

5 KEY WILDFIRE RESILIENCE PRACTICES

Every farm and ranch is a unique agroecosystem with specific environmental and management considerations for understanding which ecological farming methods are most beneficial. This guide serves as an introduction to lesser known connections between common practices and potential wildfire protection and recovery benefits.



#1 PRESCRIBED/CULTURAL BURNING

(the controlled application of fire)

Are you curious about putting “good fire” on the ground, but you’re concerned about how the neighbors or land will respond?

The controlled application of low and slow fire offers community-wide wildfire protection while improving nutrient cycling, water quality, and groundwater recharge!

Most wildfires spread through surface fuels, primarily fine materials, like leaves and twigs.

Removing these in a safe and targeted manner at the right time of year creates zones that are less likely to transfer fires across properties, produces less smoke, allows rainwater to penetrate deeper into the ground, and helps control invasive plants and pests!

#2 TARGETED GRAZING

(the controlled harvest of vegetation with grazing animals)

Many ranchers already know that targeted grazing provides soil health benefits such as increased nutrient cycling, improved water absorption, and more active soil biology through better distribution of animal urine and manure, beneficial hoof activity, and weed management.

This holds true outside of rangelands AND livestock can also provide wildfire protection by reducing and managing fuel loads!

Not only does targeted grazing on farms increase biodiversity and store more carbon in the soil, but this approach is especially valuable in thick brush or steep areas where machine access is limited or expensive and when other hazards, such as poison oak, make manual removal methods unsafe.



#3 SURFACE WATER STORAGE

(water that collects on the surface of the ground, typically a pond, creek, or lake)

On-farm surface water storage is often a vital component of successful agriculture. Sufficient amounts of clean, usable water enable crops and livestock to thrive.

Aside from agricultural benefits, surface water assists with increasing biodiversity and it is also a critical asset to have during wildfires.

Not only can surface water sources be used to create irrigated buffers and protect livestock holding areas in the event of an oncoming wildfire threat, but it can also serve as an evacuation zone.





5 KEY PRACTICES



#4 COMPOST

(a mixture that consists mostly of decayed organic material and is used for fertilizing and conditioning soil)

It is surely no surprise that when you use compost to provide slow release nutrients for crops and increase soil microbe activity, you are also improving soil organic matter. You may have even heard that for every 1% increase in soil organic matter, the soil can hold up to 20,000 gallons more water per acre.

However, it might be news to you that soils higher in organic matter and the crops that grow in them, are better able to withstand both direct and indirect impacts from wildfire such as flame contact and heat stress.

Compost is not the only way to improve soil health and increase organic matter, no-till farming methods and implementing cover crops are also very effective and provide similar protections!



#5 FIELD BORDERS

(strips of permanent vegetation such as grasses, legumes, forbes or shrubs established on one or more sides of a field)

Primarily, field borders reduce wind and water erosion and protect soil and water quality, but they can also increase carbon storage and improve air quality, which is extremely valuable in smoky conditions.

While there are known tradeoffs with field borders as a fuel source for fire, the research suggests that providing habitat for raptors and beneficial insects actually helps manage pest populations during fire recovery and it also acts as a natural filter, capturing ash and treating polluted runoff.

Some farmers are even experimenting with utilizing these zones as remediation areas to treat for fire borne toxins via fungal inoculation and also as production opportunities.

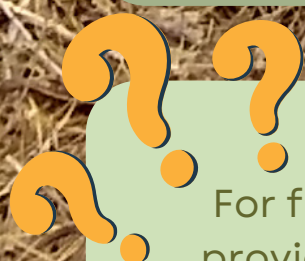
WHAT FARMERS ARE SAYING...

"Using fire to reduce fine fuels on our farm has created a real sense of security. Already burned areas simply cannot support high-intensity fire. The more we burn, the less concerned we are about wildfire, and the more interested we become in observing the land and the ecological benefits from burning."

-Tim Van Wagner, First Rain Farm

"We've been grazing 15-25 goats on our 80-acre property for the past 12 years. The fire line of the 2020 Creek Fire matched the perimeters of the land we've grazed and brushed. This is great evidence of our fuels management practices at work."

- Aaron Kern, Kern Family Farm



HAVE QUESTIONS? GET CONNECTED!

For further self study, check out the additional resources provided in the bibliography, glossary of terms, or visit the

[Wildfire Resilience Resource Library:](#)

www.caff.org/disaster-resilience/

Or talk to a human!

Contact Amber Schat- Wildfire Resilience Specialist:

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