readings as assigned from the Graduate School “research integrity” website (under development) and from the MSU Research handbook, then sharing of each P.I. the required NSF **Conflict of Interest** form with the students/postdocs to initiate a discussion of our personal circumstances related to the funded project and to educate and provide opportunity for questions related to Conflict of Interest in general.

   Total for this segment: 30 minutes

3. Students and post-docs will take the seminar on “Research Misconduct” presented by the MSU Graduate School. They will also review the PowerPoint developed by the Graduate School on research misconduct.

   Total for this segment 1-2 hours

4. Mentor and trainee responsibilities will be reviewed at [http://grad.msu.edu/researchintegrity/docs/guidelines.pdf](http://grad.msu.edu/researchintegrity/docs/guidelines.pdf) The PI will discuss the “best practices” related to collaborative research.

   Total for this segment: 1 hour

5. If the project deals with human subject research, the individuals associated with a project will be certified by the MSU Human Research Protection Program (HRPP) [http://www.humanresearch.msu.edu/](http://www.humanresearch.msu.edu/). This training includes the online MSU tutorial for HRPP [http://35.8.104.116:591/ucrihs/ucrihs_tutorial/](http://35.8.104.116:591/ucrihs/ucrihs_tutorial/).

   Total for this segment: 2-3 hours
6. If the project deals with animal welfare, the individuals associated with this project will review the guidelines at the MSU animal research website http://www.animalresearch.msu.edu/overview.html. Total for this segment: 1-2 hours

**Refresher training (3 hours annually)**

The researchers will review newsletters from relevant websites including http://www.humanresearch.msu.edu/ and http://grad.msu.edu/researchintegrity/. Twice a year, the faculty PI will discuss important issues with the students, post/docs and staff.
Crop and Soil Sciences Responsible Conduct of Research and Scholarship Form

Student’s name_________________________________________________________

P.I. name________________________________________________________________

Project name____________________________________________________________

Funded by (if funded)_____________________________________________________

IRB # ________________________________________________________________

TOPIC .................................................. DATE completed ........ PI ....... Student/postdoc

Initials

Initial Training (5 hours)

Data acquisition, management, sharing and ownership reading and PI discussions.

Publication practices and responsible authorship reading and PI discussions.

Research misconduct seminar and reading.

Conflict of Interest reading and discussion

Mentor/Trainee Responsibilities

HRPP certification & re-certification (if needed)

Animal welfare reading (if needed)
Refresher Training (3 hours annually)

Data acquisition, management, sharing and ownership reading and PI discussions.

Publication practices and responsible authorship reading.

Research misconduct reading and PI discussions.

Conflict of Interest reading and discussion

Mentor/Trainee Responsibilities

HRPP certification & re-certification (if needed)

Animal welfare reading (if needed)