

# **Agriculture and Climate Change Resilience in the Gorge**

## **Summary of Survey Responses**

### **November 2021**

#### **Who participated?**

- 19 people
- Orchardists, vineyard and winery owners, ranchers, state agencies, conservation districts

#### **What most interests you about these meetings?**

Responses were fairly evenly distributed, but top answers were:

- to learn strategies to improve the sustainability of my operation
- to voice my opinions to the Commission in hopes of influencing climate policies and programs
- to learn about the Commission climate change work

#### **How familiar are you with the Commission and the NSA Management Plan?**

Most participants are familiar with the Gorge Commission and have either gone through the permitting process or know about the roles and responsibilities of the Commission. A few are interested in opportunities to learn more.

#### **What are participants seeing in terms of climate effects on your properties and operations?**

Heat and dry conditions

- Sustained heat, even overnight during summer turned grapes into raisins
- Prolonged heat leading to earlier vegetative growth coupled with reduced soil moisture and exposure to wildfire smoke
- Low rain- and snowfall and lower groundwater levels means wells are producing less water and/or fluctuating more, and people are drilling deeper to access water
- Heavier rainfall leading to erosion
- Springfed water sources are diminished due to development pressures as well as precipitation
- Sediment from melting glaciers
- Drought and excessive heat
- Heat damage to fruit
- Heat stroke
- Warmer water temperatures exceed Clean Water Act standards
- Low water in soils
- Mild winters
- Hotter, dryer summers make it difficult to graze unirrigated lands in mid to late summer
- Increased traffic with people escaping the heat - causes safety issues and interferes with operations

## Fire

- Wildfire on farm properties with greater frequency and severity
- Smoke and bad air quality limited operations
- Smoke damage to fruit

## Species and crop effects

- Biodiversity losses, including perennials
- Harvest dates have moved 20+ days earlier than 20 years ago
- More invasive plants
- Bigleaf maple crown die off

## Extreme events

- Hail storms
- 118 degrees this June

## **What actions are you taking?**

### Water conservation and soil health

- Adapted irrigation system and schedule
- Transforming to subsurface irrigation to eliminate evaporative loss
- Planting a cover crop, using efficient irrigation
- Increased mulching and soil carbon farming for water retention
- Soil health improvements to retain water using management-intensive multi-species grazing
- Dry-farming tepary beans and experimenting with dry-farming other crops
- Implemented water conservation projects, better filtration systems
- Incorporating biochar into our compost

### Fire adaptation and risk reduction

- Building new construction fully consistent with national Firewise best practices
- Using drip irrigation to keep vines moist during the summer months and hopefully mitigate wildfire
- Restricting access
- Reducing fuel loads and halting machinery use during peak fire weather
- Mitigating fire hazards with brush removal

### Coping with heat and drought

- Shorter work hours per day and shifting work hours to earlier in the day (worker shortage)
- Minimized field tilling to ensure moisture/soil retention
- Shading greenhouse
- Adding riparian vegetation to shade streams, planting banks
- Advising landowners to diversity plan species to survive extreme weather
- Installed newly available moisture sensors
- Silvopasture
- Adjusting timing of operations (i.e. starting some broiler chickens earlier in the spring to minimize the number of birds during the hottest part of summer)

- Shade, rest stations, air quality masks, and water stations for workers; training on heat safety
- Added air conditioning to buildings

#### Energy efficiency

- Built energy efficient housing

#### Overall

- Changed our business model
- Reduced beef production
- Planted fir/pine groves where appropriate
- Better management of livestock
- Oak habitat restoration
- Pest management to deal with increases due to climate change

We also asked what questions you have for the Commission. We will do our best to answer those through the course of these two meetings and will ask at the end of each one if there is anything we didn't get to that you want us to cover.