



EXTENSION

College of Agriculture,
Biotechnology & Natural Resources

PEER
REVIEWED
FS-09-05

BE

EMBER

AWARE!

Will **YOUR** home survive when the embers arrive?



A wooden house, a small pile of pine needles and glowing embers ...



During a wildfire, thousands of embers can rain down on your roof and pelt the side of your home like hail during a storm. If these embers become lodged in something easily ignited on or near your house, the home will be in jeopardy of burning. Embers coming into contact with flammable material is the major reason why homes are destroyed during wildfire.

Common materials that become embers during wildfire include pine cones, branches, tree bark, and wooden shingles. Depending on fire intensity, wind speed, and the size of materials that are burning, embers can be carried more than a mile ahead of the fire. Consequently, even homes located blocks away from the actual flame front are vulnerable to ignition and complete destruction.

By being ember aware and taking action ahead of time, a homeowner can substantially reduce the ember threat. Your home CAN survive when the embers arrive.

... were all that it took to destroy this home.



Where is this home vulnerable to ember attack?



Ember Awareness Checklist

1

Roofs

Replace wood shake and shingle roofs with fire-resistant types such as composition, metal and tile.

2

Roof Openings

Plug openings in roof coverings, such as the open ends of barrel tiles, with non-combustible materials.

3

Roof Debris

Remove plant debris, such as pine needles, leaves, branches and bark, from the roof.

4

Skylights

Replace plastic skylights with types constructed of double-pane glass. One of the panes should be tempered glass. Close skylights if wildfire is threatening.

5

Spark Arrester

Install an approved spark arrester on chimneys.

6

Windows

Replace single-pane, non-tempered glass windows with multiple-pane, tempered-glass types. Close all windows if wildfire is threatening.

7

Vents

Cover attic, eave and foundation vents with 1/8-inch wire mesh or install new vent types designed to prevent ember entry. If wildfire is threatening, consider covering vent openings with pre-cut plywood or aluminum foil folded several layers thick and stapled.

8

Rain Gutters

Keep rain gutters free of plant debris during fire season. Consider using rain gutter covers to reduce maintenance.

9

Siding and Trim

Fill gaps in siding and trim materials with a good quality caulk and replace building materials in poor condition.

10

Woodpiles

Move firewood stacks and scrap lumber piles at least 30 feet from the house or other buildings.

11

Patio Furniture

Place combustible patio furniture, such as lounge chairs, tables and hammocks, inside the house or garage if wildfire is threatening.

12

Decks

Replace any weathered or decayed materials, as well as deck boards that are less than one inch thick, with thicker boards in good condition. Use metal flashing between the deck and the house. Routinely remove plant debris from the gaps between deck boards, the gap between the deck and the house, and lying on top of the deck. Remove plant debris, woodpiles and other easily ignited materials from under decks. Consider enclosing the open sides of the deck with ignition-resistant siding materials that are properly vented or 1/8-inch wire mesh to reduce maintenance, the amount of windblown debris and deter ember entry. Do not use wooden lattice to enclose decks.

13

Porch and Deck Accessories

Remove combustible materials from the porch and deck if wildfire is threatening. This includes newspapers, wicker baskets, door mats, pine cones and dried flower arrangements. Move barbecues with small propane tanks into the garage. Place larger tanks that are 5 gallons or more away from the house where they can safely vent.

14

Flowerboxes

Remove wooden flowerboxes from beneath windows if wildfire is threatening.

15

Eaves

Cover open eaves with sheathing, such as plywood or fiber-cement board. Use tongue and groove joints or other intricate joint types and do not use butt joints.

16

Flowerbeds

Replace wood mulches with noncombustible types and remove plant debris, including dried grass and flowers, dead leaves and dead branches from flowerbeds next to the house, other buildings and next to wooden fences. Replace ornamental junipers with low-growing deciduous shrubs or flowers under irrigation.

17

Vehicles

Close vehicle windows. Back into the garage and close the garage door or park away from the house.

18

Garage Door

Adjust garage doors to achieve as tight a fit as possible with the door frame. Consider using trim around the garage door opening to reduce the size of the gaps. Close the garage door if wildfire is threatening.

19

Garbage Cans and Recycling Bins

Use metal garbage cans covered with tight fitting lids near the house or other buildings. Move newspaper recycling bins indoors.

20

Fences

Maintain wooden fences in good condition and create a noncombustible fence section or gate next to the house for at least five feet.



This house was ignited by burning embers landing on vulnerable spots. Notice the adjacent forest is not burning.



For more wildfire threat reduction tips, go to livingwithfire.com

Be Ember Aware! Will Your Home Survive When the Embers Arrive? FS-09-05 was produced by University of Nevada, Reno Extension. It was written by Ed Smith, former Natural Resource Specialist, with assistance from Sonya Sistare, former Living With Fire Program Co-manager. The Ember Aware project is part of the Living With Fire Program. The Living With Fire Program works in a complementary and collaborative fashion with the Ready, Set, Go! Program. Funding for the original project was provided by a National Fire Plan grant from the Bureau of Land Management, Nevada State Office. This reprint was made possible by an Assistance Agreement with the BLM. Graphic design and layout provided by the RGJ Custom Publishing Group with 2022 accessibility updates provided by Megan Kay, Living With Fire Outreach & Content Coordinator.

University of Nevada, Reno Extension is a partnership of Nevada counties; University of Nevada, Reno; and the U.S. Department of Agriculture.

Copyright © 2009, 11th edition – October 2022. University of Nevada, Reno Extension. All rights reserved. No part of this publication may be reproduced, modified, published, transmitted, used, displayed, stored in a retrieval system or transmitted in any form or by any means electronic, mechanical, photocopy, recording or otherwise without the prior written permission of the publisher and authoring agency. The University of Nevada, Reno is committed to providing a place of work and learning free of discrimination on the basis of a person's age (40 or older), disability, whether actual or perceived by others (including service-connected disabilities), gender (including pregnancy related conditions), military status or military obligations, sexual orientation, gender identity or expression, genetic information, national origin, race (including hair texture and protected hairstyles such as natural hairstyles, afros, bantu knots, curls, braids, locks and twists), color, or religion (protected classes). Where discrimination is found to have occurred, the University will act to stop the discrimination, to prevent its recurrence, to remedy its effects, and to discipline those responsible.

