# Changing Precipitation Heightens Wildfire Risk in Agriculture

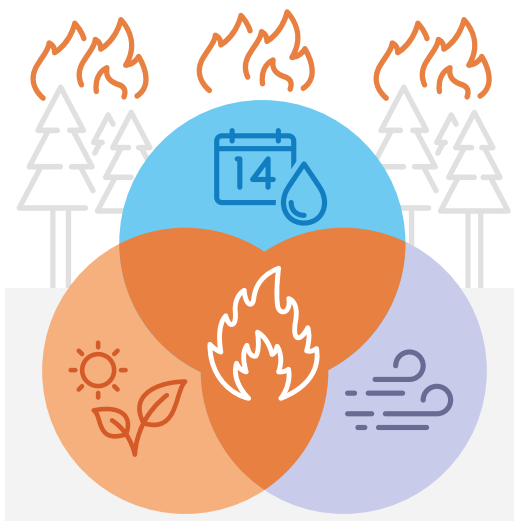
Wildfire risk can and should be looked at as a type of water risk. Scientific projections show growing wildfire potential in California.

**Agriculture professionals should be aware of this because it directly impacts the risk profiles of the parcels in their portfolios.**

## UNDERSTANDING WILDFIRE RISK IN CALIFORNIA: **3 MAIN RISK FACTORS**



Together, dry vegetation and powerful offshore winds can spell disaster...




...and a delayed rainy season can make the situation even more volatile.

## DELAYED RAINS MAKE FOR A **SHORTER, SHARPER WET SEASON...**

Seasonal precipitation now **arrives nearly a month later** than it did 60 years ago,[1]

### Average monthly rainfall, July-June

Deeper color saturation indicates heavier precipitation.

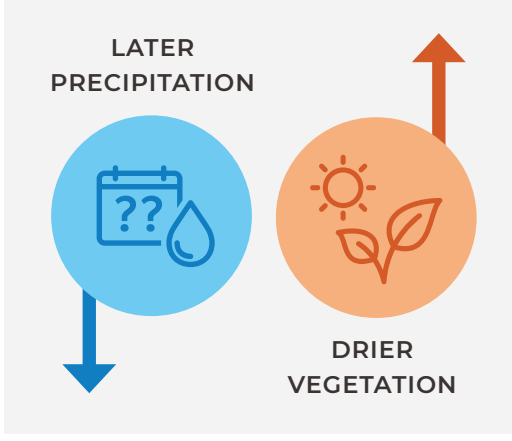
| | J | A | S | O | N | D | J | F | M | A | M | J |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1960-1989 | | | | | | | | | | | | |
| 1990-2019 | | | | | | | | | | | | |


## AND A **LONGER, MORE SEVERE FIRE SEASON.**

Delayed precipitation can result in 1-2 months of negative water balance, causing “even living vegetation” to become drier and more flammable as “water in the soil column becomes depleted toward the end of the dry season”. [1]

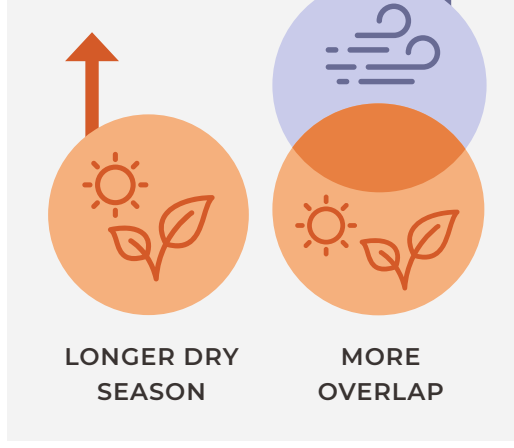
### Effect of Precipitation Delays on Negative Water Balance

As the precipitation delay grows, so does the period of peak vegetation dryness. [1]




### Precipitation Deficit Overlap with Offshore Winds

A longer dry season means a larger period of overlap with peak offshore winds. [1]




## AGRICULTURAL PROFESSIONALS SHOULD BE CONCERNED.

Wildfire probability **presents additional risk to agricultural lending portfolios** and should be factored into due diligence.

## Data-driven intelligence can help.

Data-driven intelligence can help ag professionals closely monitor the parcels in a portfolio that wildfires put at risk.

AQUAOSO

**AQUAOSO provides wildfire monitoring capabilities to put wildfire in the context of agricultural portfolios.**

1. Swain, D. L. (2021). A shorter, sharper rainy season amplifies California wildfire risk. Geophysical Research Letters, 48, e2021GL092843. https://doi.org/10.1029/2021GL092843