# HAWAII DEPARTMENT OF AGRICULTURE PLANT INDUSTRY DIVISION

December 11, 2002

#### Citric Acid Anhydrous

# Label for use of Citric Acid Anhydrous for Control of Caribbean Tree Frogs \*

Active Ingredient:

Citric Acid Anhydrous, 99.85 %

Inert Ingredient:

Water, 0.15 %

\*Citric Acid Anhydrous is available from different companies. These directions for use apply to Citric Acid Anhydrous that can be used as an ingredient in food products, e.g., Citric Acid Anhydrous, Technical, BP, USP, FCC Grade

### Safety Precautions:

Citric acid anhydrous is a highly irritating and corrosive chemical. Follow safety precautions on the product label to avoid eye, skin and respiratory irritation. Follow product label directions in the event of a spill of the product.

#### Toxicity to Plants:

Citric acid anhydrous powder and solutions of citric acid in water can be toxic to plants. Do no apply to plants of value. Do not apply powder directly to plants. Evaluate the toxicity of citric acid solution on test plants before treating plants for the control of coqui and greenhouse frogs.

## <u>Directions for Use</u>:

Citric acid in water solution is toxic to the coqui (<u>Eleutherodactylus coqui</u>) and greenhouse (<u>E. planirostris</u>) frogs. Tests and field trials conducted by state and federal agencies in Hawaii indicate a 16% solution of citric acid in water (1.28 lbs citric acid anhydrous in 1 gallon of water) will kill both species of tree frogs shortly after initial contact.

To avoid damage to plants, wash down treated area with fresh water, preferably within an hour after citric acid application.

For questions regarding the use of citric acid for frog control, contact the Hawaii Department of Agriculture at 808-974-4141 (Hilo), 808-973-9538 (Oahu), 808-873-3555 (Maui) or 808-274-3069 (Kauai).