

Dear members of the search committee,

My name is Austin N Fife, and I believe that my experience with Entomology/Acarology, the chemical ecology of plant defenses, and plant-arthropod-pathogen interactions makes me a suitable candidate as a Research Associate at the KREC.

The majority of my research has focused on studying how vectors of plant pathogens interact with their host plants, natural enemies, and plant defenses (induced systemic acquired resistance, SAR). My PhD research was based on the early detection, chemical ecology and biocontrol of *Phyllocoptes fructiphilus* and *Brevipalpus californicus*. These two mite species are vectors of economically important plant pathogens, and I was the first to detect and report on these pathosystems in northern Florida. I utilized chemical ecology methods to evaluate predator attraction to plant headspace volatiles, and the effects of inducing SAR on mite populations, providing preliminary data to improve predatory efficiency and/or develop chemical lures. I also evaluated the fecundity and behavior of *Bactericera cockerelli* on potato, testing for putative host plant resistance (putative antibiosis, antixenosis). During the past six years, I created/maintained multiple insect and mite colonies, and grew hundreds of plants from an eclectic variety of plant families, including many species of wild and cultivated Solanaceae. I enjoy statistical programming and modelling in R, especially with the Tidyverse packages and Rmarkdown + Git.

I take a multidisciplinary approach to problem-solving, accordingly, I have collaborated as frequently as possible to learn from others. I have benefited from the combined expertise of over 15 principal investigators from regional universities, as well as state and governmental agencies. Furthermore, working at Research and Education Centers over the last six years has helped me to understand the needs of different organizations: I have spoken at 4-H and local rosarian clubs, presented to stakeholders, published technical reports, organized and led educational activities, set up information booths and participated in various other STEM events to share our research with local communities. I also speak, read, and write Spanish fluently, due to living independently in Mexico for a few years, and I enjoy interacting with diverse communities.

I have written extension articles, journal articles, proposals, and received a few small grants as described in my CV. I speak consistently at annual professional meetings by various scientific organizations, in person and online, including oral and poster sessions. I am first author on three publications in peer-reviewed journals, and I expect to finish 2-3 more publications in the near future.

My career goals lie in the areas of sustainable plant protection of invasive species and pathogens, accordingly, I intend to work for research and extension in university, state or federal agencies which promote science-based best management practices for understanding pest outbreaks.

In conclusion, I am confident that my experience with chemical ecology, plant defenses, and arthropod-plant-pathosystems makes me a strong candidate for your organization.

Thank you for your time and consideration,

– Austin Nathaniel Fife