AI for the Ag Industry (General Talking Points)

1. AI will need lots of data.
    a. Lots of diverse data sets, the more outliers and opposite ends of the spectrum in the data that is used, the better average result will be achieved.
    b. Garbage in/garbage out theory, bad data in, only results in bad data out.
    c. For anyone looking to utilize data for any decisions, a good minimum would be 5 years of data, with diverse data.
    d. Excel data is great, and CSV formats are also great.
2. Siloed data VS combined data and what that means
    1. Machine learning models for predictions can be made with just a specific growers' data, but the end result would be better if as many grower's data that can be added as possible to create the diverse data set.
    2. This could come with challenges to trust with data, and how is your data handled.
3. Trust with data and trusting THE data
    1. What data are growers willing to trust with 3rd party organizations? If the goal is to take a sales forecast and get that translated into a planting schedule, that will
    2. Open market predictions will be a lot more internal costs involved to make predictive models.
4. Internal resources vs external companies
    1. Do growers start hiring Data analysists? Those are expensive roles, that don't necessarily understand agriculture.
5. What is the value of the data you are looking for and what are you willing to pay to get it?

AI for the Ag Industry (Yield Predictions)

1. AI for yield predictions will need lots of diverse data.
    a. Think of every variable that goes into yield of a crop and understand that you will need (at a minimum) 5 years of data for every variable.
        a. Varieties, geography, soil types, weather, planting practices, irrigation, inputs, weeds, pests, disease, market conditions, sales orders, harvest crews, food safety, etc
        b. All of the above is a dial that can impact yield for good or bad.
        c. How will you know if a yield prediction model is good or bad?
        d. All of the variables for the yield predictions can now become dials to tune the optimal yield output.
        e. Yield vs costs. By including the costs of the variables listed above, a grower could start to find the optimal yield prediction, in parallel with an optimal operational cost model. This would be an “optimal profit model”.

AI for the Ag Industry (Data Analytics and Integration)

1. The types of data entered and how that data is physically captured will be very important and the data will need to be diverse.
    a. Produce a standard data collection method or protocols, with quantifiable data.
        - Example; at this time, post wet date, the size of the crop is measured and recorded.
    b. Land data, GIS surveys and block by block identifications, with crop(s) data
    c. Stand counts, average plant size and stress.
    d. Input applications measured and recorded.
    e. Integrated operational costs, tractors, fuel, labor hours, etc.