1. **Introduction.** Over the past two decades, ecologists have focused intensively on chemically mediated plant-herbivore interactions [5, 10, 13, 18], and suggested that plant toxins play an important role in regulating herbivore’s consumption of the plant [11, 12, 17, 18, 19]. Specific examples and more detailed discussions about the importance of plant toxins as determinants of herbivore functional response can be found in [16]. Although the impact of toxins on herbivores’ diet has been emphasized in a great deal of research, it is frequently ignored in plant-herbivore models (e.g., [1, 8, 9, 15]). In [6], we constructed a toxin-determined functional response model (referred to as TDRFM) that explicitly incorporates the effect of...