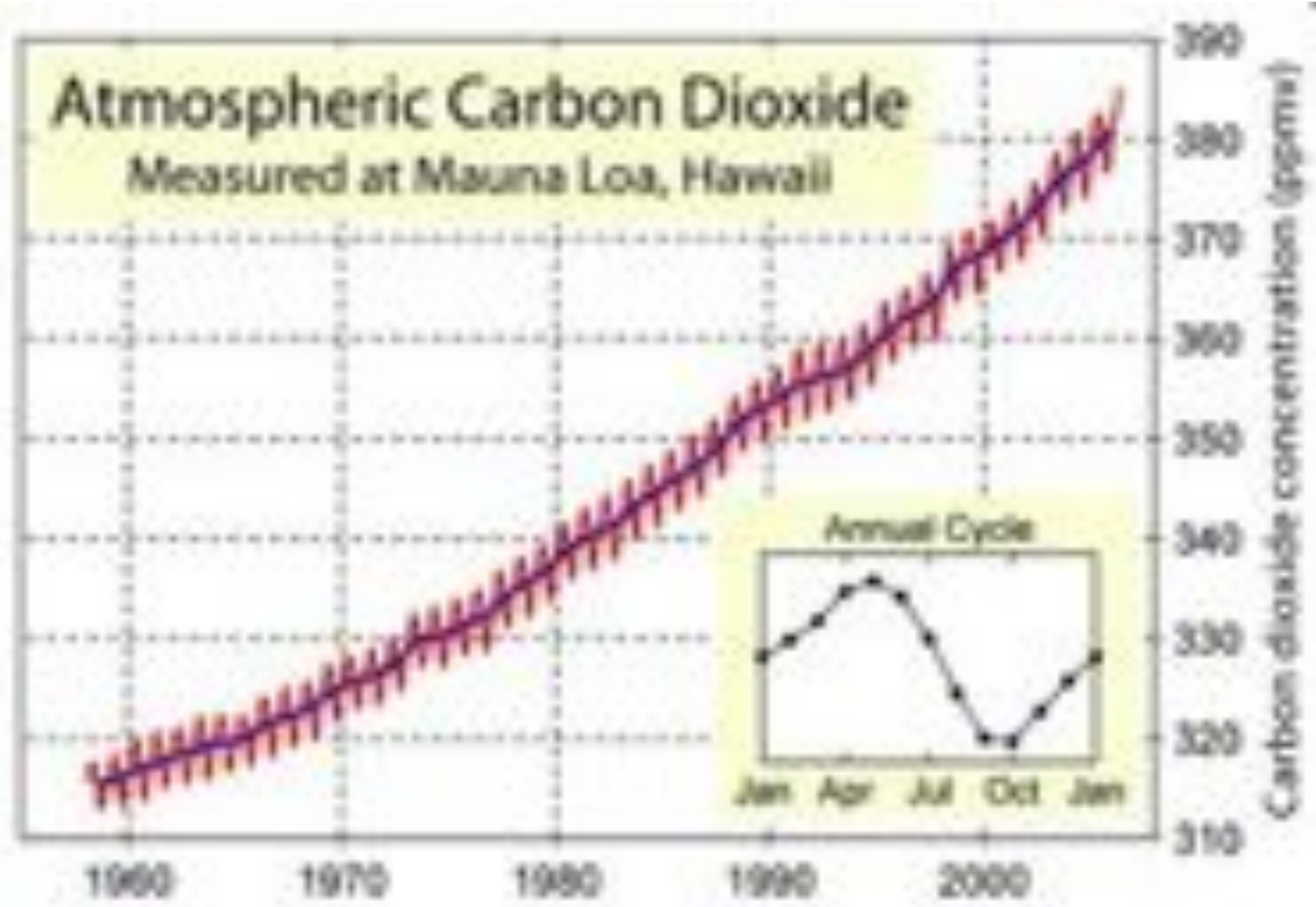




Climate Change

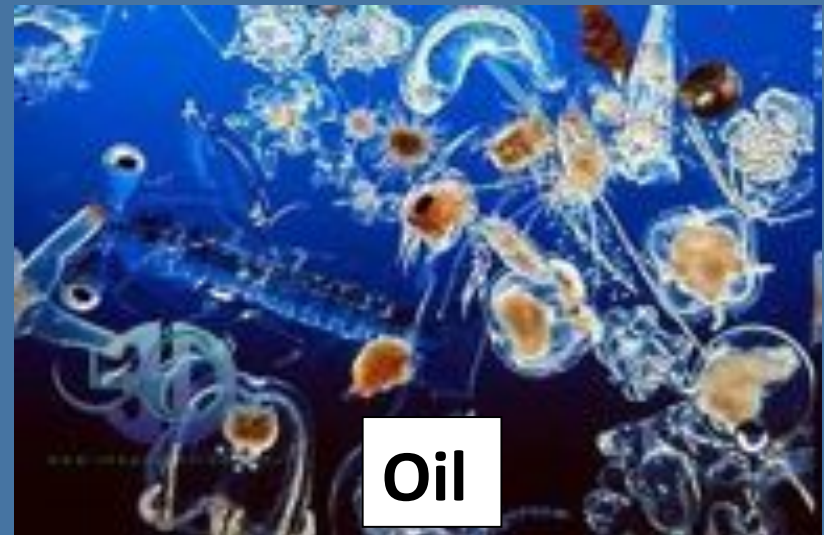


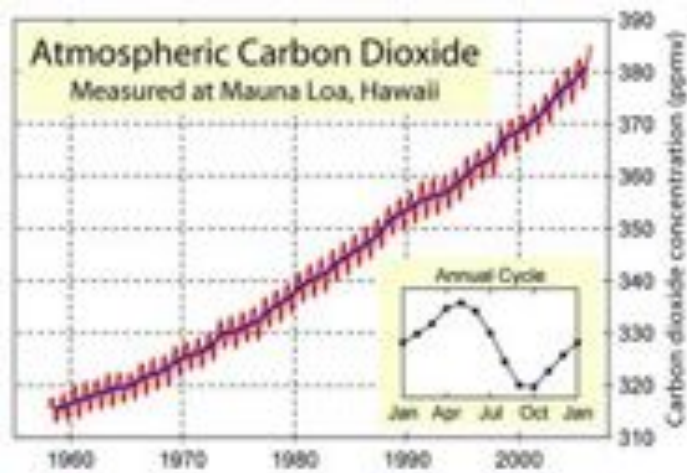
# FOSSIL fuels

Now:

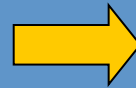


~300 million years ago (before dinosaurs!):





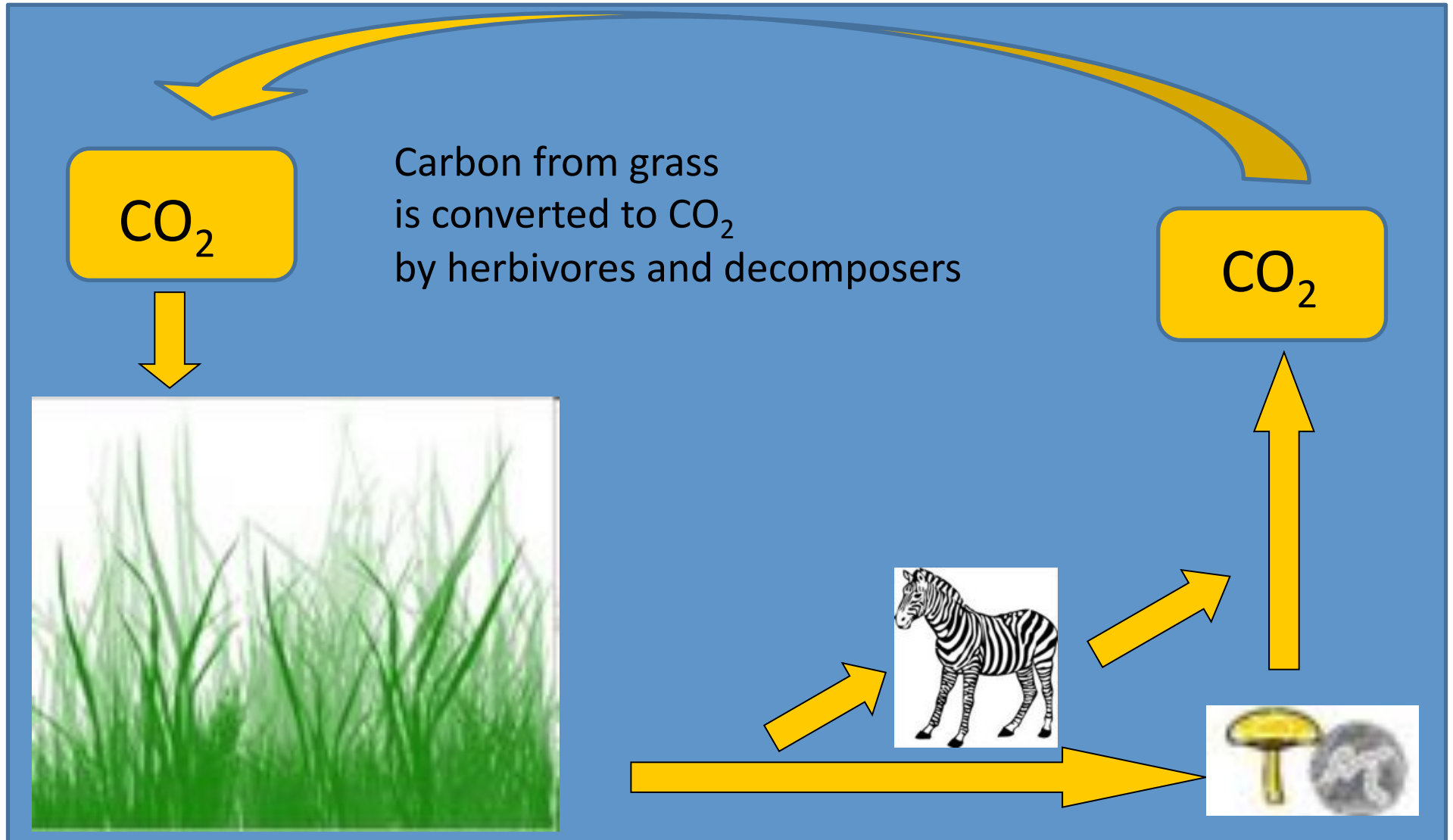
Burning Fossil Fuels puts  
EXTRA carbon dioxide  
into the atmosphere



CO<sub>2</sub>

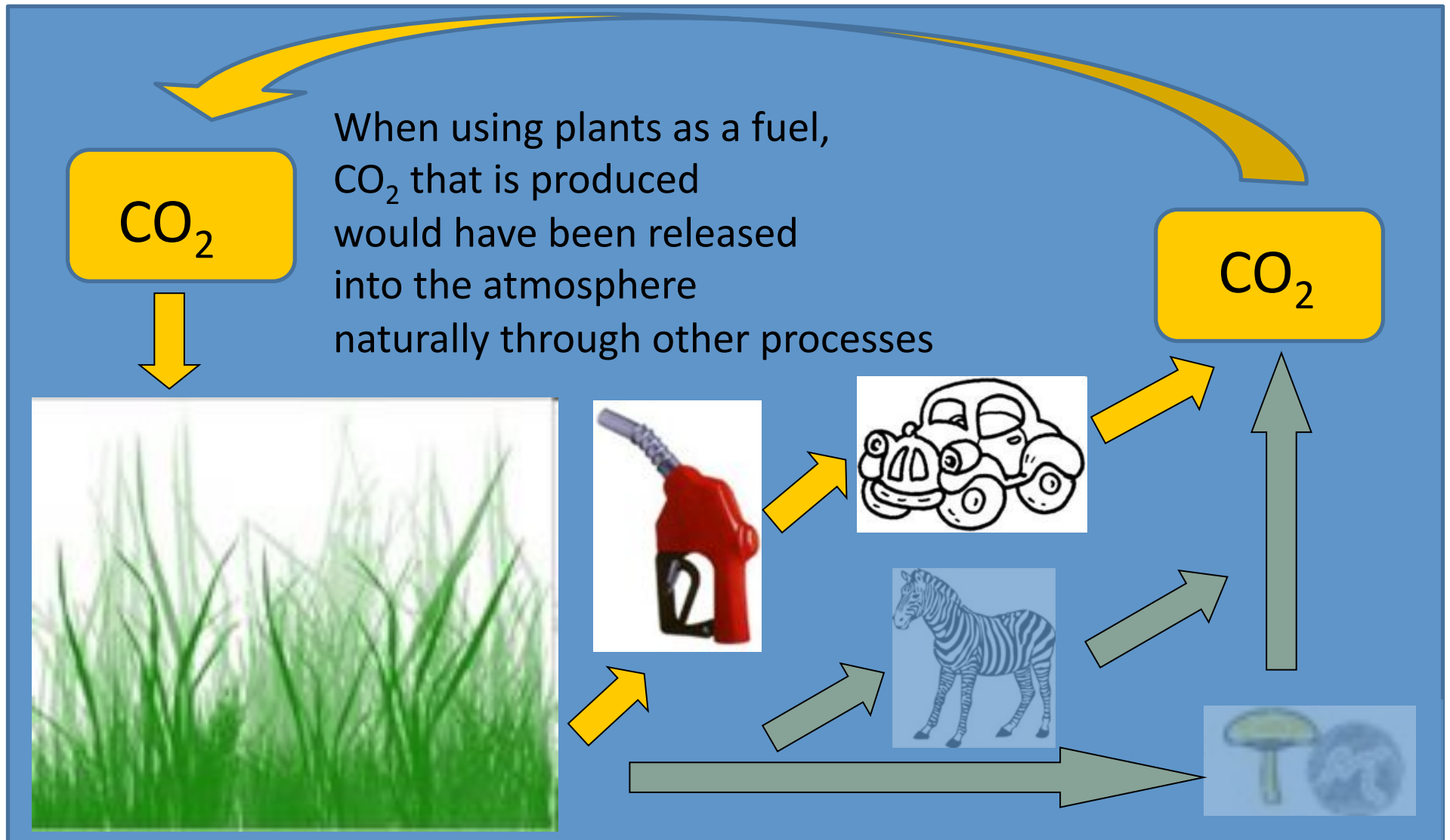


# Carbon dioxide cycles naturally



# Climate Change SOLUTION?

## Using plants as fuel



# BioEnergy SusTainability Experiment


The **BEST** Experiment Question:

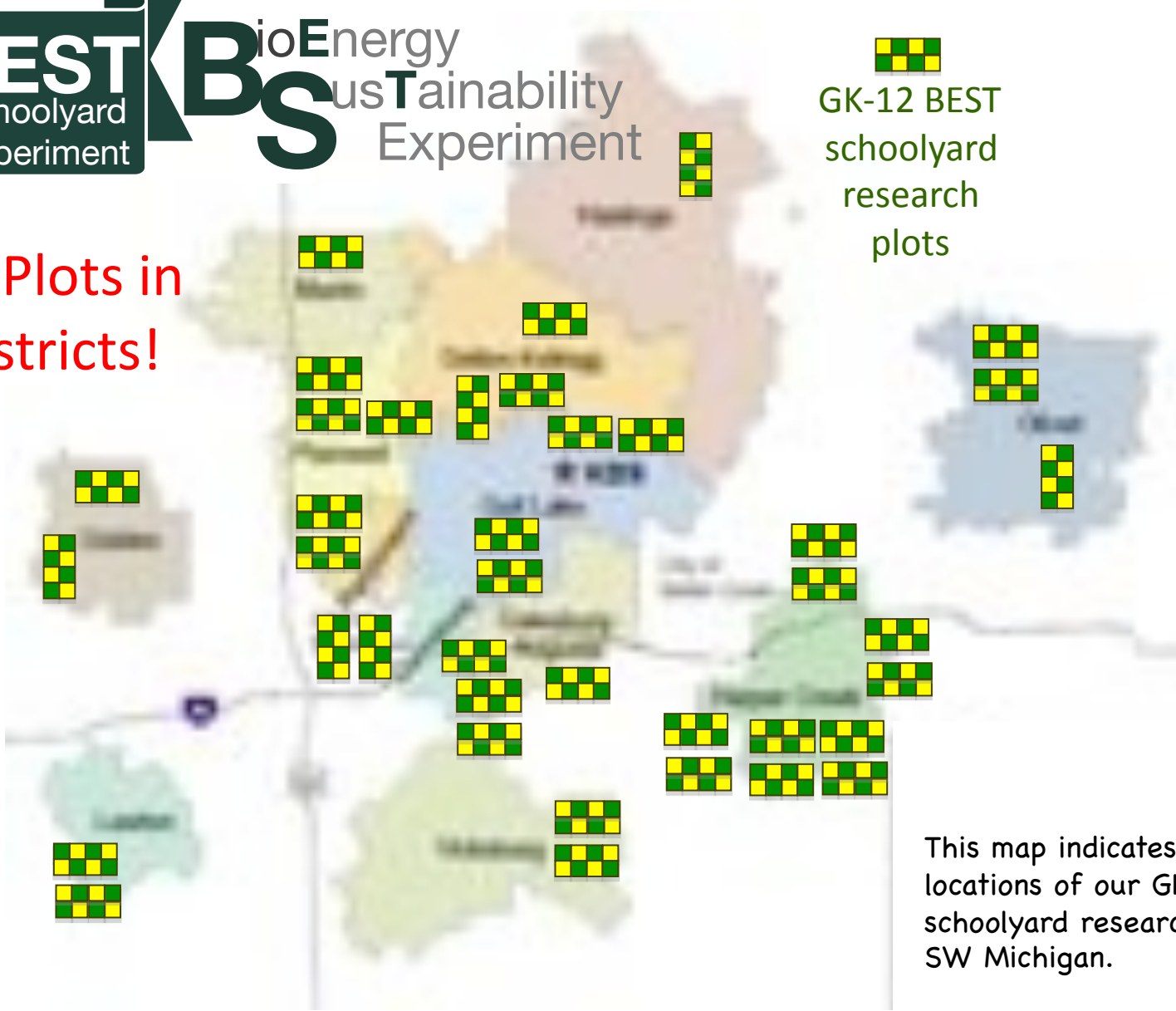
*How can we grow our fuel  
and save our flowers and butterflies, too?*



# BioEnergy Sustainability Experiment

300+ Plots in  
13 Districts!

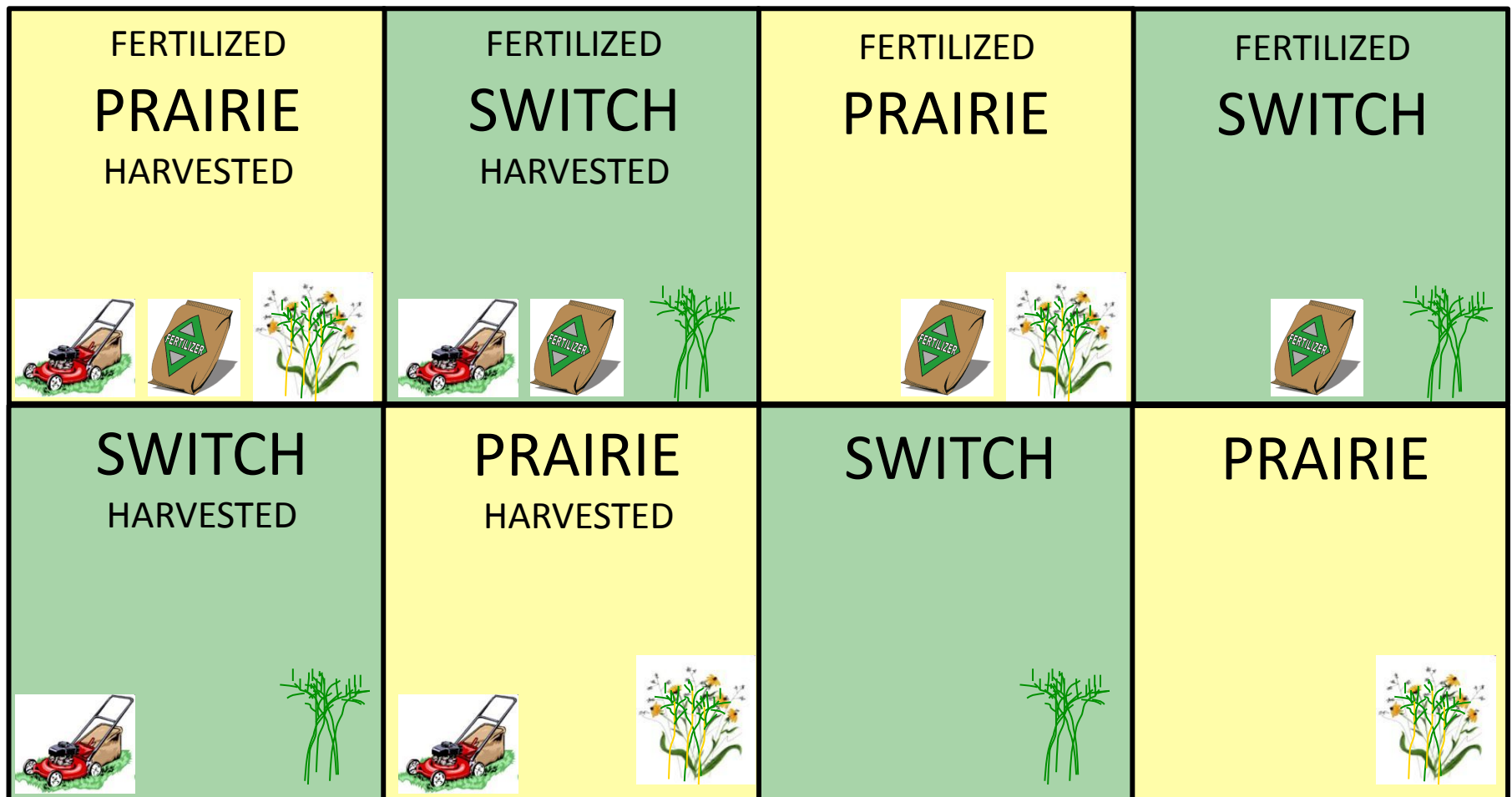
  
GK-12 BEST  
schoolyard  
research  
plots



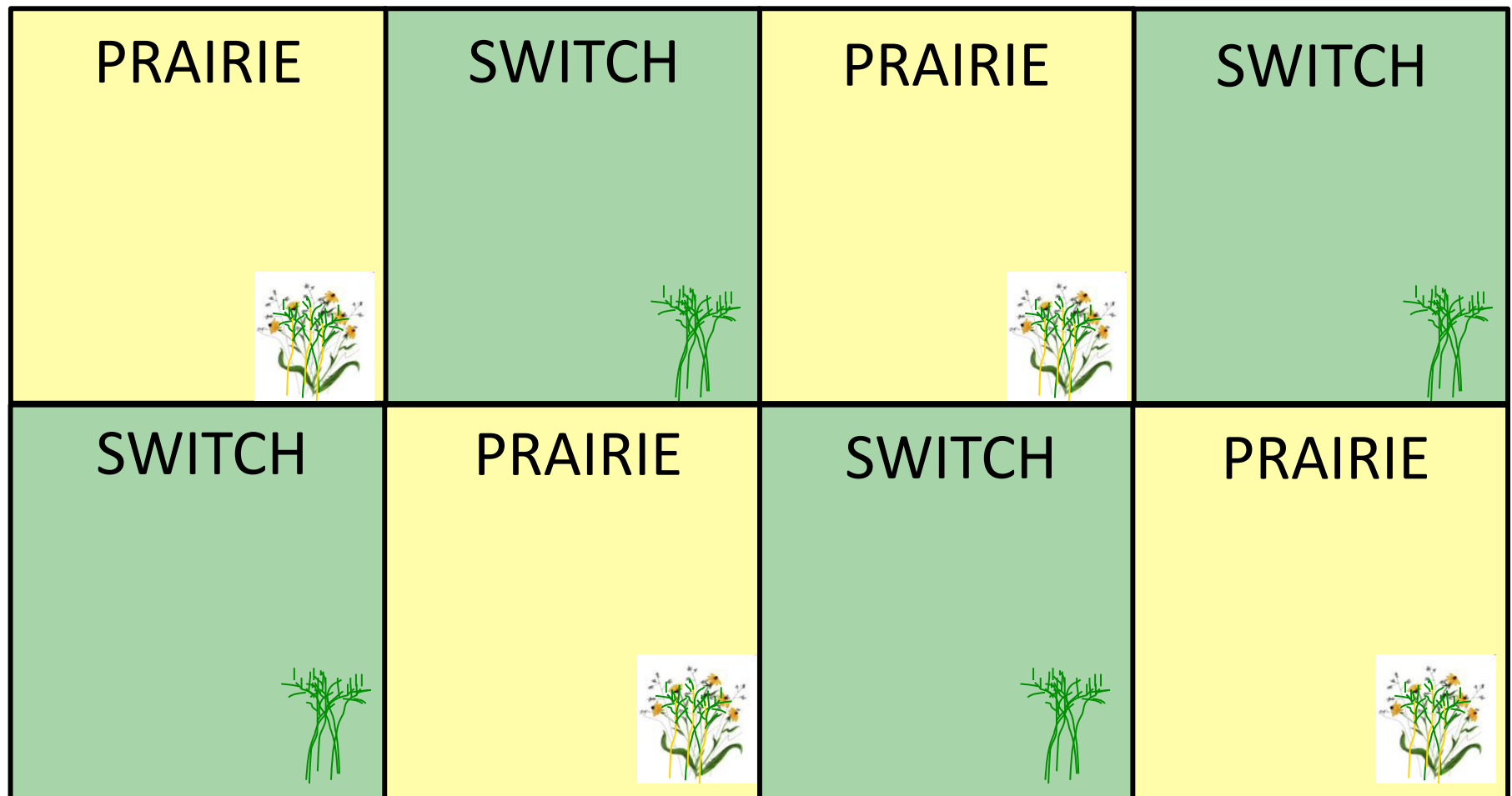
This map indicates the locations of our GK-12 BEST schoolyard research plots in SW Michigan.



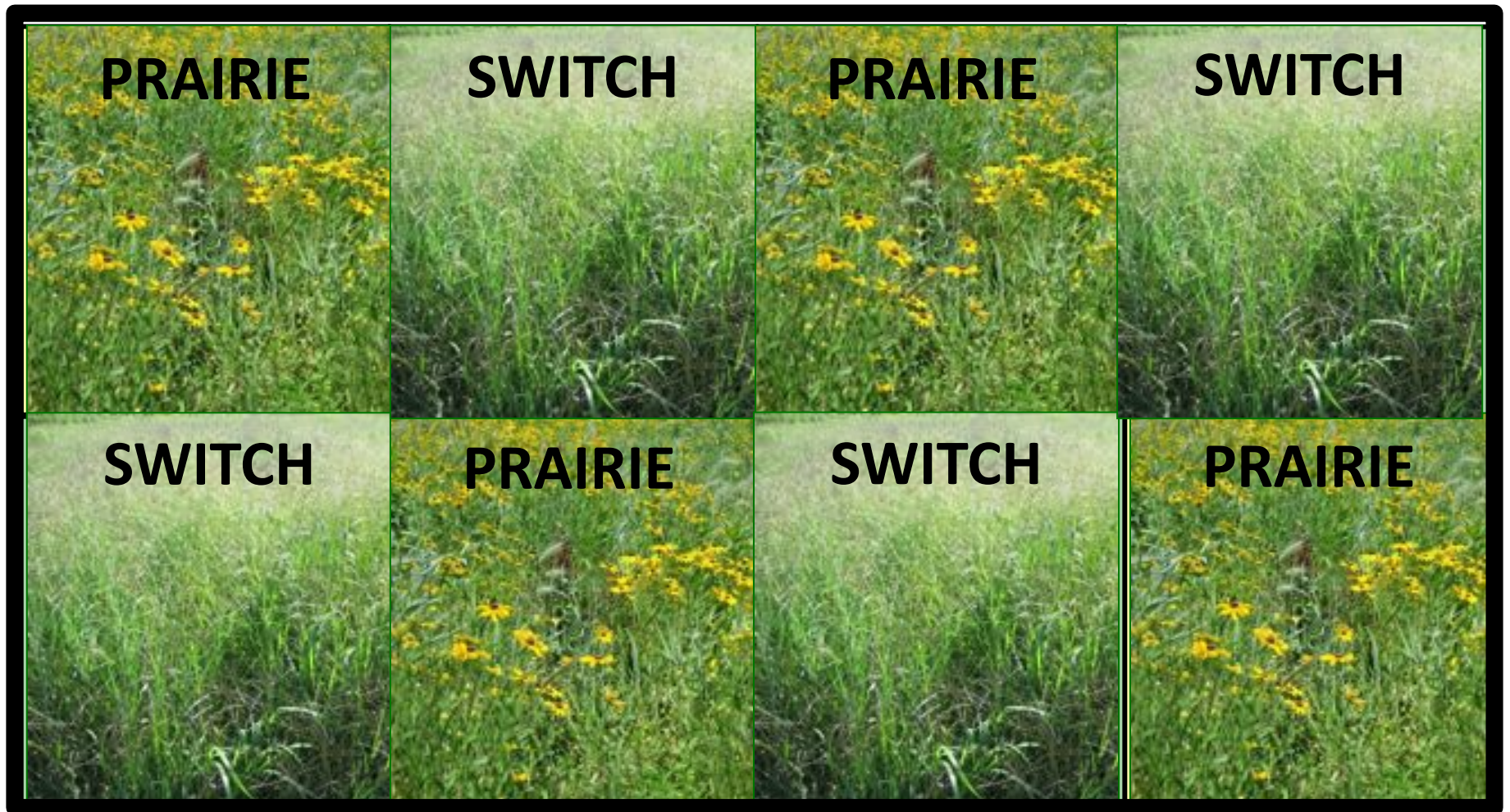
## Block Layout



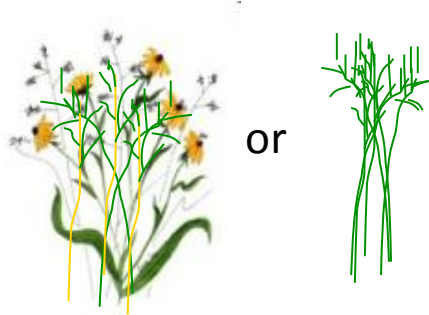
## Block Layout



## Block Layout



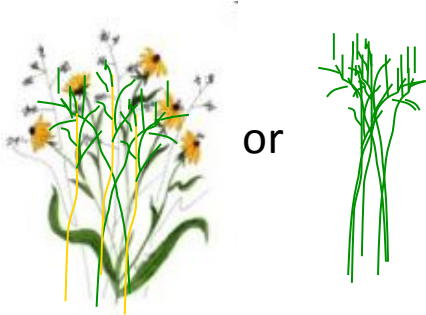
The **BEST** Experiment Question:  
*How can we grow our fuel  
and save our flowers and butterflies, too?*



Which plants make the most fuel?

- lots of species (prairie)
- just one species (switchgrass)

The **BEST** Experiment Question:  
*How can we grow our fuel  
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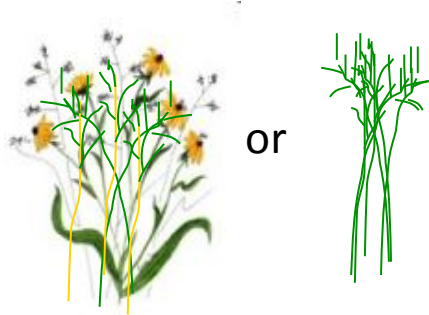
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*More plant growth = more fuel*

# The **BEST** Experiment Question:

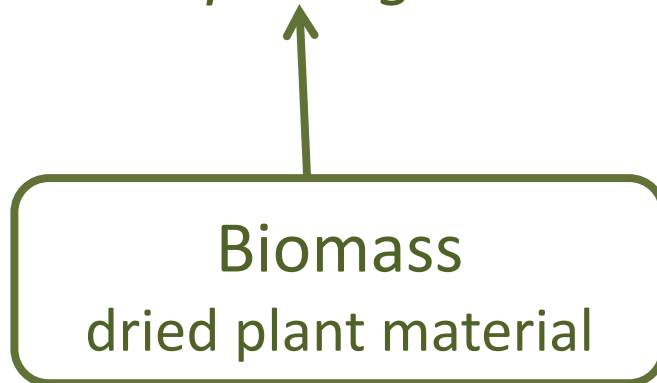
*How can we grow our fuel  
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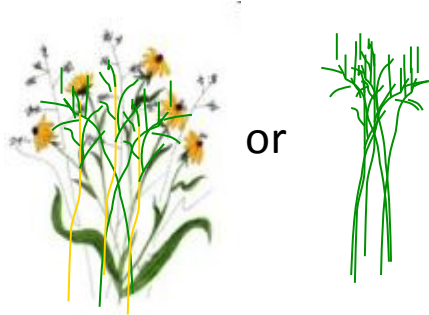
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The **BEST** Experiment Question:  
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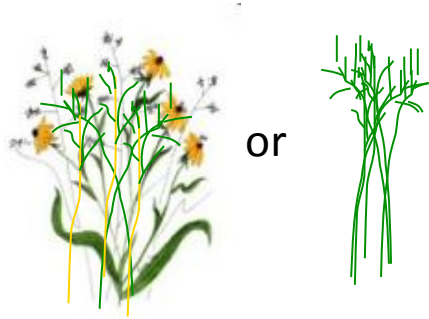
Which plants make the most fuel?

- lots of species (prairie)
- just one species (switchgrass)

**Making predictions**

- Why might prairie make more biomass?
- Why might switchgrass make more biomass?

# Playing a game to make predictions

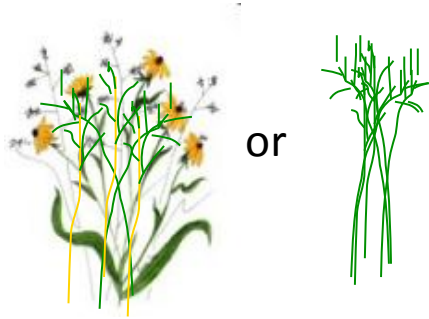


Which plants make the most fuel?

- Plant growth = fuel
- Plants need nutrient to grow
- Plants compete for nutrients



# Playing a game to make predictions



Which plants make the most fuel?

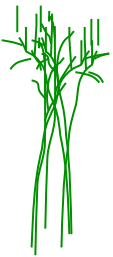
- Plant growth = fuel
- Plants need nutrient to grow
- Plants compete for nutrients

**Each person is a plant trying to get nutrients to grow**



Team Prairie

Each person gets a different tool

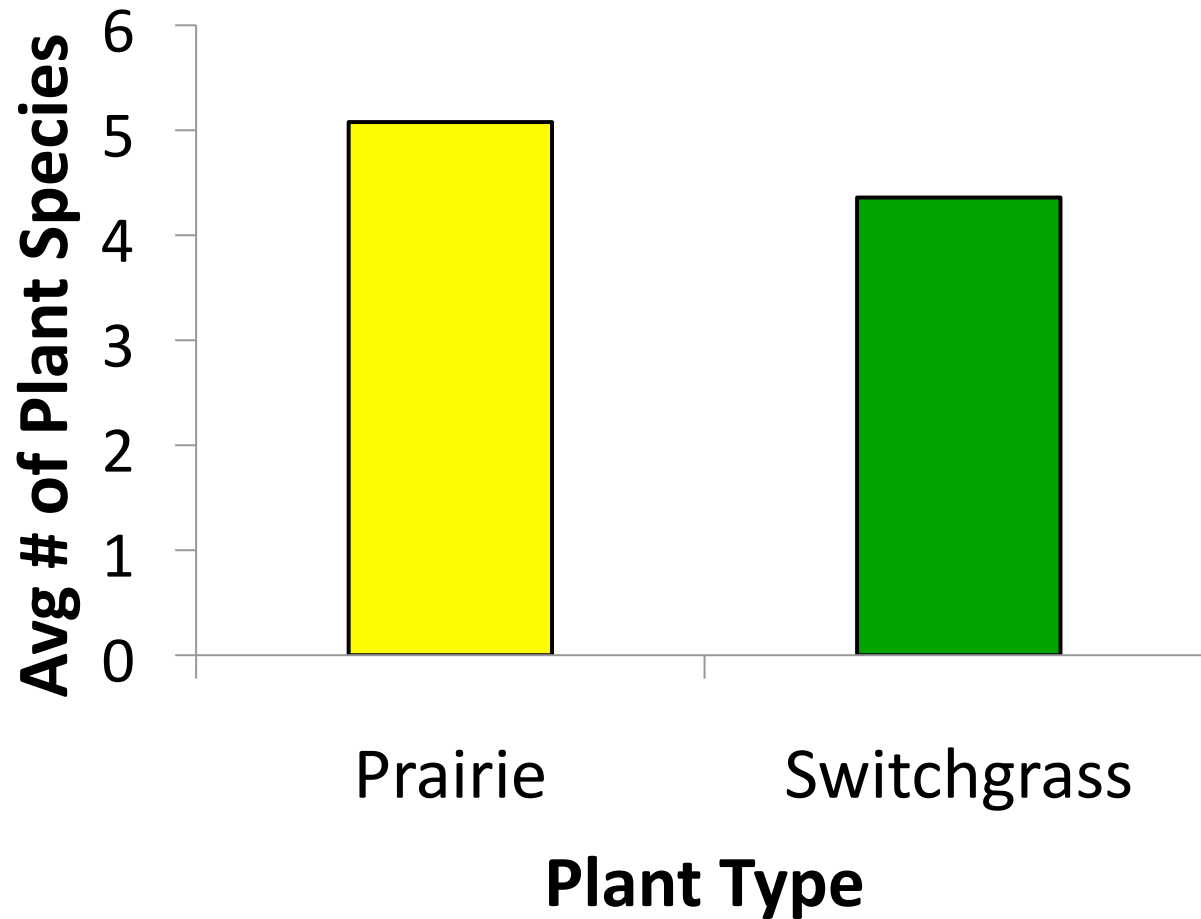


Team Switchgrass

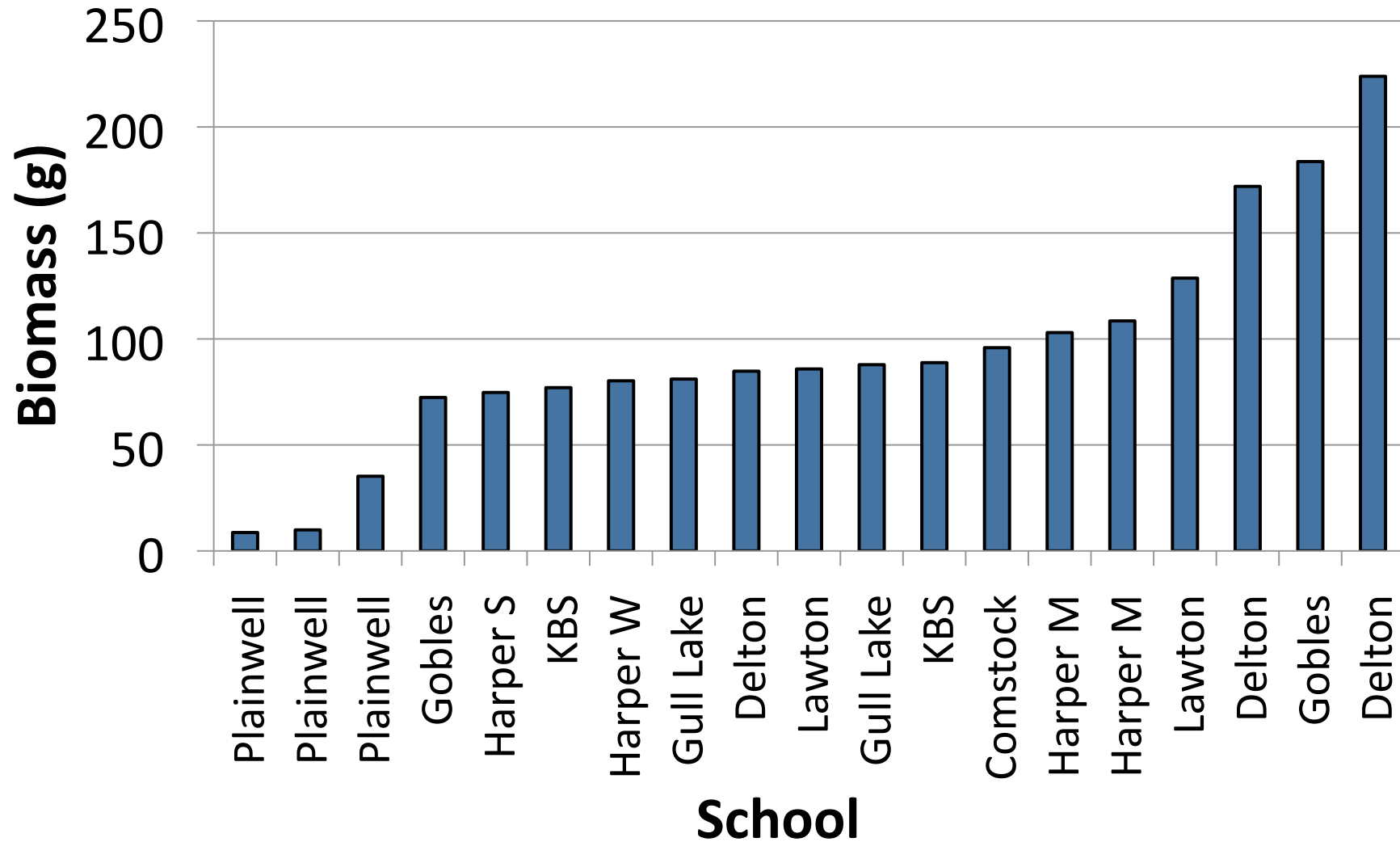
Each person gets the same tool

Graphs that may help us  
think about the results

# Plant biodiversity in switch and prairie



# Biomass varies greatly between schools



# Biomass difference between prairie and switchgrass varies across schools

