GREEN CANYON VENTURES

WILDFIRE SUPPRESSION TECHNOLOGY

FS-01 Fire Suppressant

A suppressant, not a retardant. Internationally patented.

www.greencanyon.us



THE PROBLEM

Wildfires are a growing threat

63,837

Wildfires a year in the United States on average, 2015–2025

7.3M

U.S. acres burned a year on average, 2015–2025

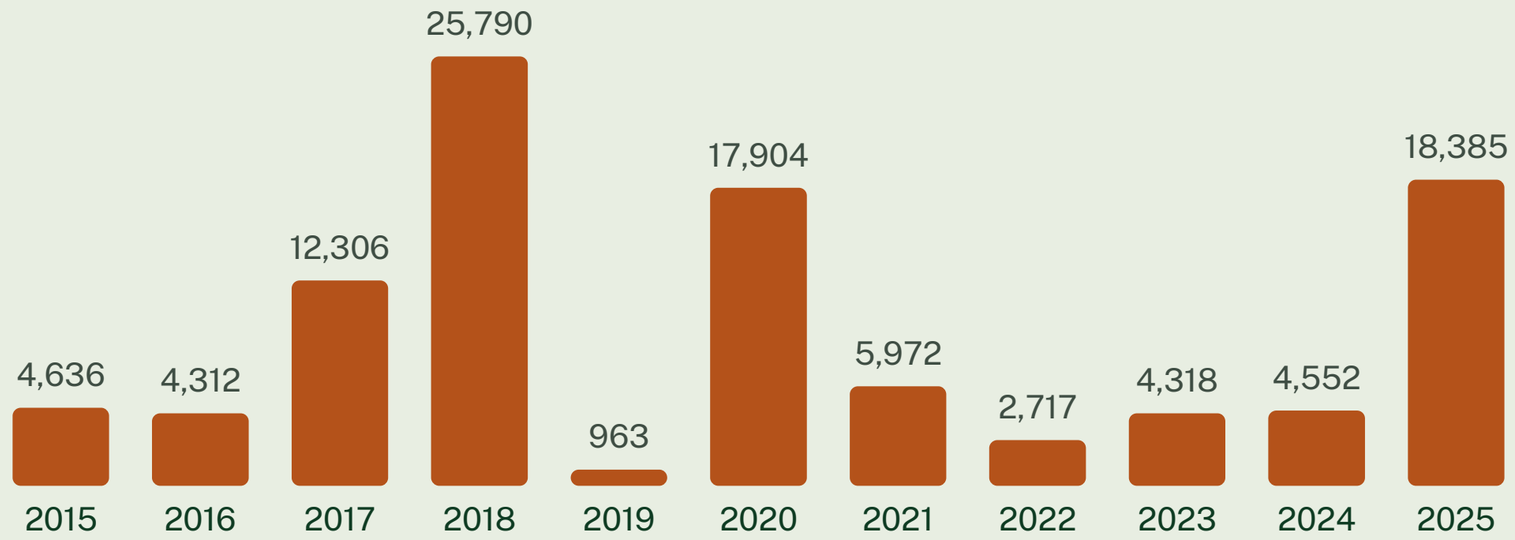


Source: National Interagency Fire Center (NIFC)

THE PROBLEM

The toll on homes and buildings

101,855 structures destroyed by U.S. wildfires from 2015 to 2025



More than 4.5 million U.S. buildings are at high to extreme wildfire risk.

Sources: NICC annual reports; CRS, Wildfire Statistics



THE SOLUTION

A suppressant, not a retardant.

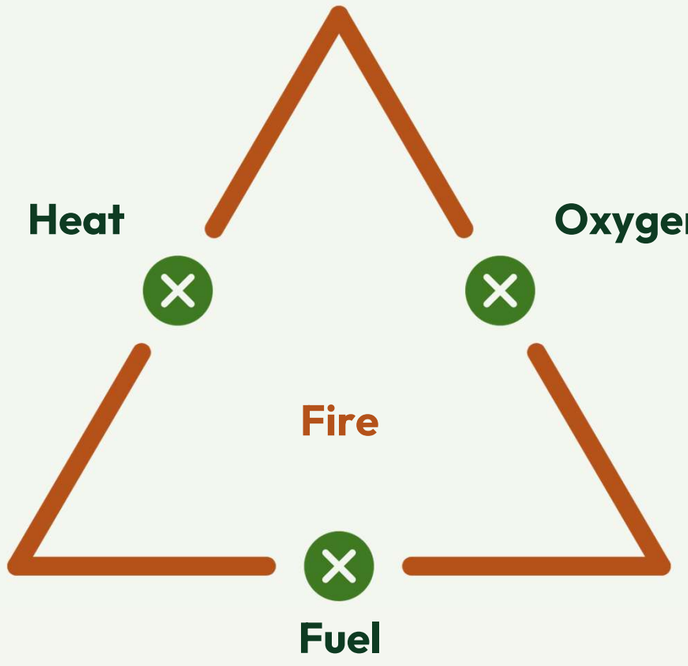
FS-01 is designed to put fires out, not just slow them down.

- Non-toxic
- Biodegradable
- PFAS-free
- Internationally patented

FS-01

HOW IT WORKS

FS-01 breaks the fire triangle on all three sides



A fire needs heat, oxygen and fuel. Remove one side and it goes out. FS-01 attacks **all three at the same time**, across the whole area it covers.

Heat: massive cooling

An endothermic reaction absorbs the fire's energy, lowering the temperature from 976 °C (1,789 °F) to 62 °C (144 °F).

Oxygen: smothered by nitrogen

The reaction releases large amounts of nitrogen, which displaces the oxygen the flames need.

Fuel: shielded from igniting

Other components coat the vegetation, so the fire cannot reach or reignite it.

WHY CHANGE

Retardants slow fires. They don’t stop them.

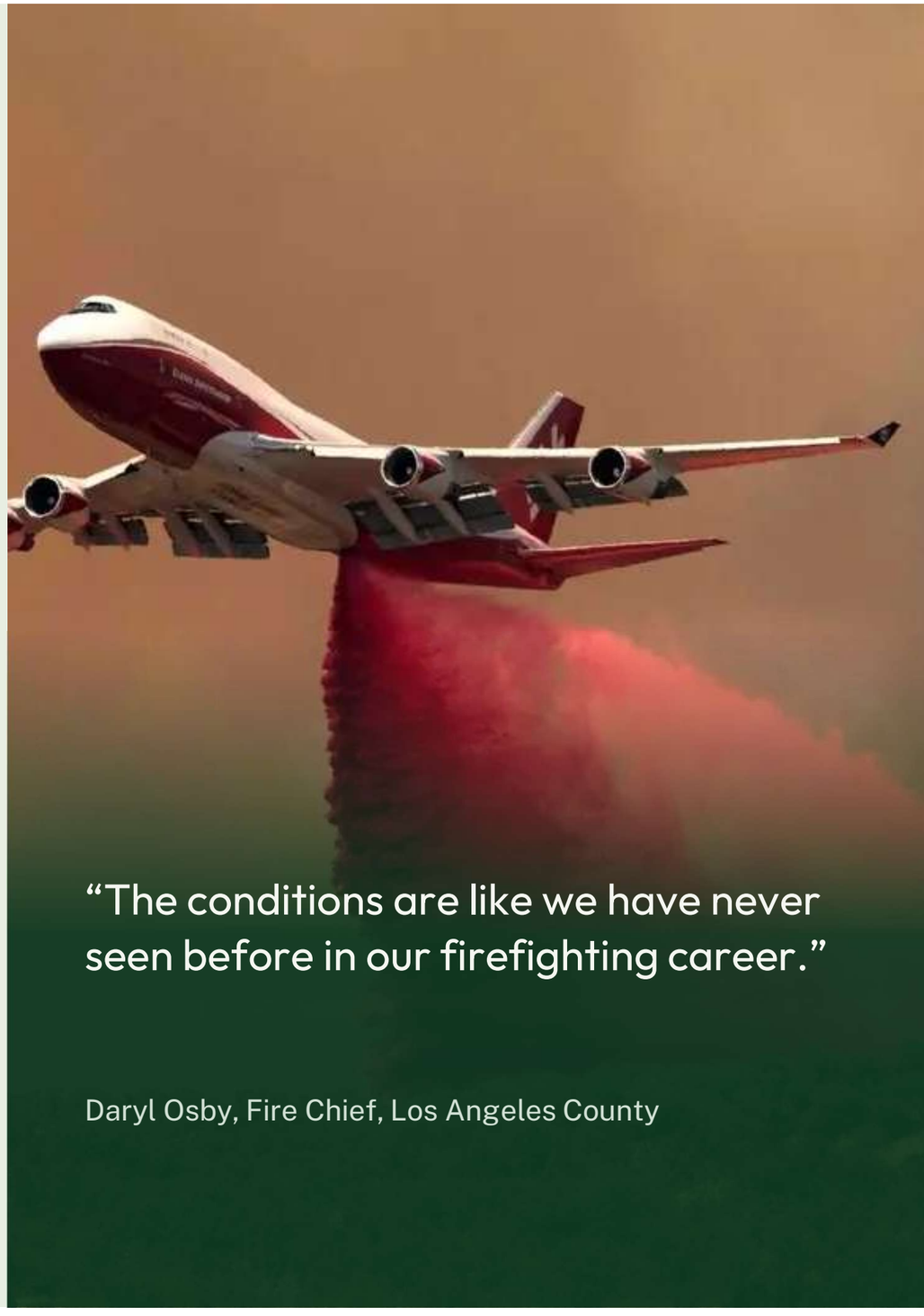
- In use for about 70 years with little change.
- They only delay the spread. Ground crews still have to put the fire out.
- Toxic: the U.S. Forest Service bans their use within 300 ft of water.

THE RESULT, YEAR AFTER YEAR

7.3M
Average acres burned a year

9,260
Average structures lost a year

U.S. averages 2015–2025. Sources: NIFC; NICC; CRS



PERFORMANCE

FS-01 versus long-term retardants

Measure	Retardants	FS-01
Fires extinguished	40–60%	100%
Reduction in acres burned	20–50%	80%
Firefighter safety	50%	100%
Change in suppression costs	+15 to +30%	−50%
Blocks fire	No	Yes
Biodegradable	No	Yes
Non-toxic	No	Yes
Non-contaminating	No	Yes

Source: Green Canyon data

ECONOMICS · ONE FIRE, SAME AIRCRAFT

84% lower cost per fire with FS-01

FS-01 fire suppressant

$22,275

80% less area burned · non-toxic, biodegradable

Applications	1
Product (450 gal at 15% mix)	$13,275
Flights	$9,000
Ground crews	Not needed

Long-term fire retardant

$136,000

20–30% less area burned · toxic to aquatic life

Applications	4–6
Product (3,000 gal at 25% mix)	$90,000
Flights	$36,000
Ground crews	$10,000

Scenario: Lockheed P-3 Orion, 3,000 gal (11,000 L) tank. FS-01 at $29.50/gal; retardant at $30.00/gal.

CASE STUDY · CAMP FIRE, PARADISE, CA, 2018

What FS-01 could have changed

Acres burned

153,336 actual

30,667 with FS-01 (estimate)

Buildings destroyed

18,804 actual

1,880 with FS-01 (estimate)

Green Canyon estimates **80% fewer acres burned** and **50% lower suppression costs**.



Actual: CAL FIRE. Estimates: Green Canyon.

PROOF

Five years of testing, proven on real fires

Used on real fires in

Spain · Portugal · Brazil · Chile · Australia · USA · Canada

100% effective
on real fires when applied correctly

Certified
by emergency and research bodies in Spain, Portugal, Brazil and the EU

Certification in Canada
currently in progress

VALIDATION

Tested by universities and drone centers

Sep 2022

Colorado State fire test

Oct 2023

Colorado State drone test

Nov 2025

Barcelona Drone Center drone test

Jan 2026

University of Florida, Forestry Department fire test

In the field

Real wildfire application in Spain



Colorado fire test, 2022



Colorado drone test, 2023



University of Florida test, 2026

SAFETY AND ENVIRONMENT

Non-toxic, 100% biodegradable and PFAS-free

100% biodegradable

96% biodegraded in 28 days as concentrate
100% biodegraded in 28 days mixed with water

Aquatic toxicity: non-toxic

Fish LC50 (96 h): 6,930 mg/L
Worm LC50 (96 h): 4,697.3 mg/L
Daphnia EC50 (48 h): 10,000 mg/L

Human safety: non-irritating

Oral and dermal LD50: 2,000 mg/kg
Eye irritation (BCOP): 8.74
Eye corrosion (OECD 405): non-corrosive

Metal corrosion: non-corrosive

mm/year: aluminum 0.009 · copper 0.004
cast iron 0.094 · brass 0.094
stainless steel 0.002

Source: Green Canyon laboratory reports

REGULATION

Approved for use in the European Union



Registered under REACH with the European Chemicals Agency (ECHA), the EU’s framework for chemical safety.

SEE IT WORK

Watch the demonstrations

Fire stops at the edge of the treated area
youtu.be/bln8dEchhQE

Burning gasoline pool: FS-01 versus water
youtu.be/W61lbf-KSeY

Real wildfire: aerial drop from a C-130 Hercules with MAFFS
youtu.be/nFXvJOTTBOY

Controlled real wildfire test
youtu.be/8E-dFGi75Ak

Company presentation: English · Español. All videos at greencanyon.us.

MARKET

Suppression budgets run into the billions

$2.8B

average yearly U.S. federal suppression cost, 2015–2023

$4.4B

record federal suppression cost, in 2021

$2.4B

actual USFS cost in 2017, against a $1.3B budget

Potential customers

U.S. Forest Service | States | Counties | Cities | U.S. Armed Forces | Private landowners

Source: NIFC, Federal Firefighting Costs (Suppression Only)

BEYOND WILDFIRES

Built for structural fires too

470,000

structure fires a year in the U.S.

$20B

in average annual losses

FS-02: the only product for residential and commercial sprinkler systems

REITs · Insurers · Building owners · Property managers · Governments · Military



ROOM FIRE TEST, 2013

A 15 × 13 ft room set alight with gasoline and an accelerant was put out with a single 15 L backpack, with 3.5 L left over.

Read more: Structural Fires presentation, FS-02 (PDF)

BEYOND WILDFIRES

Oil and gas, and military bases



Oil and gas: FS-03 foam

Sharply lowers the fire’s temperature for safe, fast extinction of industrial and fuel fires.



Military: PFAS-free

PFAS foams have contaminated soil and groundwater at bases. Green Canyon’s products protect infrastructure, vehicles and ships, even mixed with seawater.



IN MEMORY

Of the 19 Granite Mountain Hotshots who died in 2013, and of everyone who has lost their life to fire.

GREEN CANYON
VENTURES

info@greencanyon.us

www.greencanyon.us

USA +1 786 991 4134 · Spain +34 687 173070