

15.1

Where optimization can be used in real life is a plant growth example where you want to optimize certain parameters to get the best plant growth. You want to optimize parameters such as water level, moisture level in soil, or moisture level in air and optimize these so plant growth is at max. Sunlight exposure is also another parameter. Too much of any of these could also be detrimental to plant growth so constraints are important for these variables.

Type of data I would need is plant growth under different conditions of moisture level in soil, amount of soil, amount of water, and sun exposure. See the growth under these varying conditions with constraints in place and see where plant growth is maxed. Constraints could be no more than 10 hours of sunlight a day cause anything more than that can be detrimental to the plant growth. Another could be no more than 1 liter of water a day for the plant. Too much water can be harmful for plant growth also.