

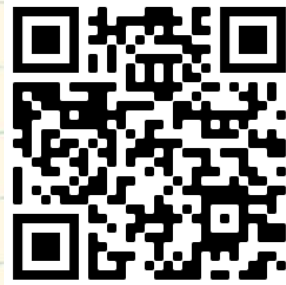
# WE NEED YOUR HELP!



We are glad to provide these materials for free. In order for us to continue receiving funding for new materials, we need to collect information on how they are used.

Thank you for taking the time to answer the following one-minute survey.

There are three ways to complete the survey:



- 1** Scan this code with your smartphone camera
- 2** Type the following link into your web browser:  
<https://plantheroes.org/educator-survey>
- 3** Email your answers to:  
[plantheroes@publicgardens.org](mailto:plantheroes@publicgardens.org)



- 1) Job title
- 2) Name of organization you belong to
- 3) What kind of educator are you?
  - Teacher
  - Summer camp counselor
  - Home schooler
  - Public garden educator
  - Informal educator
  - Other (please describe)
- 4) What grade level do you teach?
  - Elementary (K-5)
  - Middle School (6-8)
  - High School (9-12)
  - Other (please describe)
- 5) Specify what subject area you teach:
  - Science
  - Math
  - Language Arts
  - Social Studies
  - Other (please describe)
- 6) How many students do you teach in a school year?



Help the Plant Heroes protect our forests  
by slowing the spread of pests and diseases!

[PLANTHEROES.ORG](http://PLANTHEROES.ORG)  
**BEGINNER  
ACTIVITY  
BOOK**

# RAPID 'ŌHI'A DEATH



Plant  
Protection  
Program

AMERICAN PUBLIC GARDENS ASSOCIATION

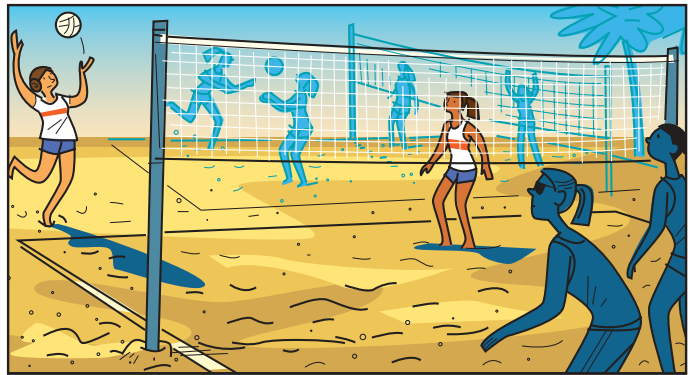
# Hit the brakes!

Slowing the spread of Rapid 'Ōhi'a Death...



Apani and the rest of the high school girls volleyball team are traveling to Hawai'i Island for a national tournament. They are looking forward to seeing volcanoes, hiking in the rainforest, snorkeling with tropical fish, and of course—playing LOTS of volleyball!

When the plane begins its descent, Apani watches an in-flight movie about the ecological and cultural importance of Hawai'i's 'ōhi'a lehua trees, and a disease that is killing them—**rapid 'ōhi'a death...**



After getting settled at the hotel, Apani and her friends jump right into practice—there are volleyball teams from all over the country!



Apani notices that there are several dead and dying 'ōhi'a trees in this section of the forest.



The tournament organizers planned a break mid-week so that all the teams could spend a day doing some volunteer work on the island. Apani and her friends sign up for trail restoration so they can see the tropical rainforest.

The Plant Heroes are brought to you by the American Public Gardens Association. This comic was developed with financial support from the USDA — Animal and Plant Health Inspection Service and reproduced with financial support from the USDA — Forest Service. Play games and learn how you can protect plants at [plantheroes.org](http://plantheroes.org).





# PLANT HEROES

The volunteers break for lunch. Afterwards, they start piling into their vans so they can drive to another site where they will continue working for the rest of the afternoon...



As one of her teammates climbs into the van ahead of her, Aponi notices that her shoes are covered in mud, and she has some 'ōhi'a branches tucked into the pockets of her backpack. She remembers from the video how important it is not to move soil or 'ōhi'a plants to avoid spreading the fungus that causes rapid 'ōhi'a death.

Aponi tells her teammates about the video, and about the dead 'ōhi'a trees she noticed when they walked along the trail.



Coach helps them use rubbing alcohol from their first aid kit to clean off all of their tools. They clean all the mud off their shoes and a local forest ranger takes care of the 'ōhi'a branches. **That was a close one!**

Aponi and the rest of the team spent the rest of the day installing water bars on a trail at another park. They return to the hotel and, after a good night's rest, win the rest of their volleyball matches! Taking 1st place in the tournament feels extra good knowing that they also had a chance to give back to the island, and they avoided spreading such a terrible disease into a new part of the rainforest.



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# PLANT HEROES



# Rapid 'Ōhi'a Death

Researchers are still figuring out the best way to stop the disease from spreading. One way we can all help is to leave any 'ōhi'a lehua plant parts where we find them. Soil should also not be moved around, since it can also carry the fungus.

Learn more at [plantheroes.org](http://plantheroes.org)



# PLANT HEROES



Name \_\_\_\_\_



Date \_\_\_\_\_

DISEASE  
WOOD  
HAWAI'I

FOREST  
SPREAD

BARK  
FUNGUS

PLANT  
TREE

U F U N G U S G Y T

W W H A W A I I H Q

L T W S N P L A N T

S P R E A D E E M I

S R G B A R K K Q D

D I S E A S E A D C

O X B O W L W O O D

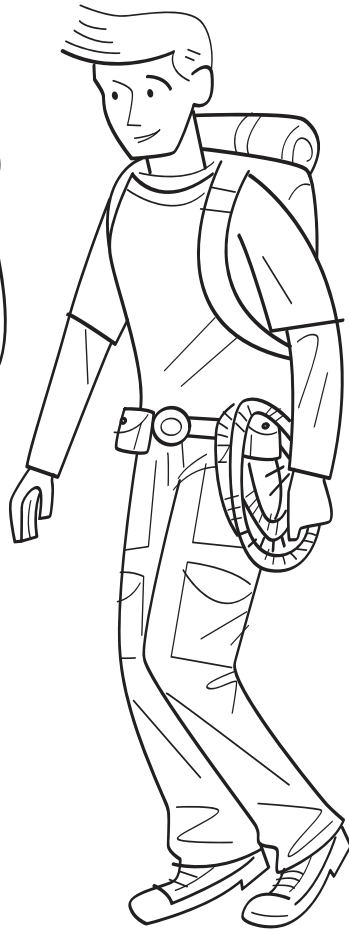
W G F O R E S T T S

O T R E E T Z E R E





# PLANT HEROES





Name \_\_\_\_\_

Date \_\_\_\_\_

Complete the maze and then find the words. The words can only be found along your maze path.

	GG	SE	CAB	HFD	PR	HR	XTC	NMP	MHV	IX	FORE	STR	MX	BGH	GWH	U																							
C				F									B			X																							
H				T									A			K																							
S				I									R			P																							
W				U									K			B																							
N		W	L	O	B	K	C	J	I	G	P	L	A	N	T	S	W		O	F	C	W	V	T		F		A											
		D									Y			X			U																						
		D									W			C			N																						
START		I									J			Q			G																						
		S									C			S			U																						
	P	E		Y						W				F			S																						
	F	A		R						B				S																									
	M	S		X						K				E																									
	H	E		Y						W				U																									
	S	H		P						U				J																									
	P		S	J	B	A	W	E			H	K	A	F	B	X	Y	P	P	V	U	K	Y	M	R	D	F	R	I	D		N							
	R										M																						Q						
	E										U																						Y						
	A										F																						Y						
	D										P																						Y						
	H	H	A	I	I	U	L	T	R	E	E	G	Y	E	H	C	U	X	B	S	A	K	K	G	R	H	F	C	K	S	B	K	M	K	Q	N	K	L	R

Find and circle these words:

- PLANT**
- SPREAD**
- BARK**
- DISEASE**
- FOREST**
- HAWAI'I**
- WOOD**
- TREE**
- FUNGUS**





# Plants

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plantheroes.org





# Plant Heroes Pledge

This Certifies That

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is an Official Member of the Plant Heroes Team and pledges to:

**Learn about the  
pests and diseases  
that affect the  
plants in my region**

**Be on the lookout  
for symptoms of  
pests and diseases  
on trees in my  
neighborhood**

**Report any suspicious  
findings to an adult  
who can notify the  
local extension agent**

**Refrain from  
moving firewood**

Awarded by the  
American Public  
Gardens Association







Join our team of Plant Heroes and learn about trees, forests, and the natural world around you!

**PLANTHEROES.ORG**

### You can be a Plant Hero!

Are you curious about plants and animals? Do you like asking questions about nature? Do you enjoy being outdoors and having fun, climbing trees, balancing on logs, or finding a new butterfly or beetle? If so, you are already on your way to becoming a Plant Hero! We invite you to join forces with Nate, Laura, Aponi, and Frankie to protect the plants and ecosystems we all love.

### How can you become a Plant Hero?

Join our team and go on a journey with Nate, Aponi, Laura, and Frankie. As a Plant Hero, you will learn to notice when plants are in trouble. You will also find out ways you can act quickly to help find solutions in your own neighborhood. Follow their adventures and learn how they help plants and ecosystems stay healthy.

**On the Plant Heroes website, you will find** materials to help you learn about plants, forest health, and ecosystem balance. The more you know, the more you can help protect plants and ecosystems in your own yard, neighborhood, and community!

**Plant Heroes strives to spark curiosity about nature and science in all children.** Our program provides hands-on, nature-based learning materials for educators to engage children in topics of plant health, ecosystem balance, and forest health. We also spotlight the amazing work our public gardens do in protecting the plants and ecosystems we all depend on through our website and printed materials. Visit [plantheroes.org](http://plantheroes.org) today to learn more!

**Plant Heroes is brought to you by the American Public Gardens Association**, founded in 1940. Over the last eight decades, the Association has supported the work of public gardens in North America and beyond. Our mission is to champion and advance public gardens as leaders, advocates, and innovators in the conservation and appreciation of plants. Our vision is "A world where public gardens are indispensable" as they provide botanic, conservation, community, education, and economic resources to their community.

The Association is committed to increasing the knowledge of public garden professionals throughout North America through information sharing, professional development, networking, public awareness, and research, so that they have the tools to effectively serve visitors and members.



**American  
Public Gardens  
Association**

[PublicGardens.org](http://PublicGardens.org)



This publication was developed with financial support from the US Forest Service and the USDA Animal and Plant Health Inspection Service.

