

The Biggest Little Farm

Name: _____ Per: _____

Look and listen for these concepts while you watch: Biodiversity, Soil fertility, composting, disease and pests, farming practices, crop cover, water quality – algae blooms, food webs, microorganisms

Location: Apricot Lane Farm, Moorpark, California about an hour of Los Angeles.

1. Describe the type of crops that surround their farm in Moorpark?
2. At the one of largest _____ egg factories, _____ chickens laid about _____ eggs a day
3. What other monocultures occurred around their new plot of land?
4. Only the following had been grown at their farm in the past: _____
5. The consultant's goal for their farm is to emulate how _____ . They regulate themselves through _____
6. What is the area currently experiencing? _____
7. Where will they get their water from? _____
8. Is the source water infinite or finite? (circle)
9. Describe what the 'palace' is for? Where will its product go to?

Actions they've taken on the farm: Irrigation pond with catfish; seeded cover crops, dug culverts to prevent runoff, planted natives, chicken coops, planted a ton of new trees

Highest level of biodiversity possible. Plants build soil- w/o plants there will never be any soil fertility

10. What were they mailed? _____
 11. What is 'gold'? _____ Why is it consider 'gold'? _____
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-
12. Describe how cover crops at this farm leads to improved soil conditions (0:28:30):

Farm is becoming a habitat for wildlife as well. But they will need to balance needs of farm with needs of wildlife ☒ Dead ducks and chickens from coyotes

Emma the hog - gets fever from *mastitis* (infection of mammary glands)

13. What happens to the fruit on the trees? (42min-43min)
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The Biggest Little Farm

Pond (0:48:50)

14. What two issues on the farm to cause a **toxic algae bloom** in the pond.

This will cause bacteria to use _____ to decompose the organisms that die in the pond.

This means that the _____ in the pond is high.

15. At Apricot Lane Farm, describe (cause and effect) what enabled their land to sequester over 100 million gallons of water back in the **aquifer** beneath them, when farms around them lost the majority of their topsoil?

16. What's the benefit of gopher? What are the drawbacks to the gophers?

17. How were some of the pest problems naturally (without pesticides) solved on the farms?

Snails – _____

Gophers – _____

Starlings (fruit eating birds) - _____

Coyotes – _____

18. How did the soil start out? What caused it to improve (describe)? (1:18:00)

The soil was: _____

Now: _____

The Biggest Little Farm

Concepts in video: Biodiversity, Soil fertility, composting, disease and pests, farming practices, crop cover, water quality – algae blooms, food webs, microorganisms

Apricot Lane Farm, Moorpark, California about an hour of Los Angeles.

1. Describe the kind of crops that surround their farm in Moorpark ?
0:11:29 Monoculture – fields of a single type of crop
2. At the one of largest _____ egg factories, _____ chickens laid about _____ eggs a day
0:11:30-48 iNDOOR 3.5 million chickens laying 2 million eggs a day
3. What other monocultures occurred around their new plot of land?
a. Miles Raspberries under plastic hoop houses
4. Only the following had been grown at their farm in the past: **Only: lemons and avocados**
5. The consultant's goal for their farm is to...
(0:14:25 emulate how natural ecosystems work – they regulate themselves through diversity so you don't get epidemics of disease and pests)
6. What is the area currently experiencing? **0:14:43 – record drought –**
7. Where will they get their water from? **a well – water from the ground, not a municipality**
8. Is the source water Infinite or **finite**? (circle)
9. Describe what the palace is for? Where will its product go to?
(0:16:25 Worm poop to make worm poop tea to give to soil)

Actions they've taken on the farm: Irrigation pond with catfish; seeded cover crops, dug culverts to prevent runoff, planted natives, chicken coops, planted a ton of new trees

Highest level of biodiversity possible. Plants build soil- w/o plants there will never be any soil fertility

10. What were they mailed? - **chickens (0:19:39)**
Ducks, cows sheep, bulls, chickens each with a purpose to contribute
11. What is gold? **(0:21:05) Animals poop - Build a high quality compost**
12. Describe how cover crops at this farm leads to improved soil conditions (0:28:30):
Cover crop, reduces erosion, but is also food for sheep, the sheep poop and pee which provides nutrients, (nitrogen and phosphorous) for soil

Farm is becoming a habitat for wildlife as well

Will need to balance needs of farm with needs of wildlife ☹ Dead ducks and chickens from coyotes

Emma- gets fever from mastitis (infection of mammary glands)

13. What happens to the fruit on the trees? (41:40)
a. (42: 15) 70% of fruit loss to the birds, snails eat the leaves then trees can't produce fruit.

The Biggest Little Farm

Pond (0:48:50)

14. What two issues on the farm to cause a **algae bloom** in the pond.

Lack of fresh rainwater which concentrates **nutrients from all the duck poop** lead to an algae bloom

This will cause bacteria to use **dissolved oxygen** to decompose the organisms that die in the pond.

This means that the **biological oxygen demand** in the pond is high.

15. At Apricot Lane Farm, describe (cause and effect) what enabled their land to sequester over 100 million gallons of water back in the **aquifer** beneath them, when farms around them lost the majority of their topsoil?

Cover crop- (leads to better function soil – more pore space, more roots to help the absorption and percolation of water)

16. What's the benefit of gopher? What are the drawbacks to the gophers?

(1:13:25 aerate soil but eat roots of trees, which kills the trees)

17. How were some of the pest problems naturally (without pesticides) solved on the farms?

a. Snails – **ducks**

b. Gophers – **owls, hawks, gopher snakes, badgers, coyotes, guardian dogs**

c. Starlings (fruit eating birds) - **hawks**

d. Coyotes – **started eating gophers,**

18. How did the soil start out? What caused it to improve (describe)? (1:18:00)

a. The soil was: **dead, compacted**

b. Now: **9 billion microorganisms, dark, has moisture, life, nutrient rich**