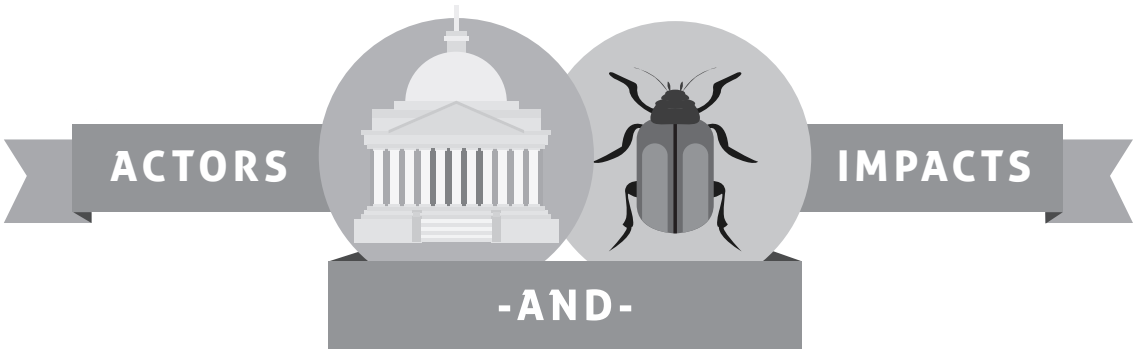
Name _____ Date _____



This table lists ways that producers, agro-industry, and government agencies can adapt to climate change. Each *adaptation* is an adjustment to mediate climate impacts of changing temperature, water availability, pests, and/or pollinators.

DIRECTIONS

1. In the actor column, write which actor or actors are responsible for each adaptation: producers, agro-industry, and/or government. More than one actor may be responsible; if so, write the names of two actors or "all" if all three actors are responsible.
2. Using the colors in the key below, highlight each adaptation to indicate the impact that it is mediating. Adaptations may help to address more than one impact; if so, highlight the adaptation with more than one color.

ACTORS

Producer: the person, or group of people that operate a farm

Agro-Industry: business connected with agriculture; involves researching technologies and disseminating information to producers

Government: agencies responsible for the creation and implementation of programs and policies to support producers and the agro-industry

YELLOW TEMPERATURE	**GREEN** PESTS	**BLUE** WATER	**PINK** POLLINATORS

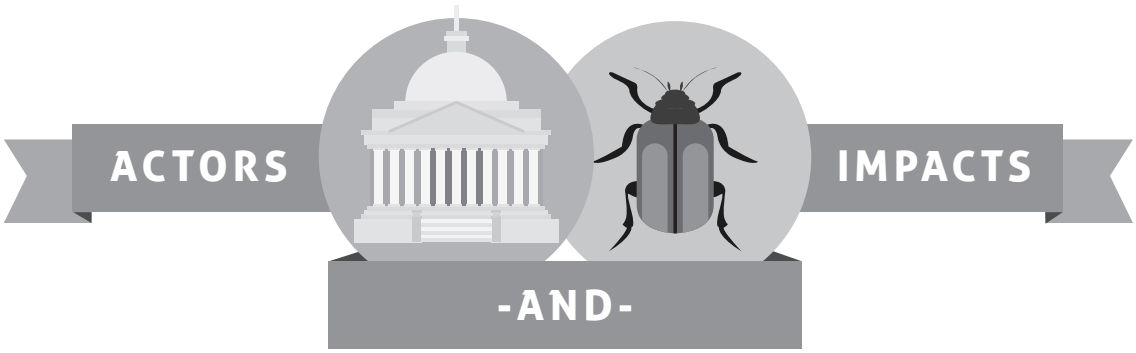
ACTOR Write Producer, Agro-Industry, or Government	**IMPACT** Highlight each *adaptation* to indicate the **impact** that it is mediating
EXAMPLE **1.** *Agro-Industry*	Develop pest suppression technologies *(Green)*
2.	Switch to an established heat-tolerant or low-chill tolerant plant variety
3.	Develop pest insurance programs for producers
4.	Alter planting and harvesting schedules
5.	Study the use of solar panels as shade structures over crops

CONTINUE ⇨

YELLOW TEMPERATURE	**GREEN** PESTS	**BLUE** WATER	**PINK** POLLINATORS

ACTOR Write Producer, Agro-Industry, or Government	**IMPACT** Highlight each *adaptation* to indicate the **impact** that it is mediating
6.	Develop technologies for efficient irrigation systems and excess water management systems
7.	City and county agencies restore habitat for native pollinators (e.g. adjusting roadside maintenance to include locally-appropriate options for vegetated roadsides)
8.	Provide technical assistance for risk management
9.	Provide cooling, such as shade structures or intercropping, to sensitive crops
10.	Choose appropriate flood tolerant or drought-resistant crops
11.	Implement an integrated pest management plan
12.	Study intercropping to reduce heat stress
13.	Develop pest resistant crop varieties
14.	Provide nesting sites for native pollinators
15.	Develop technologies of drought resistant and flood tolerant crop varieties
16.	Identify and register new and safe products or biocontrol methods to deal with Varroa mites, which attack honeybees
17.	Stay updated on emerging pests of concern
18.	Modify land management policies and programs to improve resilience to climate change
19.	Attract native pollinators and other beneficials with hedgerows, flower strips, and polyculture
20.	Study nutritional needs of honeybees, methods of supplying nutrition, and pesticide impact on honeybee health (e.g. hedgerows, flower strips)

ANSWER KEY



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YELLOW TEMPERATURE	**GREEN** PESTS	**BLUE** WATER	**PINK** POLLINATORS

ACTOR Write Producer, Agro-Industry, or Government	**IMPACT** Highlight each *adaptation* to indicate the **impact** that it is mediating
EXAMPLE **1.** *Agro-Industry*	Develop pest suppression technologies *(Green)*
2. *Producer*	Switch to an established heat-tolerant or low-chill tolerant plant variety *(Yellow)*
3. *Government*	Develop pest insurance programs for producers *(Green)*
4. *Producer*	Alter planting and harvesting schedules *(Yellow/Blue)*
5. *Agro-Industry*	Study the use of solar panels as shade structures over crops *(Yellow)*

CONTINUE ⇨

YELLOW TEMPERATURE	GREEN PESTS	BLUE WATER	PINK POLLINATORS

ACTOR Write Producer, Agro-Industry, or Government	IMPACT Highlight each *adaptation* to indicate the **impact** that it is mediating
6. *Agro-Industry*	Develop technologies for efficient irrigation systems and excess water management systems *(Blue)*
7. *Government*	City and county agencies restore habitat for native pollinators (e.g. adjusting roadside maintenance to include locally-appropriate options for vegetated roadsides) *(Pink)*
8. *Government*	Provide technical assistance for risk management *(All)*
9. *Producer*	Provide cooling, such as shade structures or intercropping, to sensitive crops *(Yellow)*
10. *Producer*	Choose appropriate flood tolerant or drought-resistant crops *(Blue)*
11. *Producer*	Implement an integrated pest management plan *(Green)*
12. *Agro-Industry*	Study intercropping to reduce heat stress *(Yellow)*
13. *Agro-Industry*	Develop pest resistant crop varieties *(Green)*
14. *Producer*	Provide nesting sites for native pollinators *(Pink)*
15. *Agro-Industry*	Develop technologies of drought resistant and flood tolerant crop varieties *(Blue)*
16. *Agro-Industry*	Identify and register new and safe products or biocontrol methods to deal with Varroa mites, which attack honeybees *(Pink/Green)*
17. *All*	Stay updated on emerging pests of concern *(Green)*
18. *Government*	Modify land management policies and programs to improve resilience to climate change *(All)*
19. *Producer*	Attract native pollinators and other beneficials with hedgerows, flower strips, and polyculture *(Pink)*
20. *Agro-Industry*	Study nutritional needs of honeybees, methods of supplying nutrition, and pesticide impact on honeybee health (e.g. hedgerows, flower strips) *(Pink/Green)*