

# Indoor IPM Integrated Pest Management Newsletter – January 2018



COLLEGE OF  
AGRICULTURE  
& LIFE SCIENCES  
COOPERATIVE EXTENSION

View this newsletter as a [PDF](#).  
Editor: Shujuan (Lucy) Li, [lisj@cals.arizona.edu](mailto:lisj@cals.arizona.edu)

## IPM for Microorganisms: Cleaning, Disinfecting, and Sanitizing

**Submitted by:** Dawn H. Gouge (public health entomologist), Natalie Brassill (water quality assistant in Extension, and Channah Rock (environmental microbiologist)

**2017-2018 Flu Season is Particularly Bad.** In many states the current flu season started earlier than usual, and the onset of flu season in November invariably led to increased transmission of infections during travel, and seasonal gatherings. Public health officials monitoring the number of flu related hospitalizations and outpatient visits have reported higher than normal case counts, and this could well indicate a severe flu season is in full swing. To date, widespread flu activity has been reported in 46 States according to the Centers for Disease Control and Prevention (CDC). In 26 states, flu activity has been classified as "high" (see weekly CDC influenza maps <https://www.cdc.gov/flu/weekly/usmap.htm>).



Influenza virus viewed using a microscope

Influenza is a highly contagious viral infection that causes the rapid onset of symptoms. The symptoms may start mildly, but often increase in severity rapidly, sometimes in a matter of hours. People who have the flu often feel some or all of these symptoms:

- Fever (not everyone with flu will have a fever)
- Chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or body aches
- Headaches
- Fatigue (tiredness)
- Some people may have vomiting and diarrhea, though this is more common in children than adults.

**Any person experiencing chest pain or breathing complications should seek immediate medical assistance.**

Pneumonia-like symptoms include serious congestion, chest pain, difficulty breathing, fever of 102°F or higher, and/or coughing that produces pus. Pneumonia in very young children or in adults older than 65 is cause for concern as the symptoms can become life-threatening, and may result in death if left untreated. Bronchitis, sinus and ear infections are other common complications resulting from the flu virus.

**The flu can also exacerbate (make worse) chronic health problems like asthma and chronic obstructive pulmonary disease (COPD).**

Most people recover completely within two weeks, but some develop complications, such as pneumonia. Influenza antiviral drugs may be prescribed to treat influenza infections. There are three different antiviral drugs that are recommended for use in the United States for the treatment of influenza: oseltamivir, peramivir and zanamivir.

Across North America there are a number of influenza virus (strains) causing illness, but the strain most commonly causing individuals to seek medical attention currently is **influenza A H3N2**. The H3N2 virus affects seniors and young children to a greater extent, and symptoms tend to be more severe compared to other influenza A or B strains.

In attempts to reduce the spread of the flu virus and other pathogens (microorganisms that cause disease) caregivers often reach for disinfectant wipes in homes, classrooms, and childcare centers, **but may not realize that disinfectant wipes are registered pesticides as they are designed to kill, or inactivate microbes**. Disinfectant products can be used in residential settings, schools, childcare facilities and medical centers safely and effectively, but there are a few things everyone should know:

1. **Always** follow [label](#) directions. The "Directions for Use" are specific, and the product may not work if you don't follow them. Most products require **application**, leaving to **stand** for a set amount of time, and **rinsing** completely with water to remove disinfectant residues.
2. Many disinfectants require the use of protective gloves when using.
3. Dirt, food debris, and litter can reduce the effectiveness of the disinfectant, and should be removed prior to the use of the disinfectant with a wet or dry cloth.
4. **Many products can be harmful when touched or inhaled**. Certain ingredients pose particular problems for asthmatics and individuals with compromised lung function. These products should be used in a well ventilated area or with the use of proper Personal Protective Equipment (PPE) such as a respirator.
5. Whether disinfectants are used in medical, residential settings, or elsewhere, they may not be used on surfaces that come in contact with food until residual disinfectant is removed. It is advised to review the label for use on food contact surfaces.

**It is inappropriate to ask children to clean desks and surfaces with disinfectant wipes.**

**Children are not legally allowed to handle disinfectant wipes and this is a Federal law and many labels clearly state “KEEP OUT OF REACH OF CHILDREN”**

So how can caregivers and facility managers maintain a healthy indoor environments, and limit the spread of the flu virus? **Flu viruses spread from person to person mainly by droplets made when people with flu cough, sneeze, or talk.** Less often, a person might get the flu by touching a contaminated surface or object then touching their own mouth, eyes, or nose. Most healthy adults may be able to infect other people beginning 1 day before symptoms develop and up to 7 days after becoming sick. Children may pass the virus for longer than 7 days. Symptoms start 1 to 4 days after the flu virus enters the body.



**This means that you are able to pass on the flu to someone else before you feel sick yourself**

To minimize flu:

- **Stay home when you are sick.** If possible, stay home from work, school, and errands when you are sick. You will help prevent others from catching your illness. Avoid close contact with people who are sick or who have chronic illnesses. Teachers and staff managers, please accommodate students and workers keeping up with schoolwork or work projects from home as much as possible.
- **If you are ill cover your nose and mouth** with a tissue when you cough, sneeze or talk. Throw the tissue away immediately after use and **wash your hands with soap and water**. If a tissue is not available, cover your mouth and nose with your sleeve, or the crook of your elbow. This has been named the “vampire sneeze”, and catches on well with young children. If you cover your mouth and nose with your hands, wash them immediately.



- **Wash your hands often with soap and water**, especially after you cough or sneeze. Give children the opportunity to wash their hands and encourage children to wash their hands effectively: 1) Rinse hands and arms up to the elbows, 2. Apply soap and lather for at least 20 seconds (sing the Happy Birthday song twice) cleaning hands, arms, and fingernails, 3. Dry with a paper towel. **NEVER have children use disinfectant wipes as hand sanitizer wipes, these are two very different things.**

- **Avoid touching your eyes, nose, or mouth.** Encourage children to avoid touching their own or others' faces.
- **Clean and disinfect surfaces or objects.** This is a job for adults, who can accurately use products correctly following all the steps necessary as provided on the label.
- Wearing surgical masks does help. Studies have shown that family members caring for dependents with flu reduced their risk of getting the virus by 70 % when they washed their hands often, and wore surgical masks.

When addressing pathogens in the built environment, select the cleaning product based on the need. While soapy water is sufficient to clean up a drink spill, it is not the best option for all jobs, for example, a disinfectant is required to clean wrestling mats to prevent the spread of infectious skin diseases like ringworm (a fungal infection of the skin). **Remember that disinfectants are registered pesticides and therefore the label must be followed in order to avoid health problems**, such as eye injuries, chemical burns, and respiratory illness, as well as to achieve effective disinfection.

## A Few Final Flu Facts

1) You cannot get the flu from the flu vaccine. It is just impossible. You may still get flu even if you are vaccinated, but it will not be because of the vaccination. Vaccines help to both reduce the severity of an infection as well as prevent infections in health adults and children.

2) The flu is not “just a bad cold”. The flu (influenza) virus can cause serious symptoms. In the United States, about 200,000 people are hospitalized and tens of thousands of people die each year because of the flu. Children are 2–3 times more likely to develop influenza than adults and more than 20,000 children under the age of five are hospitalized due to the flu each year. Influenza kills about 100 children under the age of five in the United States every year. The CDC recommends that children 6 months and older should get vaccinated against the flu every year.

3) It is very difficult to distinguish the flu virus from other viral or bacterial causes of respiratory illnesses on the basis of symptoms alone. But there are tests available from your doctor to diagnose a flu virus infection.

### Citations

National Pesticide Information Center <http://npic.orst.edu/health/readlabel.html>  
 Washington State University <https://schoolipm.wsu.edu/microorganisms/>

---

## Webinars and Events

Please join in for the [2018 All Bugs Good and Bad Webinar Series](#). This webinar series provides information about good and bad insects. Webinars are free and open to everyone. Webinars will be on the **first Friday of each month at 2 p.m. Eastern time.**

Upcoming webinars include:

1. Feral Hogs, Ecology and Control – February 2, 2018
2. Misidentified Pests in the Landscape – March 2, 2018
3. The Argentine Ants and Others – April 6, 2018

For more information about upcoming and past School IPM webinars:

<http://articles.extension.org/pages/74590/2018-all-bugs-good-and-bad-webinar-series>.

### **EPA Integrated Pest Management Webinars**

Upcoming IPM webinars include:

1. It Takes an Integrated Pest Management Village: IPM for a Healthier Home and Community – January 23, 2018
2. Why You Should Kiss and Tell About This: Kissing Bugs and Chagas Disease – February 13, 2018
3. Managing Mosquitoes Around the Home – March 6, 2018

For more information about upcoming and past IPM webinars: <https://www.epa.gov/managing-pests-schools/upcoming-integrated-pest-management-webinars>

For more information about the EPA Schools program, visit:

<http://www.epa.gov/schools/>

For more information about Community IPM, visit:

<http://www.extension.org/pages/23359/urban-integrated-pest-management-community-page>



COLLEGE OF AGRICULTURE  
AND LIFE SCIENCES

COOPERATIVE EXTENSION  
Arizona Pest Management Center

For more information about School IPM in Arizona, visit:

<http://cals.arizona.edu/apmc/westernschoolIPM.html>

**Shujuan (Lucy) Li**, Assistant in Extension - Public Health IPM. Email: [lisj@cals.arizona.edu](mailto:lisj@cals.arizona.edu)

**Dawn H. Gouge**, Public Health IPM Expert. Email: [dhgouge@cals.arizona.edu](mailto:dhgouge@cals.arizona.edu)

**Shaku Nair**, Assistant in Extension - Community IPM. Email: [nairs@email.arizona.edu](mailto:nairs@email.arizona.edu)

**Al Fournier**, IPM Assessment. Email: [fournier@cals.arizona.edu](mailto:fournier@cals.arizona.edu)

**Ursula Schuch**, Environmental Horticulture. Email: [ukschuch@ag.arizona.edu](mailto:ukschuch@ag.arizona.edu)

**Kai Umeda**, Extension Agent, Turf. Email: [kumeda@cals.arizona.edu](mailto:kumeda@cals.arizona.edu); <http://turf.arizona.edu>

**Dave Kopec**, Turf Specialist. Email: [dkopec@ag.arizona.edu](mailto:dkopec@ag.arizona.edu)

**Michael Wierda**, Assistant in Extension - Pesticide Safety Education. Email: [mwierda@email.arizona.edu](mailto:mwierda@email.arizona.edu)

To view all our previous newsletters, visit:

<https://cals.arizona.edu/apmc/public-health-IPM.html#newsletter>

<https://cals.arizona.edu/apmc/westernschoolIPM.html#newsletter>

## **Acknowledgements**

This material is based upon work that is supported in part by the National Institute of Food and Agriculture, U.S. Department of Agriculture (USDA NIFA), under award number 2014-70006-22488, which provides Extension IPM funding to University of Arizona. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture. Additional support is provided by the University of Arizona – Arizona Pest Management Center (APMC).



United States  
Department of  
Agriculture

National Institute  
of Food and  
Agriculture