

The agroecology framework in action:

Bringing hemp to Florida

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trec.ifas.ufl.edu/agroecology
programs.ifas.ufl.edu/hemp

Agroecology Framework



Agroecology Framework



Agroecology Framework



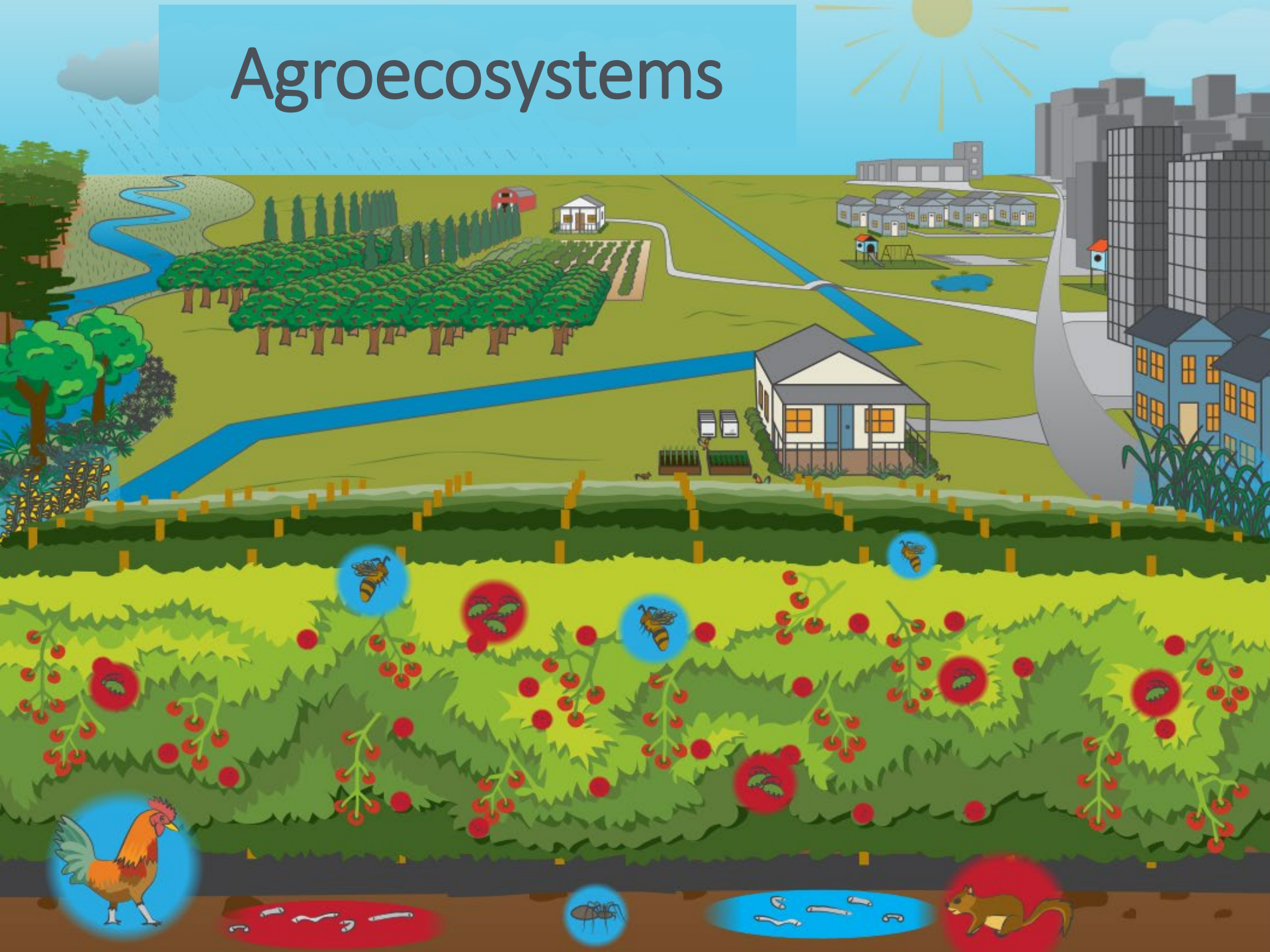
Agroecology Framework

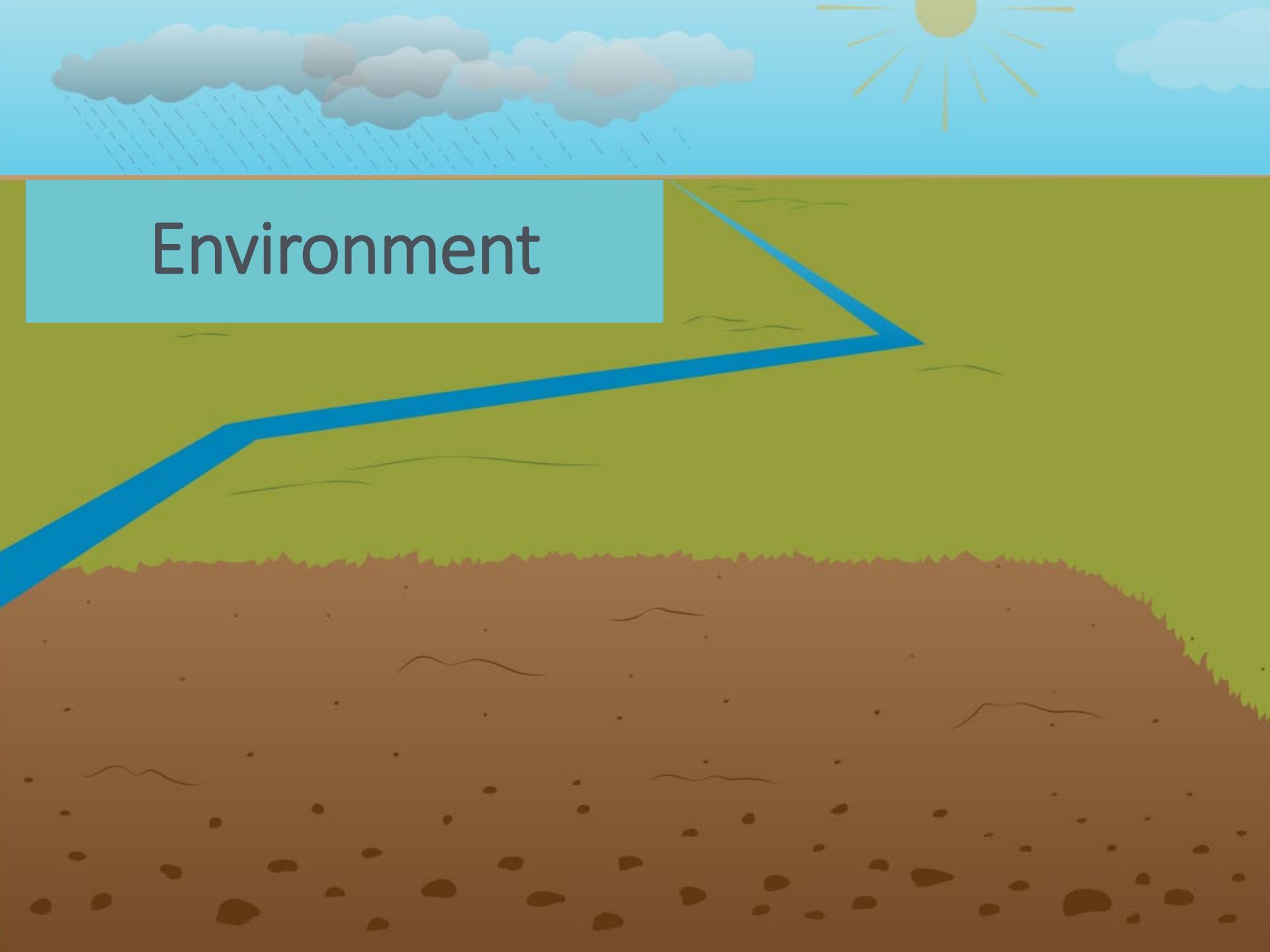


AGROECOSYSTEMS

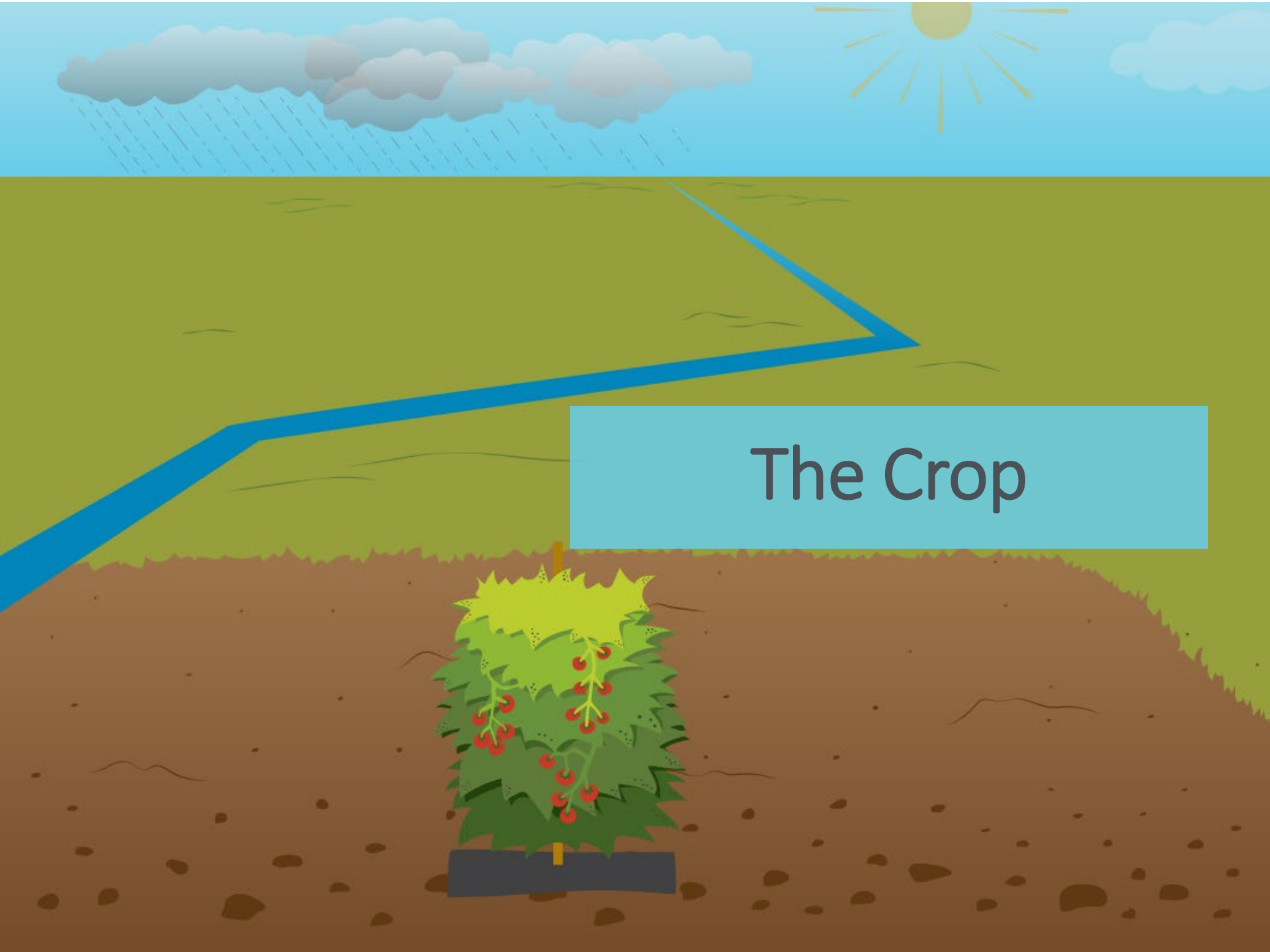


Agroecosystems

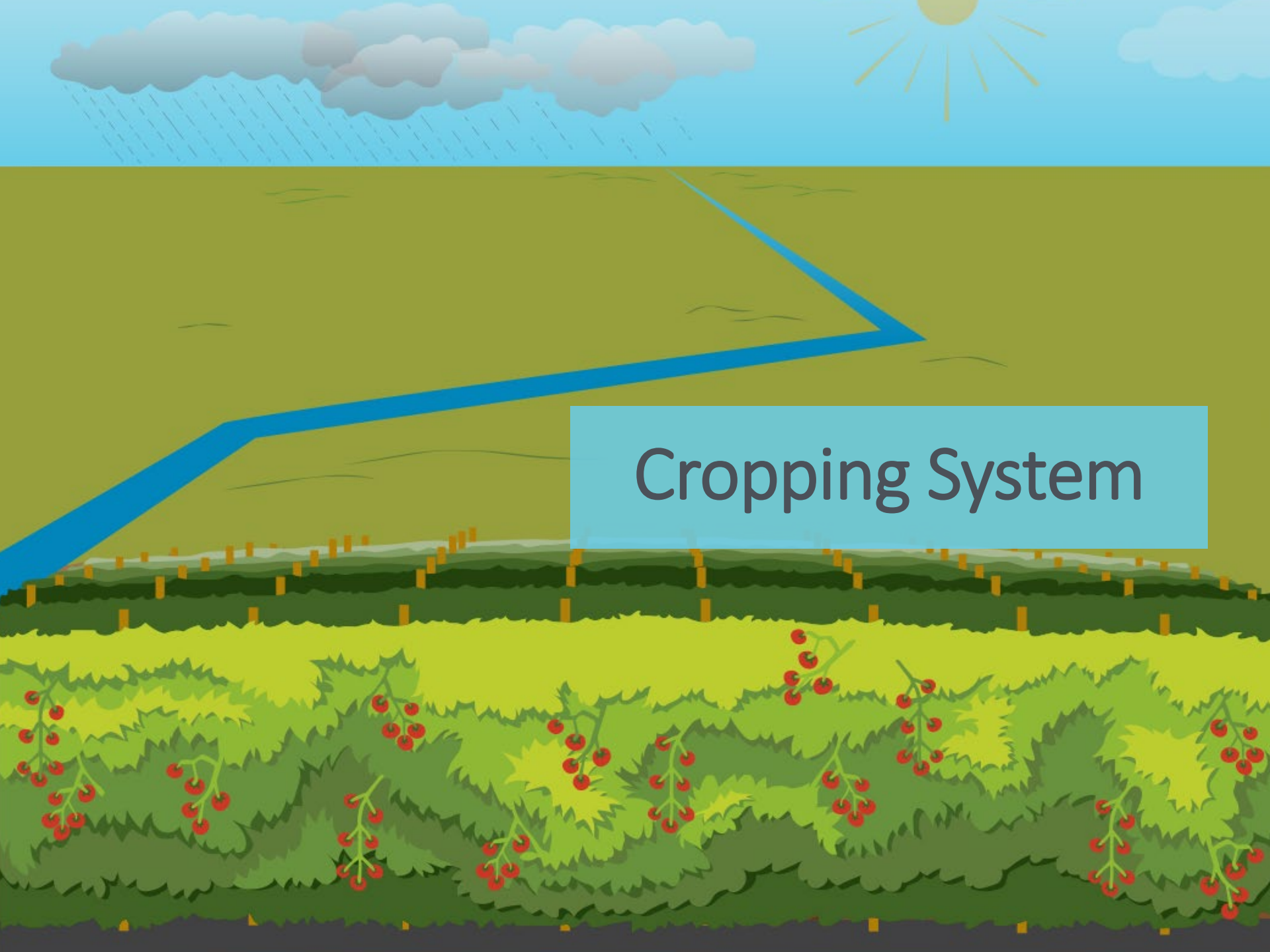




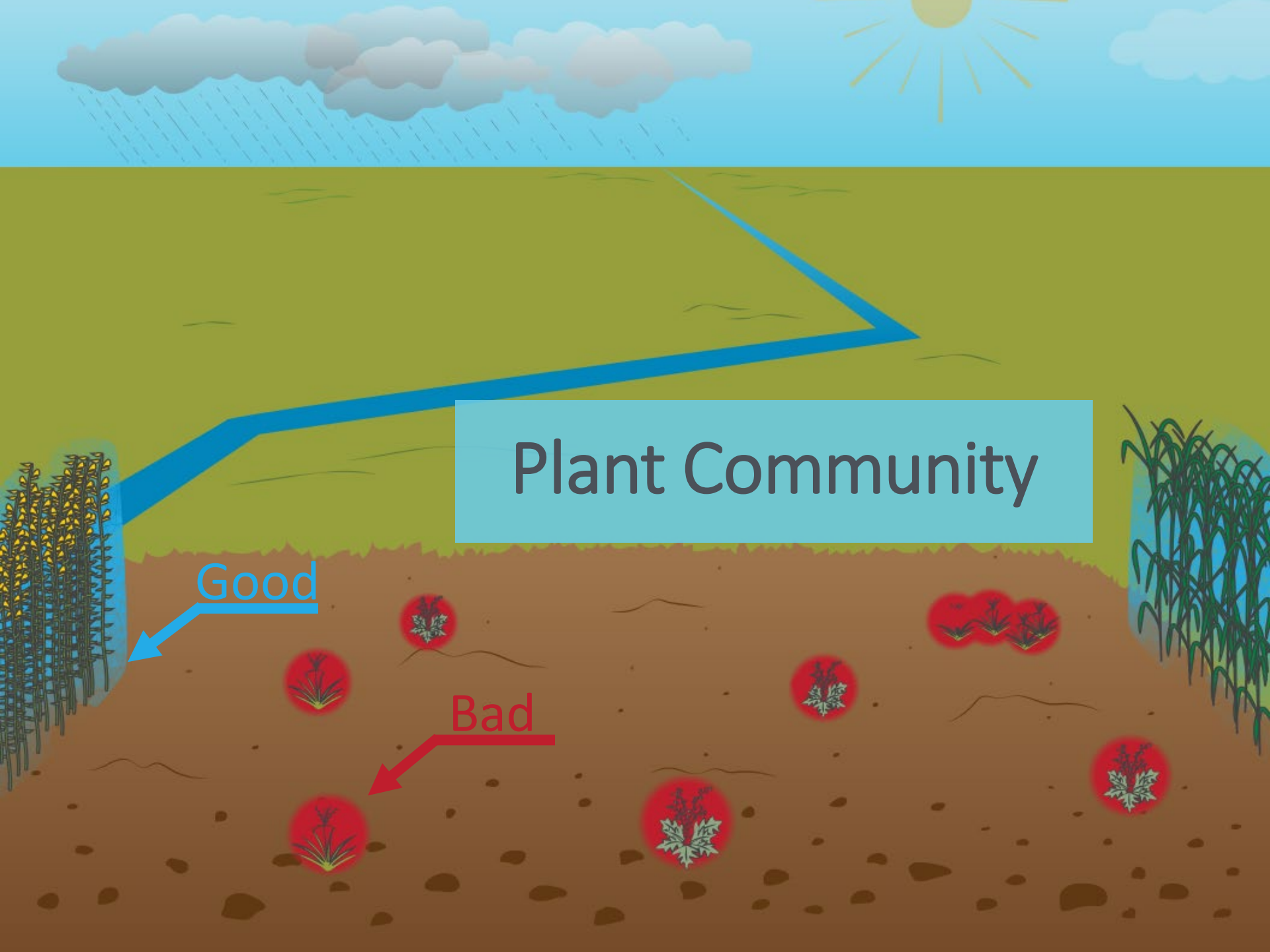
Environment



The Crop



Cropping System



Plant Community

Good

Bad



Invertebrate Community



Vertebrate Community



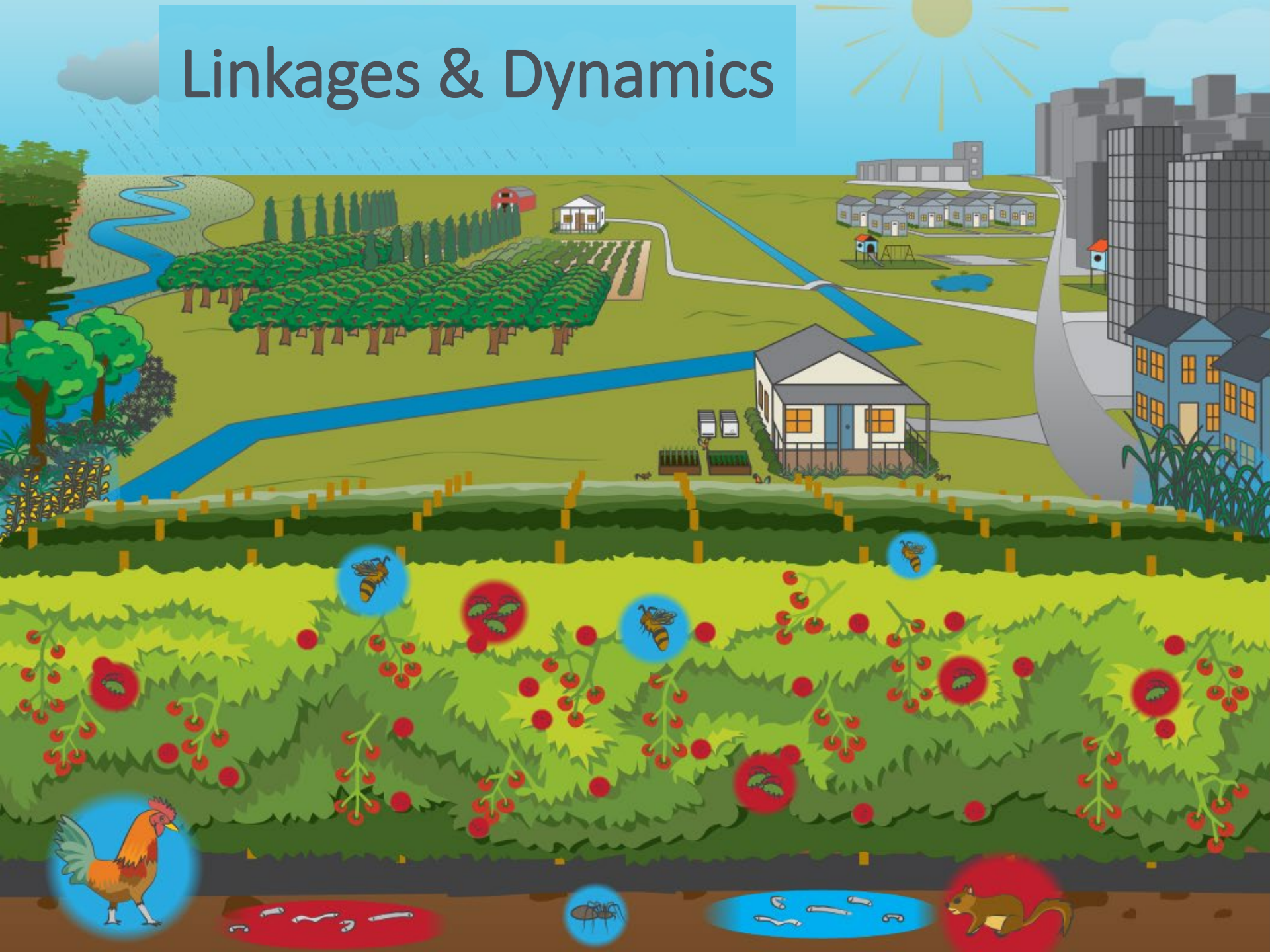


Ag Neighbors



Natural and Urban Neighbors

Linkages & Dynamics



What is *your* agroecosystem?

Hemp



Cannabis sativa with THC < 0.3% per dry weight

Botanically: indistinguishable from marijuana

Legally: distinguished by THC content

Economically: potentially valuable alternative crop

Ecologically: potential invasive species

Hemp Production

Fiber (Stem)



Grain (Seed)



CBD (Flower)



Fiber



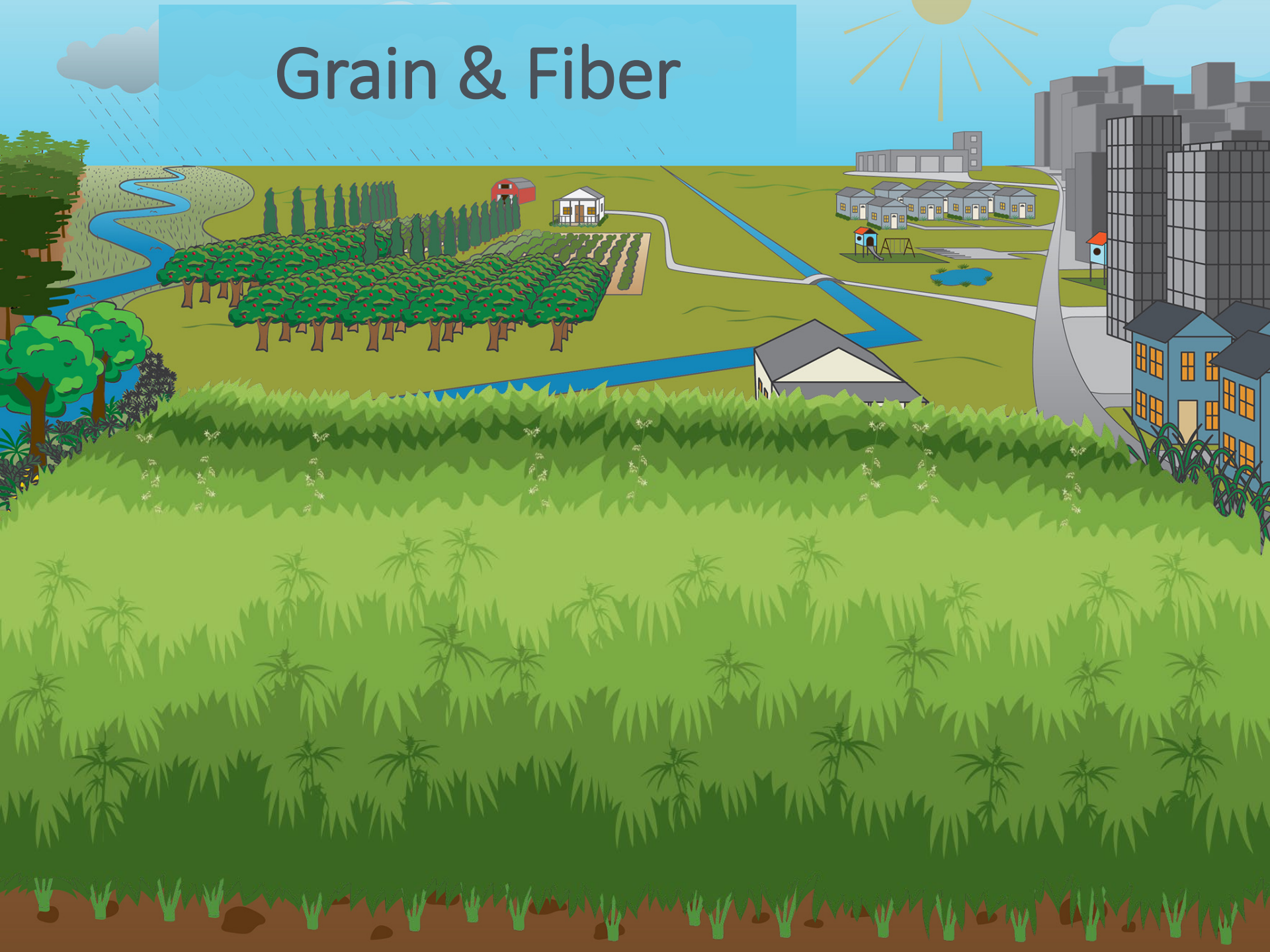
- On-the-flat
- Direct seed
- 1 million plants/acre
- 90-100 days
- Harvest at first flower
- Machine harvest stems
- Low cost – low value

Grain



- On-the-flat
- Direct seed
- ½ million plants/acre
- 100-120 days
- Pollination required
- Combine harvest seeds
- Low cost – low value

Grain & Fiber

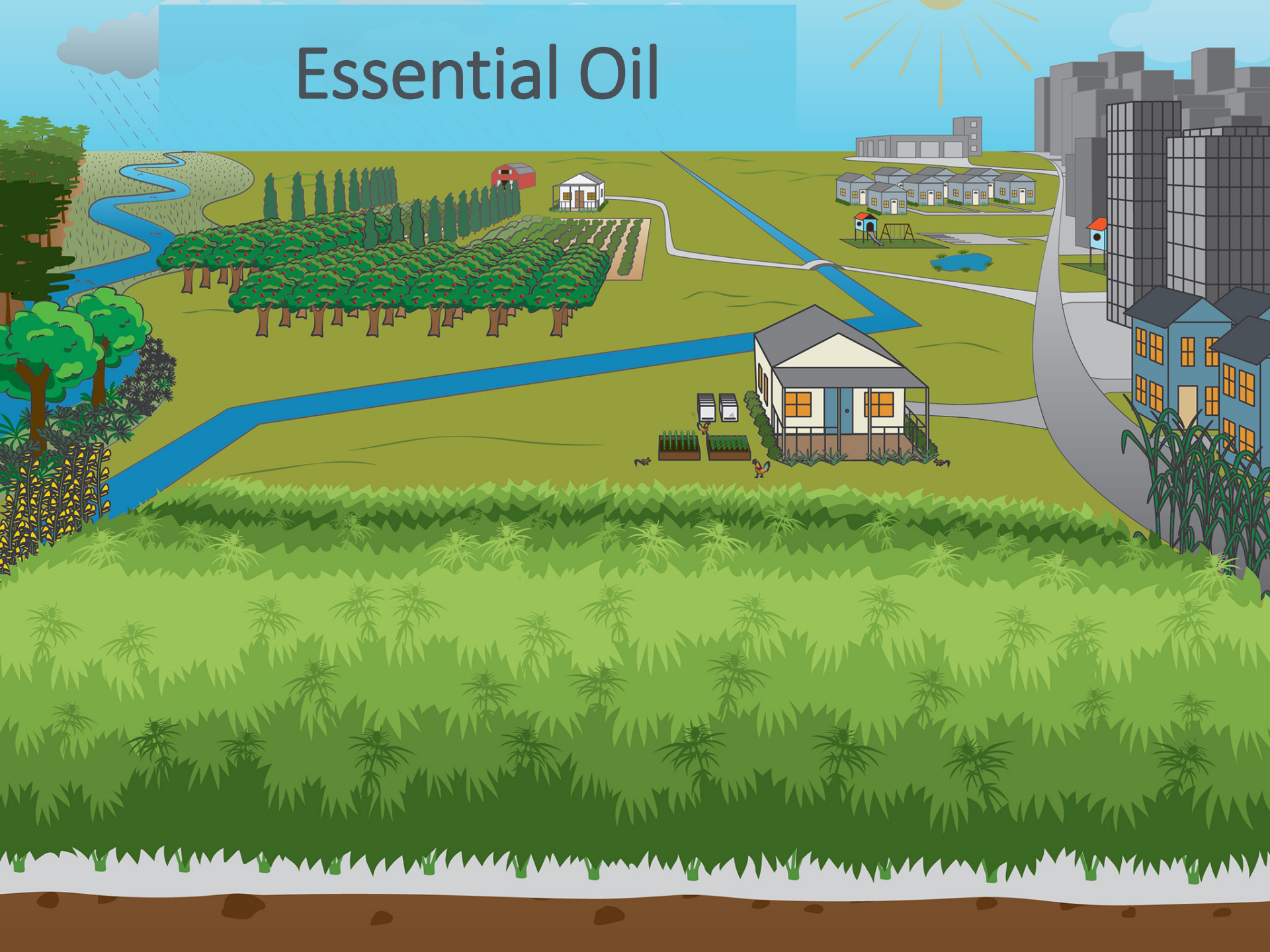


Essential Oil



- Raised bed
- Transplanted
- 2,500-10,000 plants/acre
- 90-120 days
- Unpollinated flowers
- Hand harvest flowers
- High cost – high value

Essential Oil



Hemp Agroecology



Production

- Varieties and genetics
- Cropping system design
- THC levels and 'hot' plants



Environment

- High invasion risk
- Nutrient management
- Biosecurity and agrochemicals



Society

- Seed import and transportation
- Security and law enforcement
- Banking and markets

A man with brown hair and a beard, wearing a blue button-down shirt, is smiling and holding a large cannabis plant. He is standing in a field of many similar plants. The background shows a green fence and trees under a cloudy sky. The man's shirt has two logos: 'TREC TROPICAL RESEARCH & EDUCATION CENTER' on the left chest and 'UF IFAS UNIVERSITY OF FLORIDA' on the right chest. He is also wearing a watch on his left wrist and a ring on his right hand.

QUESTIONS???

<https://trec.ifas.ufl.edu/agroecology/>
<https://programs.ifas.ufl.edu/hemp/>