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Comparison of hydrated lime and citric acid and return to soil neutrality. Our project compares how quickly soil returns to neutral (pH 7.0) following the application of the two pesticides that are most commonly used in Hawai'i to kill coqui frogs. These pesticides must come directly in contact with the frogs in order to kill them. There is no eradication value in persistence of these pesticides in the soil or water. Since extremely acidic (low pH) or alkaline (high pH) pH soil levels can damage or even kill organisms, we wanted to see which pesticide treatment returned to neutrality first. We sprayed 25 ml of citric acid (pH0) at the recommended dose (25 ml citric acid with 25 ml water) and sprinkled 25g of hydrated lime (pH14) (dry application recommended) respectively onto Kaua'i soil samples and then flushed them with water. We also field tested soil and soil runoff in Lawai Valley, where actual sprayings for coqui extermination are being done. We found that hydrated lime returned to neutrality faster than citric acid. The implication from this finding is that hydrated lime dissipates in the environment faster than citric acid.