

SWATeam Recommendation

Name of SWATeam: Agriculture, Land Use, Food, and Sequestration

SWATeam Chair: Bruce Branham

Date Submitted to iSEE: 1/31/2016

Specific Actions/Policy Recommended (a few sentences): We recommend hiring a research technician or 50 % Graduate Research Assistant who would be responsible for collecting, analyzing, and compiling the data necessary for estimating current greenhouse gas fluxes of the University’s agricultural land holdings. We recommend that funding be provided for the materials and lab time needed to collect these data. We further recommend that these data be used to explore how different management practices would affect greenhouse gas fluxes on University lands.

Rationale for Recommendation (a few sentences): As indicated in Chapter 7 of the 2015 iCAP (page 55), Objective 1 of the ALUFS SWATeam is to “Perform a comprehensive assessment of GHG emissions from agricultural operations, and develop a plan to reduce them, by the end of FY16.” In order to determine GHG emissions and make informed decisions about measures and policies to reduce them, the ALUFS SWATeam must first have a data on the amount and source of GHG emissions on the University’s agricultural lands. In our current situation the members of this SWATeam are ill-equipped to acquire these data. A research technician with adequate time and funding is necessary to comprehensively assess our emissions and develop strategies to reduce them.

Connection to iCAP Goals (a few sentences): This measure would be invaluable in providing a full picture of our agricultural GHG emissions, which is necessary to accomplish Objectives 1 and 6 of the ALUFS iCAP. Furthermore, reaching carbon neutrality is severely limited by the lack of current understanding and accurate estimates of our agricultural greenhouse gas emissions.

Perceived Challenges (a few sentences): We identified several challenges to meeting the ALUFS iCAP objectives. A major challenge with respect to estimating baseline emissions is the variable and distributed nature of the University’s land management practices. Multiple, independent groups control the University’s agricultural lands, and each group appears to manage their lands differently and according to the changing research needs of the group. Records of current and past management practices have not been compiled and are difficult to locate. As a result, baseline practices and associated emissions are poorly known. With respect to measuring GHG fluxes, data would need to be collected during the growing season, which means the technician would need to be present during the summer.

Suggested unit/department to address implementation: Crop Science, Animal Science, and Natural Resources and Environmental Science

Anticipated level of budget and/or policy impact (low, medium, high): Medium

Individual comments are required from each SWATeam member (can be brief, if member fully agrees):

Team Member Name	Team Member’s Comments
Joseph Edwards	There is very little data available with which to construct a model of our GHG emissions, having someone to collect this data would be really useful in making decisions on how to change our practices
Brent Lewis	Most other objectives are being taken care of, this is still the biggest area of “unknown” for us, would be useful in figuring out how tenants use the land
Jennifer Fraterrigo	Ecosystem models could be used to determine how changes in land management would affect GHG emissions. However, baseline data regarding current carbon stocks and fluxes and land management practices are needed before we can proceed to this step.

	Any output from models would be unreliable without “good inputs”.
Maggie Thomas	Need this before we can get to work on those issues
Bruce Branham	Getting good data on farm emissions has been a problem even going back to the original iCAP document. Getting good baseline data is essential to crafting policies and recommendations for changing land management practices.
Thurman Etchison	The information this person would collect is vital in creating a “roadmap” for change and providing accurate data on the results

Comments from Consultation Group (if any; these can be anonymous):

Explanation and Background (can be supplied in an attachment):