COSC 495

Project outline (Rough Draft)

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COSC 495 Group Project

How well does each country use its land in food production? The answer to this question is important for both farmers and policy makers who need to make important decisions. As discussed in Dr. Zhang’s work if nitrogen pollution (which is a big issue not often discussed) is to be addressed, we need to understand how each country uses its land and how that use may be improved in the future. How would one country benefit from relying on trade with another country for a specific crop’s production, would the global nitrogen pollution increase or decrease if a certain country starts planting more of a certain crop, or how can a country’s land be used more efficiently? Our project will attempt to answer some of these questions and others pertaining to this issue by visualizing each of the provided countries land use for each of the given crops and their corresponding nitrogen use efficiency (NUE). In our outline each country is plotted using its land used in farming for each crop (measured in hectares) graphed against its yield (measured in kg/km) with NUE (measured as a percentage) corresponding to the size of the bubbles. Each crop can be viewed with its NUE for each country, the amount grown, and the amount of land used in the process.