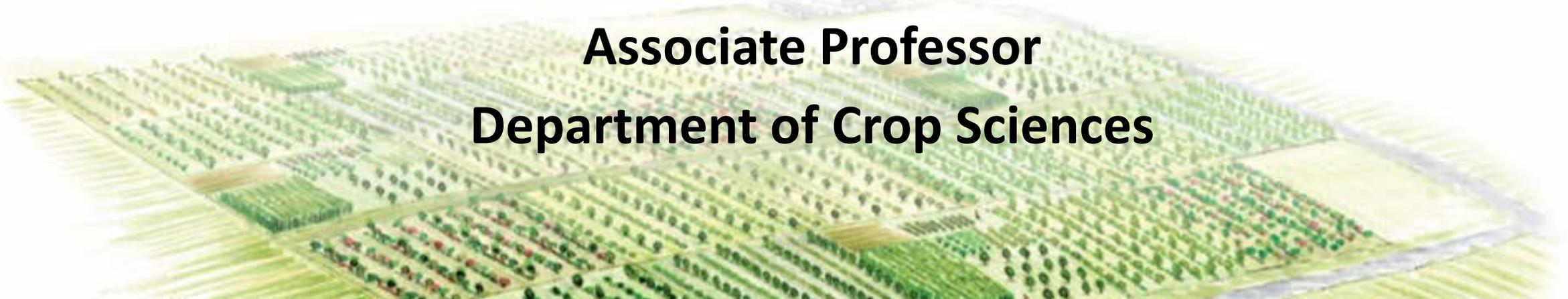


Irrigation to Improve Performance of Agroforestry for Food

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Department of Crop Sciences



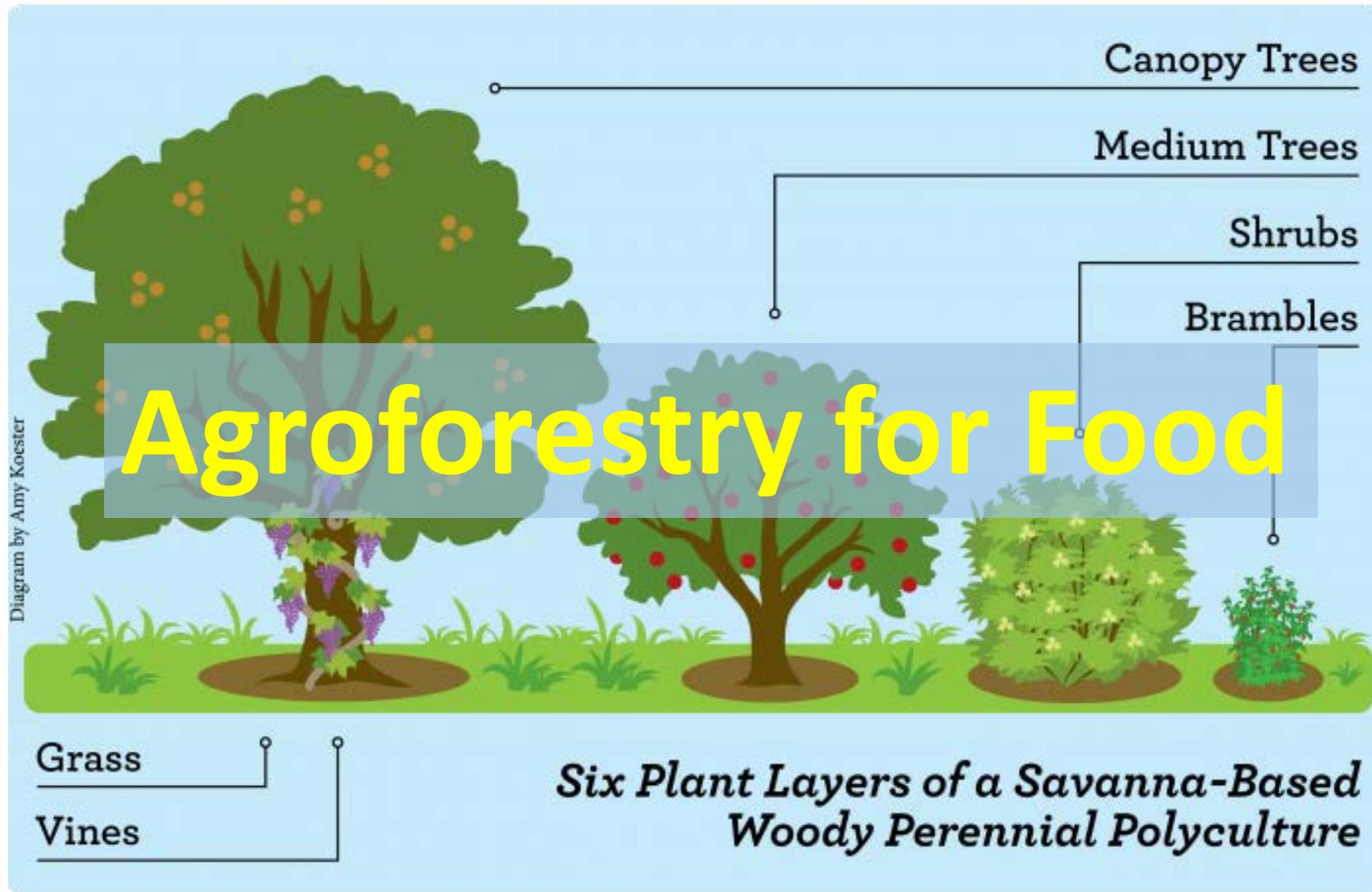
Agroforestry for Food offers an alternative solution for producing food in the Midwest

- Corn and soybeans dominate the Midwest landscape, but result in **unintended consequences** for environmental health
- Large-scale, long-term research trial established to study an **alternative production** system, called “Agroforestry for Food”.
 - Woody plant species that supply fruits and nuts
 - Mimics Midwest oak savanna, with multiple layers
 - Field site was established using funds provided by the Institute for Sustainability, Energy & Environment (iSEE).

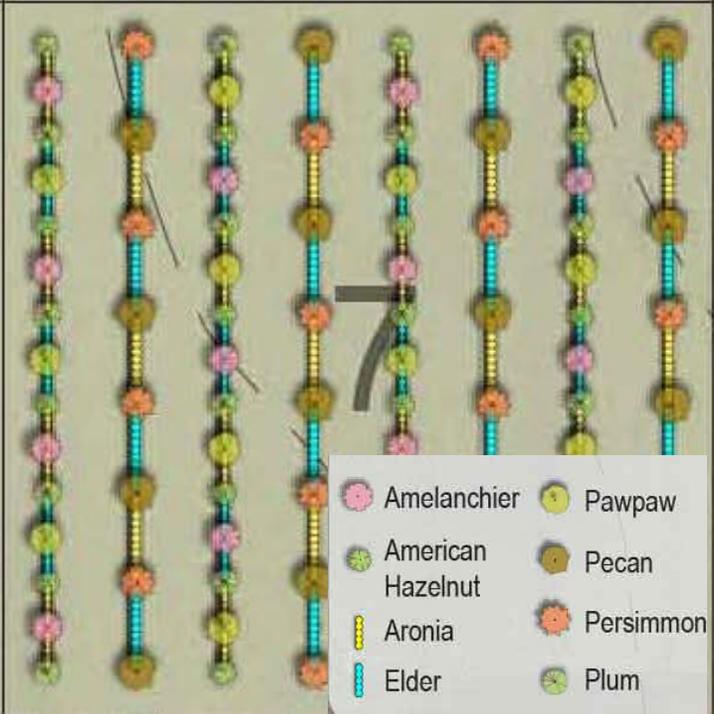
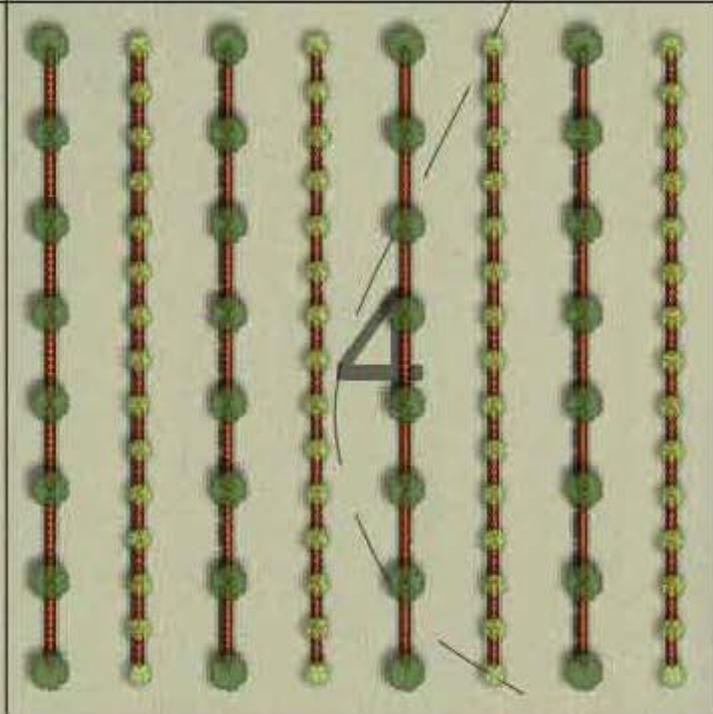
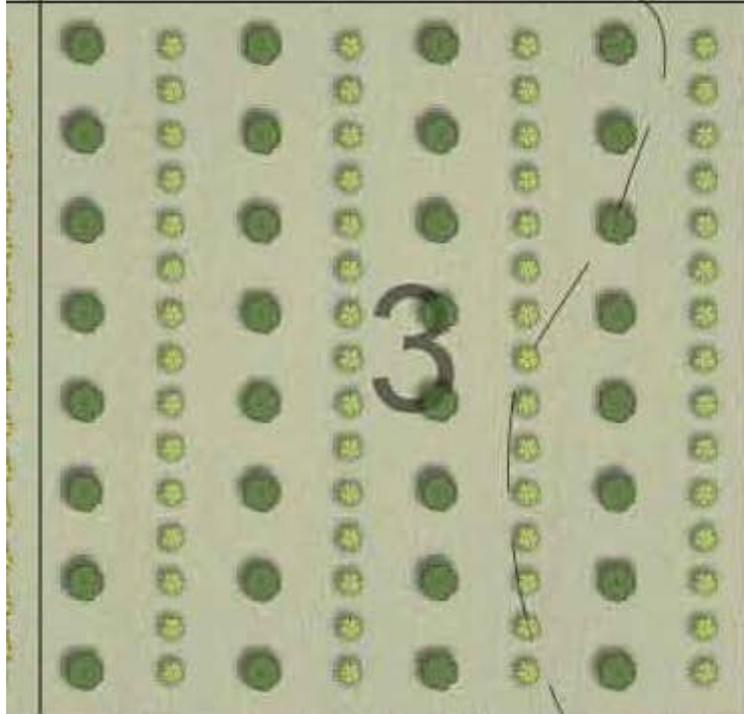
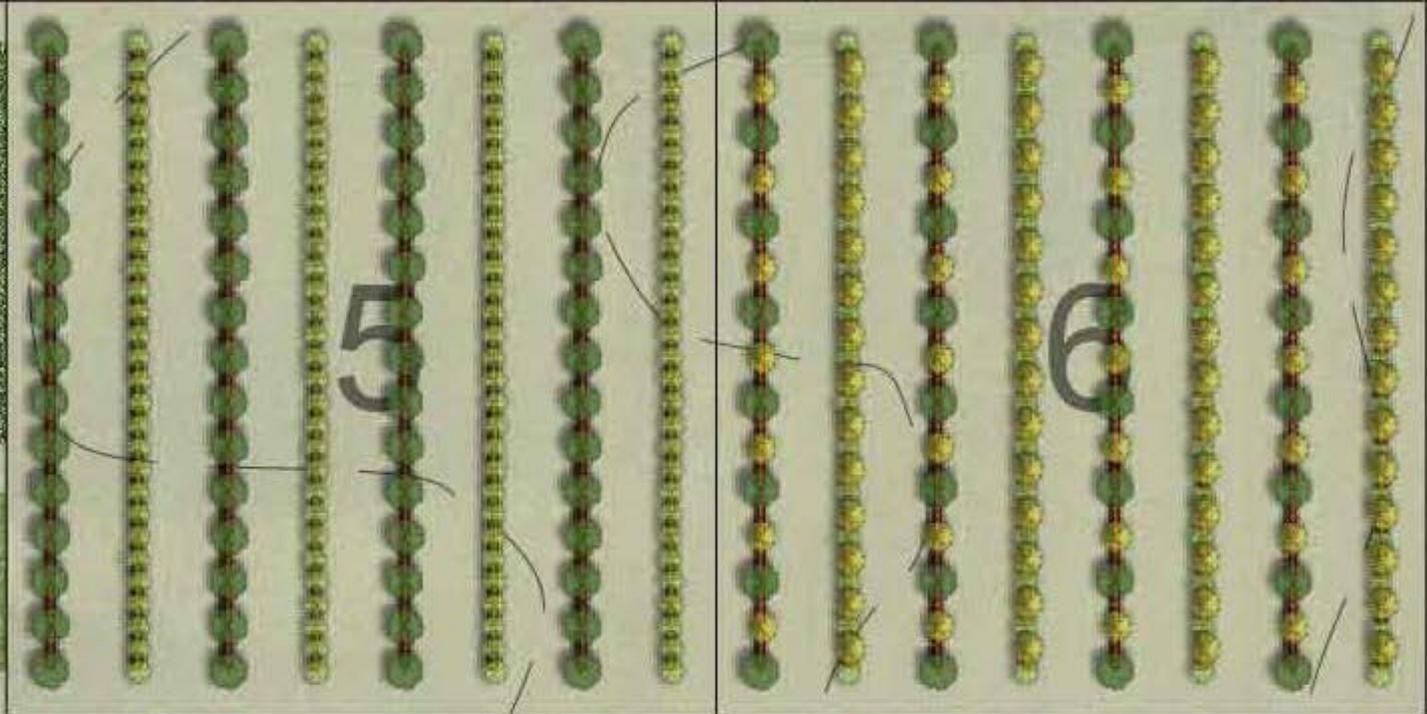
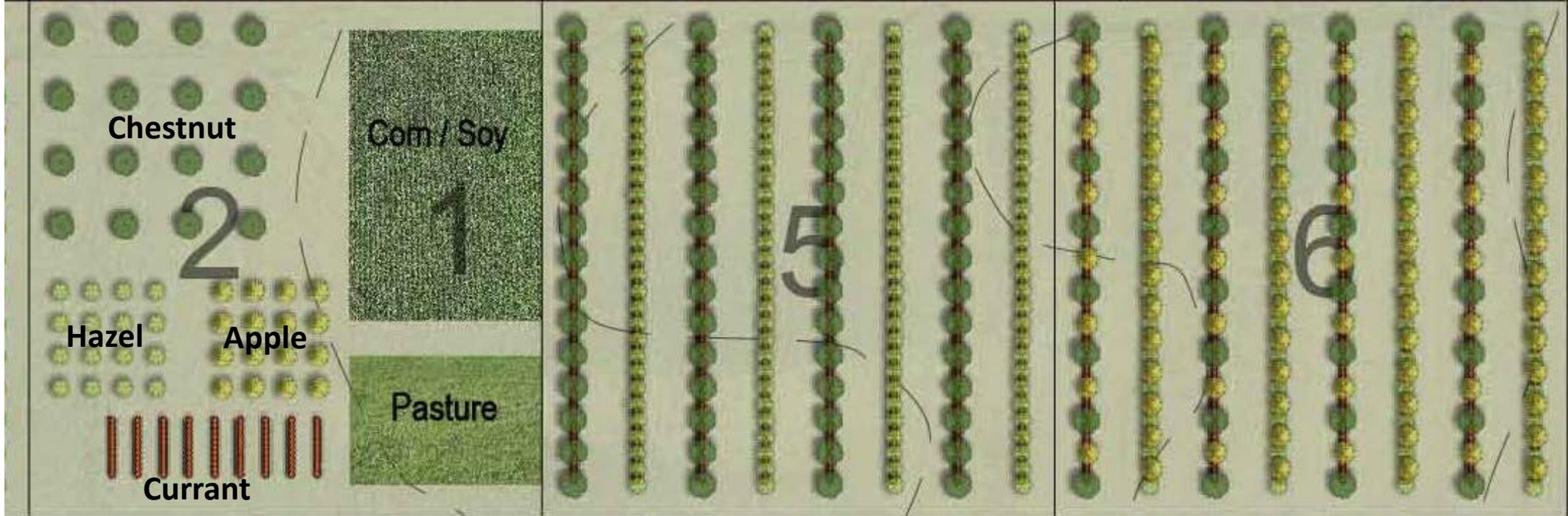
AGROFORESTRY is the integration of trees and/or shrubs with crops and/or livestock



Oak savanna ecosystem can serve as a model for structure and function of plantings



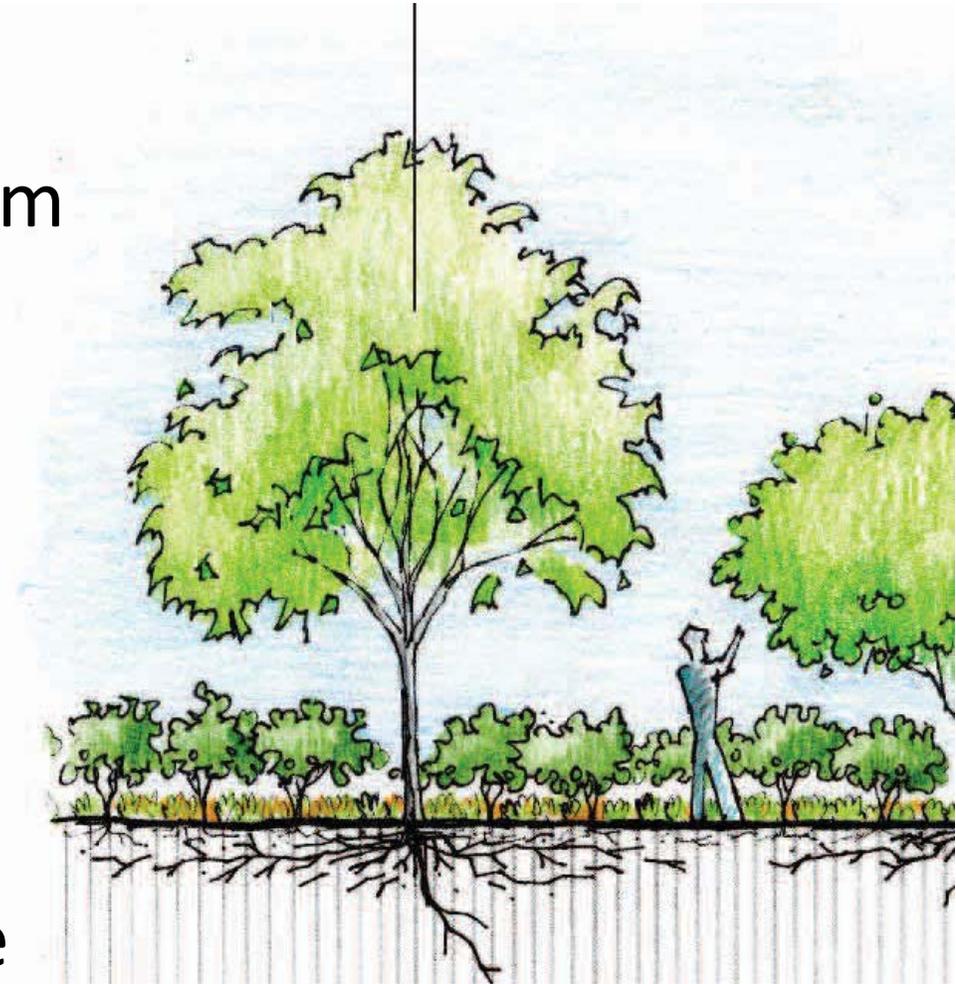


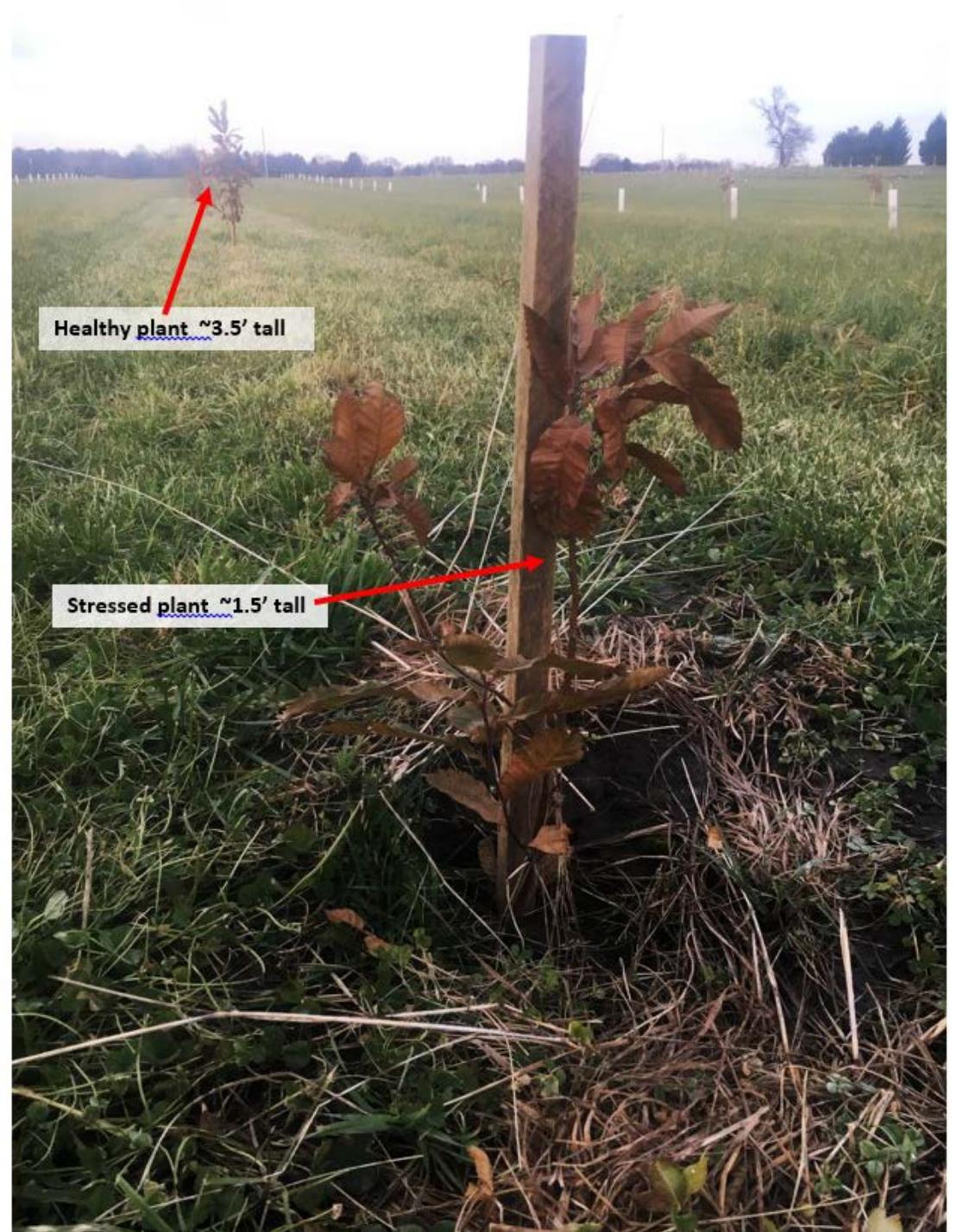


-  Amelanchier
-  Pawpaw
-  American Hazelnut
-  Pecan
-  Aronia
-  Persimmon
-  Elder
-  Plum

The goal is to obtain funding for irrigation

- iSEE funding unable to cover the cost of installing the permanent irrigation system
- Irrigation is necessary for optimal plant growth and consistent production
- Represents what growers will do
- Reduce number of years until plants become productive with fruits and nuts
- Now we have a detailed, accurate quote





Students will be further engaged with the project, including managing irrigation

- Invaluable opportunity for students to **learn and experience** innovative fruit and nut crop systems.
- System is designed for **commercial scale**, so students get the full understanding of farming in a mechanized manner.
- **Multidisciplinary** project connects several departments
- Fruits and nuts from the site are expected to be used by **Dining Services**, allowing students to experience locally grown, sustainable food in the dining halls.



Race Street

705

700

- Treatment 7
Native Plants**
- Amelanchier
 - Pawpaw
 - American Hazelnut
 - Pecan
 - Persimmon
 - Aronia
 - Plum
 - Elder

Com / Soy
1
Pasture

5

4

4

2

5

6

6

2

5

7

3

2

3

4

5

6

2

3

Budget and timeline

- The site has been assessed for irrigation, and a detailed **quote of labor and materials is available** from Indiana Irrigation Co., Inc. We have everything in place to be able to install the system this **summer (2018)**, if we obtain funding.
- Total budgetary request for this project is **\$53,546.38**
 - \$20,866 in materials
 - \$17,680 for labor
 - \$15,000 (estimated) for F&S to hook up to water line

Questions?

