# *INTRODUCTION*

In second grade, my family moved to our current house. Before we sold our previous house, my dad decided to rejuvenate our lawn. He added a chemical to the lawn area, and soon the lawn grew rapidly and more green. As a second grader, this seemed odd, but I never figured it was from the chemical. After we moved, we went from a tiny backyard, to a huge area behind our house. My dad began to landscape our house, and decided he wanted to plant several trees, shrubs, and other plants. We added a big lawn area in the front and back of our house. Several times, he asked my uncle, a typical Italian who knows everything about gardening, to come help him with the growth of the plants. My uncle generally knew what he was doing, and soon our backyard was like a forest, rain forest, and fruit orchard all in one.

A few years ago, heavy rains began to fall. All the plants in our yards suffered greatly. Our fruit trees never bloomed, our pine trees developed a bacterium that killed them all, and our lawns began to brown. My dad became very concerned, and telephoned my uncle. My uncle suggested using fertilizer on the lawn. My dad, the following Friday, decided to ask our gardeners to add fertilizer to the lawn. The gardeners suggested against it, warning it was only a quick fix. The real problem was our family clayed soil. Despite their warnings, my dad decided to have them fertilize the lawn. The gardeners used sulfate of ammonium, and soon our lawn began flourishing. It was bright green, and grew at a faster rate. The newly rejuvenated lawn lasted for about a month and a half, then returned to its’ previous state. My dad decided to fertilize again, and the thought “Too much good stuff?” went through my mind. At the start of the year, when we were able to begin choosing our projects, I wanted to research how the chemicals helped the lawns to improve, and also, to investigate whether or not too much fertilizer would be detrimental to the plant.

## FERTILIZER

Fertilizers are commonly used to help plants grow. Farmers, gardeners, and other agricultural workers use fertilizers. They help to distribute more nutrients to the plant, and help promote stronger roots, darker green color to leafy plants (such