

**GRA Croplands Research Group Meeting**  
**9-10 December 2020 (virtual)**  
**CLIFF-GRADS Presentations**

**Questions for host** (Michel Cavigelli, USDA-ARS, Beltsville, MD, USA)

Please see uploaded video by Dr. Cavigelli.

**Questions for student** (Lucélia de C. R. de Brito, Federal University of Piauí, Brazil)

- What motivated you to apply to the CLIFF-GRADS Initiative?  
I highlight two points that motivated me to enroll in the program:
  - I- The great visibility that the participant in the beginning of a scientific career can achieve, mediated by the opportunities that the program offers.
  - II- And the opportunity to assimilate new knowledge in the area of mitigation of greenhouse gases in agriculture.
- What is the objective of your project under the CLIFF-GRADS Initiative?  
The project's objective is to measure N<sub>2</sub>O in organic grain production systems.
- What new knowledge/skills have you developed as a result of involvement in the initiative?  
Many skills/knowledge have been improved and / or initiated through CLIFF, such as:
  - Methodology for collecting greenhouse gases;
  - Input Greenhouse gas samples into the gas analyzer (chromatograph)
  - Analysis of emission data with two, three and four collection points;
  - The use of Bootstrapping methodology and exponential interpolation in the analysis and representation of N<sub>2</sub>O data;
  - Improvement of knowledge in the use of excel for the construction of charts and spreadsheets; planning and execution of a scientific experiment;
  - Manufacture of gas collecting chambers;
  - Scientific article writing;
  - Statistical analysis in experiment with subdivided portion.

Although I mentioned the intellectual gains linked to the professional field, I need to mention, even if only briefly, that there were many personal and cultural gains in participating in the program.

- What broader positive impacts have come about from being a CLIFF-GRADS student?  
It was positively impacting to know other realities and styles of work execution. This helped to expand and raise my professional references to a much higher level. Having the opportunity to work with a research team that CLIFF-GRADS has provided me with inspires and motivates me every time I feel discouraged.

In a broader and more personal way, I can say that when you participate in a program the size of CLIFF-GRADS, the world view is transformed. For me there was a transformation in the way of seeing, feeling and feeling what is happening around me and in the world. I can say that I attribute to the program a greater development of a sense of global responsibility for the maintenance of Environmental quality on the planet. Thanks to the diffusion of experiences provided by CLIFF-GRADS, I have future plans for the development of strengthening actions aimed at the preservation of natural resources in the quilombola agricultural communities of my city.

- What suggestions would you make to other students interested in applying to the CLIFF-GRADS Initiative?

A suggestion for those interested in participating in the program is to seek better improvement in English and Spanish so that you can make the most of all the contact networks and opportunities that the program offers.