


Abstract

I am writing to request a \$792.80 travel to present grant from the Graduate Student Government (GSG) to help with the cost of attending the 25th International Congress of Entomology (ICE) from September 25-30 in Orlando, FL. Held every four years, ICE brings together entomologists from around the globe to share their work and connect with other researchers. I will be giving a presentation at the meeting based on my M.S. thesis research. Attending ICE will be an excellent opportunity for me to share my research and network with an international community of researchers.

The goal of my thesis work is to improve pest management in potato. Potato is one of the most widely grown crops in the world, and is the most economically important crop in the state of Maine. However, potato crops are threatened by a variety of pests and pathogens which can cause drastic yield losses when not managed properly. My research focuses on two of the most destructive pests of potato in Maine: Colorado potato beetle and aphids. Colorado potato beetles feed on potato leaves and can destroy potato fields if not properly controlled. However, they are notoriously hard to manage due to their tendency to rapidly develop resistance to conventional insecticides, which form the basis of most management programs in potato. Aphids are another major group of potato pests, mainly due to their ability to transmit plant viruses. Simply killing aphids in the field often does not sufficiently control virus spread in potatoes. Thus, better understanding of pest management practices is needed to control these pests.

The research which I will be presenting at ICE concerns the effects of mineral oil on Colorado potato beetle and aphids. Mineral oil is an organic insecticide which is thought to have a reduced impact on beneficial insects compared with conventional chemicals. Mineral oil has been used in potato to control Potato Virus Y, affecting the transmission of the virus itself.



However, its effects on insect pests in potato are not well understood. Besides acting as an insecticide, mineral oil has been shown to have behavioral effects on some pest species which reduce their severity as pests. However, these effects have not been studied at all in Colorado potato beetle, and have been studied little in aphids. To test these effects, I have been performing several laboratory experiments on Colorado potato beetles and two species of aphids. These experiments are aimed to show how effectively mineral oil kills pests, hinders their development, or reduces their ability to feed on potato. Preliminary results have shown that mineral oil deters feeding by Colorado potato beetle, and appears to have repellent effects on aphids as well. The results of this study could benefit to potato growers in Maine and elsewhere, as well as the researchers who help them. This study could open up new research possibilities, which may eventually result in improved pest management for potato growers.

Attending and presenting at ICE will be an excellent professional development experience for me. I will be able to share my work with an international audience, gaining presentation experience, receiving invaluable feedback, and potentially providing new research ideas and opportunities. My presentation is also entered into the student competition, allowing for the opportunity for additional recognition for my project. Finally, attending ICE will allow me to meet and network with students and professionals in my field from all over the world and learn about their research. I greatly appreciate you taking the time to consider my application. Any award amount will assist my ability to attend the conference.

Itemized Budget

No.	Item	Source	Quantity	Individual Cost	Total Cost	Amount Requested
1	Registration		1	\$50.00	\$50.00	\$50.00
2	Airfare	JetBlue (PWM-MCO)	1	\$394.00	\$394.00	\$0.00
		United (PWM-MCO)		\$396.70	\$396.70	
		Delta (BGR-MCO)		\$451.20	\$451.20	
3	Meals	Per Diem	6 days	\$36.80	\$220.80	\$220.80
4	Lodging	Extended Stay America	6 nights	\$87.00	\$522.00	\$522.00
		La Quinta Inn & Suites		\$95.00	\$570.00	
		Hampton Inn		\$104.00	\$624.00	
				Total	\$1,186.80	\$792.80



Budget Explanation

Registration

The registration fee for the conference is unavoidable. However, at \$50.00, the cost of attendance is relatively low. Given the scope of the meeting, this is a very reasonable price.

Airfare

Given the distance from Maine to Orlando, air transportation is the only feasible option. I searched Expedia.com and Travelocity.com for the best prices on flights from Bangor and Portland. My department will be able to pay for airfare, so I am not requesting it as part of this grant.

Food

I am requesting lunch and dinner for each of the six days of the conference. Breakfast is not included in the request because each of the hotels I am considering provides free breakfast. I calculated the meal budget based on University of Maine's standard per diem rate of \$46.00/day and subtracting the 20% (\$9.20/day) allotted for breakfast.

Lodging

I searched Expedia.com and Hotels.com for the best available hotel rates. In addition to having the cheapest nightly rates, the selected hotels are within easy walking distance of the conference site, eliminating the need to pay for transportation between the hotel and conference site. Because each site includes breakfast, these hotels also reduce the food cost.