

Daniel Cade Daugherty

Senior Division Plant Sciences

The Role Of Insects As A Biological Control Of Locoweed Phase II

Based on the information that a locoweed weevil (*Cleonidius trivittatus*) was capable of causing mortality on Purple Locoweed (*Astragalus mollisimus*) this study was designed to determine if locally collected grubs from Purple Locoweed would survive on a diet of only White Locoweed (*Oxytropis sericea*). Obtained prepared diets from New Mexico State University. There were twenty-eight diet cups that consisted of a diet made up entirely of (*Oxytropis sericea*). There were Locoweed grubs collected from infested Locoweed plants located near Capulin, New Mexico. Each cup of diet then had two grubs placed into them. Observations were recorded daily: survival, maturity, and mortality rates were recorded daily in each cup. There were fifty-six Locoweed grubs tested. All were placed into one type of diet. The diet being a local Locoweed (*Oxytropis sericea*). All fifty-six grubs died in this experiment. One-hundred percent mortality rate was recorded. The Hypothesis was not supported as the experiment had a one-hundred percent mortality rate. The actual reason that all of the grubs died is not known. There are many variables that may have caused the death rate; however, it is unknown what reason is the actual cause.