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The Efficacy of Zenivex E20[®] in Mosquito Control

About the Author

Jason Kinley, M.S., is the executive director of the Gem County Mosquito Abatement District, where he has served as director since 2005. Jason completed B.S. degrees in Entomology and Botany and his M.S. in Entomology at Iowa State University. He has been involved in mosquito control for 12 years.

Background

The Gem County Mosquito Abatement District (GCMAD) is located in Emmett, Idaho, and is the oldest operating mosquito control district in the state. The district provides service to approximately 130 square miles of residential, recreational, agricultural and river drainage areas, and is composed of an intricate web of irrigation canals, ditches and waterways.

The GCMAD took part in an evaluation of Zenivex E20[®], a recently developed adult mosquito control product from Central Life Sciences that utilizes etofenprox as its active ingredient. The goal of the efficacy trial was to evaluate the product's control of native mosquito species in a high elevation desert environment.

Trial Results

The district evaluated control of *Ochlerotatus nigromaculis*, commonly referred to as the irrigated pasture mosquito, using Zenivex E20[®]. Greater than eighty percent efficacy was obtained after 12 hours as long as product was deposited in the area (Figure 1). At 100 feet from the application, the droplet density was only 19 drops per cm². This resulted in relatively low efficacy and clearly indicates that weather and environmental factors resulted in missing the intended target. At 200 feet from the application, weather and environmental factors again resulted in missing the target with the droplet cloud as intended. The droplet density was 62 drops per cm², and resulted in approximately 65% efficacy. At 300 feet, the droplet density was 133 drops per cm², and efficacy was greater than 80%.

Conclusions

The GCMAD realizes that all tools, old and new, serve an integral role in the war against mosquitoes. Zenivex E20[®] is a new arrow in the quiver. There are several reasons the GCMAD is interested in utilizing Zenivex E20[®]. It has exhibited control across a range of application rates and is effective on many mosquito species with a quick and permanent knockdown. Zenivex E20[®] has a low toxicity profile and is classified as a reduced risk insecticide by the E.P.A. This is important to the GCMAD when considering the district's environmentally conscious constituency. Another appealing attribute of Zenivex E20[®] is that it does not require aquatic setbacks, an important consideration given the district's composition. In general, the GCMAD will attempt to integrate Zenivex E20[®] into its mosquito control arsenal and will be pleased to inform district citizens that the control products are used with environmentally conscious consideration.

This article is not an endorsement of Zenivex E20[®] by the Gem County Mosquito Abatement District and only serves as a testimony to the product's efficacy.

