# EFFICACY REVIEW

DATE: IN 10/2/97 OUT 10/6/97

REVIEWER: **KEVIN J. SWEENEY, ENTOMOLOGIST**
FILE OR REG. NO.: **13283-EG**

PETITION OR EXP. PERMIT NO.:

DATE DIV. RECEIVED: **9/3/97**

DATE OF SUBMISSION: **8/25/97**

DATE SUBMISSION ACCEPTED

TYPE PRODUCT(S): **I,** D, H, F, N, R, S

DATA ACCESSION NO(S). **S531093, DP239561**
PRODUCT MGR. NO.: **13**

PRODUCT NAME(S): **RAINBOW DM FIRE ANT KILLER**

COMPANY NAME: **Rainbow Technology Corporation**

SUBMISSION PURPOSE: **Reregistration - 165**
**Efficacy Data for Fire Ant Labeling**

CHEMICAL & FORMULATION: **Deltamethrin 0.25%**

CONCLUSIONS & RECOMMENDATIONS

**Study Title: Product Performance Data of Rainbow DM Fire Ant Killer**
The efficacy data submitted for the product "Rainbow DM Fire Ant Killer is not acceptable because the application rates stated on the label were not tested in the study. The label states two application rates: 4 ozs./square foot and 0.96 ozs./square foot (96 ozs./100 square feet). The study tested a soil treatment of one 4 oz. bag applied to a circler area with a diameter of two-feet or a circle with a radius of two-feet. It's not clear from reading the methods what size area was treated. The methods section states "in a two feet(two-foot) diameter from the center." If the diameter is two-feet, this is equivalent to 4 ozs./3.14 square feet or 1.27 ozs./square foot. If the diameter is four-feet, it is equivalent to 4 ozs./12.5 square feet or 0.32 ozs./square foot. In either case, the application rate tested is not the same as those stated on the

label. Why are there two application rates on the label? Why is one four times greater than the other for the same site and pest? You need to resolve these issues. Submit a study which tests the application rate(s) on the label. The alternative is to change the label application rate to the one tested in the study. If you do submit a new study, please use a population index to evaluate the fire ant populations. Data represented in this fashion conform with most efficacy studies done on this pest. One published index can be found in an article published by Lofgren & Williams (1982) in the Journal of Economic Entomology 75:798-803. Others indices also exist.