Summary

To further characterize the population dynamics of the grass-feeding spittlebug complex in Bothriochloa pertusa pastures on the Caribbean Coast of Colombia. the phenology of Aeneolamia reducta (Lallemand) was described. Data were obtained from intensive surveys of nymphs and adults designed to quantify on-farm, regional, and annual variation in certain components of population ecology, including population synchrony, number and timing of generations, and correspondence with precipitation. Population development was assessed by evaluating the progression of the different nymph and adult life stages and through analysis of cumulative insect-days. Aeneolamia reducta completed up to six generations per year with a life cycle of 41.6 days, highly prolific given the extended dry season and relative to other species in pastures. First generation nymphs peaked in abundance 3-4 weeks after start of the rainy season and the nature of those rains influenced population synchrony. Little on-farm variation in timing of the first outbreak was detected. For each discrete generation, adults arrived 7.7 days after nymphs and adult males 1.0 days after females (protandry). Local movement was an important factor in population dynamics because spittlebug-free areas of the farm were colonized by adults from focal outbreaks. Relative to other ecoregions of Colombia, this site highly seasonal in precipitation experiences a greater number of generations and higher population synchrony. Based on this new understanding of spittlebug population fluctuation and phenology, management strategies in highly seasonal sites such as the Caribbean Coast of Colombia should emphasize temporal and spatial prediction of the first generation and thereby target control tactics that suppress population development before these outbreaks contribute to subsequent generations or invasion of previously uninfested areas.