

# SWATeam Recommendation

SWATeam: ALUFS      Chair: Reid Christianson      Date Submitted to iSEE:

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Specific Actions/Policy Recommended (a few sentences): A committee of ACES faculty, farm personnel, and iSEE members will develop a comprehensive and cooperative management plan for all non-research agricultural land on the UIUC South farms that promotes sustainable practices and implements current best management practices. The plan should account for crop rotations, soil management, nutrient application, and pest management. This strategy must consider the needs and wishes of the departments that rely on the productivity of this land for financial return. The plan should offer detailed recommendations, costs of implementation, and estimated reductions in greenhouse gas emissions from adopted practices. The committee should include faculty with expertise in biogeochemistry as well as staff responsible for agricultural production.

Rationale for Recommendation (a few sentences): The agricultural production on the South farms contribute to the campus' carbon footprint, yet are not well accounted for or monitored. Establishing a consistent plan to manage agricultural land on the South farms should help reduce greenhouse gas emissions coming from these fields, while simultaneously helping to monitor annual emissions. The previous iCAP estimates of agricultural emissions only accounted for the number of head of cattle held, which represents just a portion of our agricultural GHG emissions. Thus, we need additional information on management practices to calculate a more accurate baseline for GHG emissions. This plan would also help ensure that all stakeholders are playing a role in improving the sustainability of our cumulative agricultural operations. This in turn, supports the greater mission of educating our students as we model the best land use practices available.

Connection to iCAP Goals (a few sentences): In the iCAP chapter 7, objective 1 states: “Perform a comprehensive assessment of GHG emissions from agricultural operations, and develop a plan to reduce them, by the end of FY16.” The practices in place on the South farms are highly variable, making it difficult and cost-prohibitive to comprehensively measure the emissions from different practices. Using a carbon calculator is much more efficient, but requires accurate information about various operations. Developing and implementing a management plan will improve the accuracy and scope of our agricultural GHG emissions estimates. This plan will also provide a unilateral way to implement sustainability practices to reduce GHG emissions

Perceived Challenges (a few sentences): There are two main challenges: (1) ensuring that all stakeholders come to an agreement as to what practices should be undertaken; and (2) ensuring that the proposed practices enhance sustainability without compromising the research mission or revenue generation for the departments. One way to alleviate challenge 1 would be to get farm operators together before planting or after growing season (November/December).

Suggested unit/department to address implementation: College of ACES, primarily Crop Sciences and Animal Sciences, as well as other stakeholders within the South farms (NRES, Agricultural and Biological Engineering, etc)

Anticipated level of budget and/or policy impact (low, medium, high): Budget: Low - Initial budget of developing this plan is minimal. Policy: Medium/High – Developing a comprehensive plan for all departments to agree upon and follow could prove difficult given the different needs and usages of these lands.

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

Team Member Name	Team Member's Comments
Reid Christianson	As the state's premier land-grant university, we have a wonderful opportunity to show our students and farmers in our state that we are responsible stewards. We can do this through noting profitability while including long-term conservation efforts to protect and enhance our soil, water, and air resources.
Bruce Branham	Our agricultural lands represent an opportunity to implement the best management practices that we would recommend to Illinois Farmers. We should also make a commitment to push beyond the normal BMPs and try to implement more impactful management practices that can make the farms sinks for greenhouse gases.
Joe Edwards	Plans like these are not unusual for large agricultural institutions and could help our land managers implement the sustainability practices our research champions.
Thurman Etchison	I believe that creating a plan and documenting the processes being used is critical to reducing our emissions. It is also very important that Illinois sets a great example as a leader in agriculture education and research.
Brent Lewis	As a research institution we should be a model and a driver for proper land usage.
Adriana Noboa	Not only is it in the best interest of the UIUC campus to implement the sustainable practices it recommends, the GHG baseline is necessary in order to quantify our progress towards the iCAP goals.

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

Jennifer Fratterigo (former SWATeam member who provided feedback on this proposal): "Developing and implementing a management plan for the South farms is critical for determining and mitigating greenhouse gas emissions. Additionally, I anticipate that it would encourage adoption of more sustainable practices."