

# Crop Yields in CAST

7/14/2023

# Why do we need Crop Yields?

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Fertilizer applications are influenced by the expected yield

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Average yields drive long term loads

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Annual yields help with the Dynamic Model

Recap [June](#) Meeting: Crop Yields

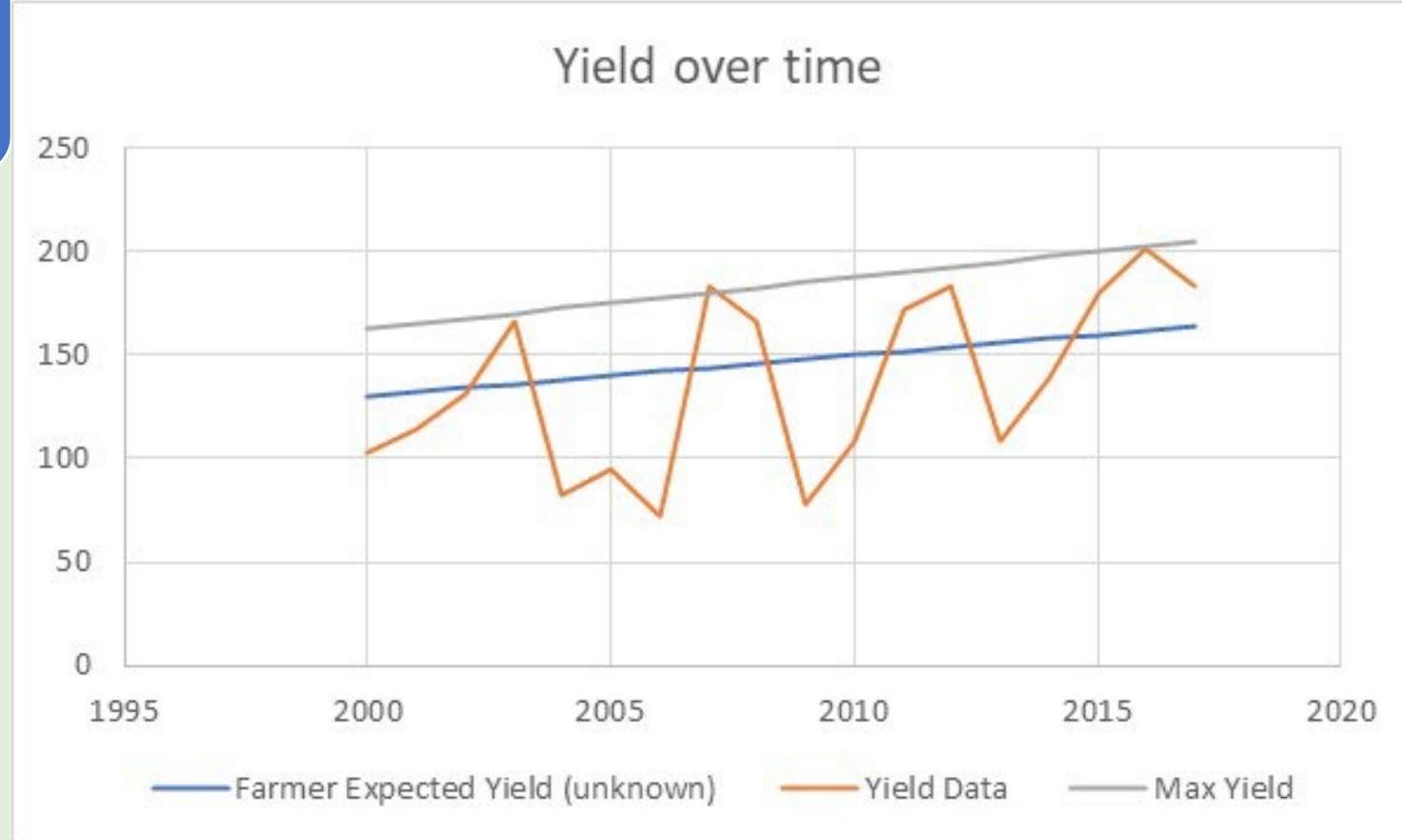
## What we do now:

- Combine multiple data sets to get unique values for every crop in every county

# Recap June Meeting: Crop Yields

## What we want:

- Long-term average behavior
- Average weather patterns (e.g. drought, good years)
- Expected Yields



## Recap June Meeting: Crop Yields

### How can we get there: Group suggestions

- Ensure we represent the actual yield trend
- Identify how to spatially distribute those trends where we don't have information

Progress:

Potential options:

A) Spatial  
interpolation

B) Statistical  
model

# Things to think about as we get started:

How does max yield relate to expected yield?

What is the relationship between these two?

- Roughly 80% expected vs the max?

What physical characteristics are the most important in determining potential yields?

Soil maps

Irrigation

Technology/genetics and associated availability

Climate

Define which crops might share similar yield behaviors

Where data is sparse for specific crops are there parallels which can inform us with relationships?

Discuss which crops might be representative of agriculture in the watershed

What matters in choosing crops?

- Area under production?
- Nutrient requirement?

# Summary

We are thinking of several ways to create a comprehensive crop yield data set

We need input to shape this process

- Additional data sources?



Questions?

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