

Corey Douglas, Biological Science Aid

Hello. My name is Corey Douglas. I am currently attending Delta State University pursuing a degree in Environmental Science. I have been working at the USDA-ARS experiment station for almost three and a half years. Through my tenure at the Stoneville location I have learned a tremendous amount on the ecology of insects. I have also made close friendships with the people I work with and I have enjoyed my time here.

I currently work under Dr. Clint Allen who has been with the USDA for two and a half years. Dr. Allen has made a point for me to grasp exactly what our research means. I try to ask questions when I see things I may not know for instance, when we are in the field and I see an insect I don't know, I ask Dr. Allen. He really looks out for his employees. Not only do I conduct research under Dr. Allen but, I also participate in carrying out different tests for Dr. Snodgrass and Dr. Jackson. The scientists collaborate together in different tests and so our crew works together.

Throughout the past couple of years I helped conduct research dealing with boll worms, plant bugs and loopers. I run test both inside in the lab and outside in the fields. Before, I came to work for the SIMRU I did not really have knowledge of the different crops insects. But, after the knowledg I have gained I could say for myself that I am an entomologist in the making.

One of the main concepts that I have learned this summer is that things can change in matters of a year. Last summer we conducted looper sampling at various locations scattered all over the delta and other areas of Mississippi and Arkansas. We have three main species of looper consisting of *Pseudoplusia includens*, soybean looper, *Trichoplusia ni*, cabbage looper and the *Rachiplusia ou*, mint looper. Since last summer our looper population has diminished drastically. During the summer of 2010 we recorded densities of loopers, collected samples and reared

collected larvae to adult to determine looper species. As well in 2011 we have done the same surveys of the looper insects. This summer we came into a new idea of planting cabbage as a crop to draw in cabbage loopers. Our numbers weren't great but we were able to collect enough to start a colony and are rearing them in the lab. Something that I have learned is that when sampling in the field it is very hard to distinguish between the three species with the naked eye. The best way that we have been able to clarify is by letting them turn into pupae and then the moth stage to determine which looper species. So far our looper numbers are down this year compared to last summer but, slowly the numbers are beginning to climb. Along with the sampling, we have placed traps specifically to attract both cabbage and soybean loopers. Our numbers are way down this year compared to last summer. The thought behind this is the fact that maybe since we are using different traps this year, the loopers aren't attracted to the traps as well as the traps from last summer.

I was given three short articles to read for this paper. What I found in the articles which they all date back to earlier times in entomology, is that we the entomologists are still seeing the same results and observations of the looper species. The cabbage and soybean loopers are the dominant of the three species that we are focusing on. Mississippi, Alabama, Arkansas, Louisiana and Georgia all have seen what harm the loopers can evoke on the crop plants. We still today have to use the same methods in determining what species we find in the fields. Our best method of determining is by rearing the larvae into moths to then specify exactly what we have found in the field.

I can honestly say that having the privilege to work at the USDA with the SIMRU group has really brought a better knowledge of how the insect world works. Coming from working in weed science to working with bugs, I didn't really know what I was getting into. But after learning the

things I have learned has really opened my eyes to the agricultural world. I hope I have helped the American farmers and growers in controlling the insect population to better their crops and our economics.