



PREVENT & PROTECT



**MOSQUITO CONTROL MESSAGES
FOR YOUR COMMUNITY**



INTRODUCING



PREVENT & PROTECT

MOSQUITO CONTROL MESSAGES FOR YOUR COMMUNITY

Prevent & Protect is a resource for Florida's local officials to effectively communicate about mosquito management to our state's citizens. The UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center), as part of a Florida Department of Health grant, created the Prevent & Protect resource to help local officials communicate to residents of Florida's cities and counties about the importance of mosquito control efforts and how residents can help reduce mosquito populations.

The **UF/IFAS PIE Center** conducts research and educates on how people form and act on opinions regarding complex agricultural and natural resources issues.

IN THIS GUIDE



Mosquitoes can negatively impact your community's health, economy and enjoyment of the outdoors. Learn how to communicate about these issues in this guide.

In this guide, you will learn how to use two toolkits designed to educate your community about mosquito control. Each toolkit has pre-made social media posts and graphics that are easy to use to inform the public about the importance of mosquito control. The **Mosquito Control Toolkit** is intended to educate the public on mosquito control and the negative impact mosquitoes can have in your community. There are four parts to the Prevent & Protect toolkit: personal responsibility, mosquito-borne illnesses, nuisance and economy, and application method. The **Emergency Response Toolkit** is designed to educate the public about mosquito control emergency response actions, primarily after a hurricane or flood and during a disease outbreak. Both toolkits include social media content with suggestions on when to publish each post, as well as instructions on how to download the components and customize each item to best fit your mosquito control educational efforts. The content in this guide was created with research from focus groups, a professional panel and academic publications.



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Toolkit Index

In this toolkit, you will find:

Social Media Posts: Pre-made graphics accompanied by text, ready for you to post to your social media pages. (pp. 6-7)

Infographics: Use colorful images and text to display information so readers can better understand mosquito control messages. (pp. 8-9)

Info-sheets: Use text to display information so readers can better understand mosquito control messages. (pp. 10-11)

Characters: Dr. Diaz and Brad are used in the campaign to show how mosquitoes impact health and how operators control populations. (pp. 12-15)

Key Recommendations: Recommendations for effective communication on mosquito control based on our research. (p.16)

Frequently Asked Questions: Answers to frequently asked questions regarding mosquito control. (p. 17)

Instructions: Instructions on how to download both toolkits and customize to add your organization's logo, if desired. (pp. 18-19)

MOSQUITO CONTROL

Week Summaries

Week One: Personal Responsibility

This week's messages and posts encourage the public to take preventive measures to protect themselves and their families from mosquito-borne diseases. **Goal:** Inform the public that they play a vital role in protecting themselves and their community from mosquito-borne diseases.

Week Two: Mosquito-Borne Illness

This week's messages and posts educate the public on the importance of combatting diseases transmitted by mosquitoes. **Goal:** Inform the public that mosquito control is necessary because of the threat of diseases transmitted by mosquitoes.

Week Three: Nuisance and Economy

This week's messages and posts inform the public on the negative effects mosquitoes have on Florida's economy and the public's ability to enjoy outdoor activities. Tourists are less likely to visit an area with nuisance mosquitoes, and even less likely to visit an area with known mosquito-borne illnesses. **Goal:** Inform the public that mosquitoes can have a negative impact on tourism, healthcare and the livestock industry in Florida, which all impact the welfare of Florida's residents and Florida's economy.

Week Four: Application Methods

This week's messages and posts explain the application methods used by mosquito control programs to control mosquito populations. Operators use a treatment method called integrated mosquito management (IMM) to treat mosquito populations. Operators use their understanding of mosquito biology to decide which step of IMM is appropriate for affected areas. **Goal:** Inform the public that mosquito control protects the public from disease outbreaks, reduces nuisance mosquitoes and protects Florida's economy.

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Social Media

The Mosquito Control Toolkit provides social media posts ready for you to publish to your organization's social media accounts. The posts are categorized into four weeks: personal responsibility, mosquito-borne diseases, nuisance and economy, and application methods. Each week has a variety of posts. Every post has a graphic paired with an accompanied text. People are more likely to read posts that contain graphics than posts without graphics.

Social media is a great way to reach a diverse audience. The content in this toolkit is formatted to be educational and understandable for the general public.

Visit piecenter.com/mosquito to view all social media content and graphics and to download your own.

“

Use the project's name “Prevent & Protect” in every post to unify branding.

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Social Media



Here is an example of a post from week three (nuisance and economy), educating the public on the relationship between mosquitoes and warm areas.



Here is an example of a post from week two (mosquito-borne diseases), testing the public on their knowledge of mosquito-borne diseases.

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Infographics & Rack Cards

The Mosquito Control Toolkit also contains several infographics that can be used to educate your audience about mosquito control. The topic of personal responsibility was chosen because our research determined that Floridians want to know what they can do to help protect themselves from mosquitoes. Aerial application was chosen as a topic because research showed that people are uninformed on the process, which can lead to public concern.

Infographics display important information alongside colorful images in order to catch the reader's eye and help them better understand what is trying to be communicated.

The infographics are provided in two size formats: 8.5 x 11 inches and 3.5 x 8.5 inches. These infographics can be used as resources for social media posts. The 8.5 x 11 inches infographic can be easily printed at home or in the office. The 3.5 x 8.5 inches infographic, as a rack card, can be used as an educational handout from your organization or agency. These would be great to distribute to homeowners.

You can download these infographics to customize the resources at piecenter.com/mosquito.

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Infographics & Rack Cards



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Info-sheets



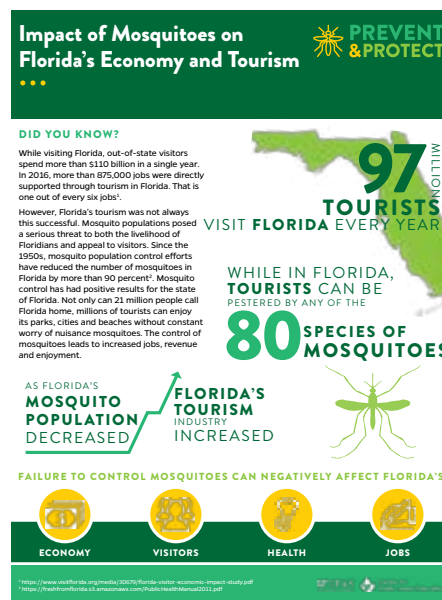
Two info-sheets are available for you to use, including one on environmental impacts and one on the economic impact of mosquitoes. Our research identified these topics as highly important to Floridians.

Similar to infographics, info-sheets also display important information that can be easily understood by the general public. Info-sheets can also be used in social media content or as material for educational programming.

Visit piecenter.com/mosquito for more information about the Mosquito Control Toolkit and to download the info-sheets.

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Info-sheets



The first info-sheet focuses on the impact of mosquitoes on Florida's economy and tourism.



The second info-sheet focuses on the impact of mosquito control on honey bees.



an important message from
DR. DIAZ



My name is Dr. Diaz and I am a healthcare provider in Miami. I care about all of my patients, and want my community to stay safe, especially from mosquito-borne diseases. There are many mosquito-borne diseases that can harm you and your family, including Zika, West Nile virus, Dengue fever, Yellow fever, Chikungunya, Western equine encephalitis and St. Louis encephalitis. I sometimes treat these diseases, and am sharing this knowledge because I care. Some diseases can display mild symptoms, while others can be deadly. That is why it is so important to protect you and your family from mosquito-borne diseases by applying EPA and FDACS approved insect repellent, and wearing long-sleeved shirts and long pants.

MOSQUITO CONTROL

Important Health Resources



Centers for Disease Control and Prevention

Twitter: @CDCgov

Facebook: @CDC

Phone: 1-800-232-4636



Florida Department of Health

Twitter: @HealthyFla

Facebook: @FLDepartmentofHealth

Phone: (850) 245-4444

Email: Health@flhealth.gov

<http://www.floridahealth.gov/diseases-and-conditions/mosquito-borne-diseases/index.html>



RESOURCES

Use resources from the Centers for Disease Control and Prevention and the Florida Department of Health to answer health-related questions you may receive while communicating about mosquito control. Additional resources are available at piecenter.com/mosquito.



an important message from
BRAD



My name is Brad and I am a mosquito control operator in your local mosquito control program. I survey our community for mosquitoes and help prevent emerging mosquito populations from harming your family. There are 61 mosquito control programs in Florida that locally control mosquito populations based on Integrated Mosquito Management, just like I do. Based on local environments and mosquito biology, mosquito control program operators use a combination of strategies to protect you and your community. The Florida Department of Agriculture and Consumer Services oversees all mosquito control programs. The state works with local areas to best protect each community in Florida. Together, we protect you and your family.

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Important Mosquito Resources



Florida Department of Agriculture and
Consumer Services:

Phone: (850) 617-7917

Email: MosquitoControlReports@

FreshFromFlorida.com

<https://www.freshfromflorida.com/>

Business-Services/Mosquito-Control



RESOURCES

Use resources from the Florida Department of Agriculture and Consumer Services to answer questions you may receive pertaining to mosquito control programs while communicating about mosquito control. Additional resources are available on piecenter.com/mosquito for further questions.

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Key Recommendations

Consistent Message: Whoever the public contacts about mosquito control questions needs to provide a consistent message. If this role is decentralized currently, we recommend to identify one or two people who can be the main information source about mosquito control efforts.

Local Media: Provide local reporters with a consistent message. Partner with them to get information out. To learn more about developing a media relations program, please visit http://edis.ifas.ufl.edu/topic_media_relations.

Treatment: If your county has a protocol of when to treat for mosquitoes, it is recommended that you consider sharing it with residents if they request it.

Message Points: Use piecenter.com/mosquito for resources on message content in the toolkit. There are also frequently asked questions answered on the next page.

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Frequently Asked Questions

These are questions you may encounter. Here are some messages that will be helpful to you. More information is provided at piecenter.com/mosquito/#resources

Is Naled safe?

When used according to regulations set by the United States EPA, Naled is expected to be safe for humans and pets. It is targeted toward flying mosquitoes and applied to the air in droplets mixed with water. Very little amount of the treatment reaches the ground because only 1-2 tablespoons are used per acre (length of a football field). It has been used effectively in Florida since 1959.

Does mosquito control harm bees?

While insecticides used on mosquitoes can kill bees outside of their hives, treatment that is applied before dawn or after dusk can reduce impact because bees are usually inside their hives. However, it is not always appropriate to treat before dawn or after dusk for certain mosquito species. According to the Centers for Disease Control and Prevention, studies show that honey production between hives in treated and untreated sites did not show significantly different quantities of honey over the course of a season. Beekeepers and concerned citizens should work with their local mosquito control program to determine when and where they treat for mosquitoes.

Why are you treating our community for mosquitoes?

Mosquitoes can transmit diseases, reduce tourism and negatively impact our economy. Operators use Integrated Mosquito Management (IMM) when treating our community for mosquitoes. They survey areas, remove breeding sites, use structural barriers, control mosquitoes at the larval stage (larvicide) and reduce the number of adult mosquitoes (adulticide). Treating adult mosquitoes is an important step of IMM, a process that protects you and your family. You can find more resources about mosquito control at piecenter.com/mosquito/#resources.

MOSQUITO CONTROL

Instructions

Follow these steps to download each item:

- 1) Go to piecenter.com/mosquito
- 2) It is recommended that you create a folder in your computer where each file can be downloaded to. This will help keep everything organized when you post on social media, but it is not necessary.
- 3) Use the download buttons on the right side of the webpage to download the desired material.
- 4) Save the file into the folder you created.

Follow these steps to publish a post on Facebook or Twitter:

- 1) Open your organization's Facebook account or Twitter account.
- 2) Create a new post. There is a text document for Twitter and Facebook. Copy and paste the text from word document into post text. Use the project's name **"Prevent & Protect"** when posting any resources from the Mosquito Control or Emergency Response toolkits, or discussing the project on your organization's social media accounts. You can edit the text to include your organization's name as well.
- 3) Click photo/video in Facebook post, or add image button for Twitter.
- 4) Select the desired toolkit graphic from your folder you saved it in. (Tip: If you did not save it to a specific folder when downloading, the file may be saved to your download file.)
- 5) Use this link to direct readers toward resources piecenter.com/mosquito/#resources

MOSQUITO CONTROL

Instructions

Follow these steps to customize info-sheets and infographics:

- 1) Go to piecenter.com/mosquito.
- 2) Use the download buttons on the right side of the webpage to download the desired material. Note: only the info-sheets and infographics are customizable.
- 3) The file will download as a PDF preview. If you have Adobe Acrobat and have not opened the program before, you must open the program before opening the document. Adobe Acrobat will ask you if you want all PDFs to open with Acrobat instead of Preview. Select yes. Now open the desired downloaded toolkit resource. You can download a free version of Adobe Acrobat Reader if you do not have it.
- 4) There is a blank image box on every customizable graphic. Click on the image box and select your organization's logo from your computer.
- 5) Click File and then click Save As. Select a folder where you want to save the material. Click Save.

Your organization's logo goes here.



EMERGENCY RESPONSE

Toolkit Summary

In this toolkit, you will find messages designed to educate the public on mosquito control emergency response actions, primarily after a natural disaster (hurricane, flooding) and during a disease outbreak. Mosquitoes can harm recovery efforts after natural disasters and make people sick during disease outbreaks. It is important for the public to understand the necessity of mosquito control during emergencies.



The icon to the right was created specifically for this toolkit, and should be used **ONLY** for emergency response posts.

This toolkit has pre-made social media posts with coordinated text ready for you to publish to your organization's social media accounts. Follow the instructions listed on page 22 when posting any Emergency Response material.



Tip: Always provide consistent messages to local media when responding to emergencies.

EMERGENCY RESPONSE

Social Media Summaries

Week One: Natural Disasters

This week's messages and posts educate the public on mosquito activity after a natural disaster. Following hurricane or heavy rain, there is an increase of floodwater mosquitoes because the excess water allows eggs laid in once dry soil to develop into adult mosquitoes. Floodwater mosquitoes typically do not carry diseases, but they can harm recovery efforts. Disease-carrying mosquitoes will re-populate after the natural disaster because of the excess standing water, and can be of great concern. **Goal:** Inform the public that it is important for them to drain water on their property and for mosquito control programs to control mosquito populations so there is not a disease outbreak.

Week Two: Disease Outbreak

This week's messages and posts inform the public on the negative effects disease outbreaks can have on public health and the economy. Aerial application quickly and efficiently reduces mosquito populations, and in turn can reduce disease outbreaks by eliminating potentially infected mosquitoes. The public can drain and cover areas on their property and wear protective clothing. **Goal:** Inform the public on the severity of a disease outbreak, and the steps they can take to help mosquito control programs reduce mosquito populations.

EMERGENCY RESPONSE

Instructions

Follow these steps to download each item:

- 1) Go to piecenter.com/mosquito
- 2) It is recommended that you create a folder in your computer where each file can be downloaded to. This will help keep everything organized when you post on social media, but it is not necessary.
- 3) Use the download buttons on the right side of the webpage to download the desired material.
- 4) Save the file into the folder you created.

Follow these steps to publish a post on Facebook or Twitter:

- 1) Open your organization's Facebook account or Twitter account.
- 2) Create a new post. There is a text document for Twitter and Facebook. Copy and paste the text from word document into post text. Use the project's name **"Prevent & Protect"** when posting any resources from the Mosquito Control or Emergency Response toolkits, or discussing the project on your organization's social media accounts. You can edit the text to include your organization's name as well.
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- 4) Select the desired toolkit graphic from your folder you saved it in. (Tip: If you did not save it to a specific folder when downloading, the file may be saved to your download file.)
- 5) Use this link to direct readers toward resources piecenter.com/mosquito/#resources

EMERGENCY RESPONSE

Frequently Asked Questions

These are questions you may encounter. Here are some messages that will be helpful to you. More information is provided at piecenter.com/mosquito/#resources

How do natural disasters affect mosquito populations?

Following a natural disaster that causes excess standing water (hurricane, flood or heavy rain), nuisance mosquito populations greatly increase. Floodwater mosquitoes lay their eggs in moist soil, which then encases the eggs in dry soil. The eggs hatch once they are wet again from floodwater. According to UF/IFAS, one female can potentially lay up to 200 eggs per batch up to a year in advance. At the same time, disease-carrying mosquitoes can repopulate because there are more places to lay eggs. Draining standing water helps prevent mosquitoes from developing. It is also important to wear insect repellent approved by the United States EPA and FDACS, long-sleeved shirts and long pants.

Why are you using planes? Why not use a different method?

Aerial application can target larger areas more efficiently than truck-mounted sprayers. It quickly reduces the number of mosquitoes in large areas, which reduces the number of potentially infected mosquitoes. The risk of a mosquito-borne disease outbreak is greatly decreased when mosquito populations are reduced. When applied according to United States EPA regulation, the treatment is expected to be safe for your family since a very small amount is applied. Only two tablespoons per acre or approximately the size of a football field are used. It is very important to contain any disease outbreaks to protect our community. You can find more resources about mosquito control at piecenter.com/mosquito/#resources.



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Center for
Public Issues
Education

PIECENTER.COM/MOSQUITO

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