



Assessment of Core Knowledge, Critical Thinking, Scientific Methodology, and Communication Skills

(to be completed by each committee member after a student's defense)



This instrument is to be used for outcomes assessment only. It is not intended as part of your evaluation of this student's qualifications. It will not become part of their student records. Records of your responses will be kept anonymous with respect to the student. Please return the completed form to the Academic Program Coordinator. Thank you for your cooperation in assessing our educational effectiveness.

Evaluator's Name			
Student's Name			
Month/Year Student Entered Program			Month/Year of Assessment
Degree Program of Student	M.S.		Ph.D. (Crop Science)
	(Crops Emphasis)	(Soil Emphasis)	

Please give one score per row using the 1 to 5 scale. Add an asterisk (*) if noticeable improvement has been made since the beginning of his/her graduate education.

		LEVEL OF ACHIEVEMENT				
Score		1	2	3	4	5
	1. Student has core knowledge in Plant and/or Soil Sciences	<ul style="list-style-type: none"> Student is unaware of core knowledge. 	Exhibits most characteristics of "1" and some characteristics of "3".	<ul style="list-style-type: none"> Student has understanding of most basic principles. 	Exhibits most characteristics of "3" and some characteristics of "5".	<ul style="list-style-type: none"> Student has solid understanding of relevant information.
	2. Student has background knowledge in the general area of his/her research project.	<ul style="list-style-type: none"> Student is unaware of foundational principles in their area of study. 		<ul style="list-style-type: none"> Student has understanding of the most basic principles of subject. 		<ul style="list-style-type: none"> Student has solid understanding of all relevant background information in the subject.
	3. Student is familiar with most analytical instruments and methods used in his/her area, including the principles on which they are based.	<ul style="list-style-type: none"> Student did not perform analyses and does not know how the data was obtained. 		<ul style="list-style-type: none"> Student can operate instrument and utilize data generated 		<ul style="list-style-type: none"> Student understands principles of the analysis, knows what patterns indicate an error, and can adjust instrument to obtain excellent data.
	4. Student was aware of literature both directly relevant to the work done and from related fields.	<ul style="list-style-type: none"> Totally unaware 		<ul style="list-style-type: none"> Aware of a good range of literature 		<ul style="list-style-type: none"> Aware of literature both directly relevant to the work done and from related fields
	5. Student is able to construct hypotheses well.	<ul style="list-style-type: none"> Strongly disagree. 		<ul style="list-style-type: none"> Neutral. 		<ul style="list-style-type: none"> Strongly agree.
	6. Thesis/dissertation tested hypotheses generated by the candidate from an analysis of previous	<ul style="list-style-type: none"> No hypothesis 		<ul style="list-style-type: none"> Knows the hypothesis. 		<ul style="list-style-type: none"> Candidate generated the hypothesis and mastered the analysis that led to it.

		LEVEL OF ACHIEVEMENT				
Score		1	2	3	4	5
	work, both published and unpublished.					
	7. Experiments reported were designed well to test hypotheses.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	8. Experiments included all necessary positive and negative controls.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	9. Work reported used appropriate field and/or laboratory methods.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	10. Work reflects student's competency in use of computational tools.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	11. Results of experiments were interpreted appropriately.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	12. Results were placed in proper context with other work.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	13. Work contributes to the advancement of the field.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	14. Thoughts were logically organized.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	15. Thoughts were expressed clearly, using appropriate words, correct grammar, etc.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	16. Good use was made of tables and figures.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	17. Appropriate credit given to ideas, quotations, and illustrations from other sources.	<ul style="list-style-type: none"> Strongly disagree 		<ul style="list-style-type: none"> Neutral 		<ul style="list-style-type: none"> Strongly agree
	18. Student understood questions asked of him/her in the defense.	<ul style="list-style-type: none"> Unsatisfactory 		<ul style="list-style-type: none"> Basic competency 		<ul style="list-style-type: none"> Excellent
	19. Student answered defense questions and, to the best of my knowledge, correctly.	<ul style="list-style-type: none"> Unsatisfactory 		<ul style="list-style-type: none"> Basic competency 		<ul style="list-style-type: none"> Excellent

20. FOR THE FOLLOWING DISCIPLINES, PLEASE INDICATE YOUR PERCEPTIONS OF THE STUDENT'S KNOWLEDGE.

SCORE	Most important for this area		Discipline	- or blank	1	2	3	4	5
	Crop Science	Soil Science							
	Some	Some	Agricultural Economics	Cannot judge based on examination	unsatisfactory	minimally acceptable	basic competency	above average	excellent
	Some		Bioinformatics						
	X		Biotechnology						
	X		Botany						
	Some		Crop Ecology						
	X	X	Cropping Systems Management						
	X		Entomology						
	X		Genetics						
	X	Some	IPM						
	X		Molecular Biology						
	X	Some	Plant Biochemistry						
	X		Plant Breeding						
	X		Plant Pathology						
	X	Some	Plant Physiology						
	X	X	Precision Agriculture						
	Some	X	Soil Chemistry						
		X	Soil Genesis/Morphology						
	Some	X	Soil Management						
		X	Soil Microbiology						
	X	X	Soil Nutrient Management						
		X	Soil Physics						
	X	X	Statistics						
	X	Some	Weed Science						