**ORIE 4741 Project Proposal**

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## Objectives and Questions

The project is for the 2017 INFORMS OR & Analytics Student Team Competition. The purpose is to collaborate with Sygenta, an agrochemical company, helping in determining which soybean varieties to commercialize as well as ensuring Syngenta products performance to customer's expectations.

The challenge is to predict the potential sales volume of each variety tested in final year of the class of 2014, and further identity the individuals from the 2014 class to be commercialized.

## Dataset

The data from the experiments associated with the classes of 2011, 2012, and 2013 as well as data from the experiments where experimental varieties from the same families were tested. Apart from this, the sales volume data will also be provided.

Our data is collected from:
http://connect.informs.org/oratc/2017problem

## Values and Expectations

Through our project, we hope to explore some insights about the characteristics of elite soybean and provide reliable recommendations to Sygenta about which varieties to commercialize. This is essential to the company because it will help them better meet customers' expectations, utilize resources more efficiently and therefore enhance profits.

Overall, we will use the big messy data methods and techniques to address this problem and eventually propose the solution and recommendations.