

CIOS News

January 2025 | Des Moines, Iowa



Focus on Fusarium

Brian Johnson

Fusarium is a large genus of filamentous fungi widely distributed in soils around the globe. Not all species of Fusarium are pathogenic - in fact, non-pathogenic species can be used to prevent infection from pathogenic ones. Pathogenic Fusarium cause a wide variety of symptoms in food crops and ornamental plants making it one of the most important plant diseases worldwide. Panama disease, for example, is a fungicide resistant Fusarium wilt that threatens the existence of banana as a food crop.

Fusarium can enter into an endophytic state where they live part of their life cycle inside plant tissues which makes treatment of pathogenic strains challenging and provides the mechanism by which they damage their host plants. The

fungus mycelium enters the vascular system of the plant and the plant produces gums as a defense mechanism. The build up of gums and mycelium blocks water and nutrients from reaching plant tissues causing the plant to wilt - they appear to be dehydrated due to a lack of watering. As the disease progresses, cells die back forming sunken spots that coalesce into streaks that align along the plant's vessels, then the infected tissue will dry out and die back.

As Fusarium is a soil borne fungus, it spreads from the roots moving from the bottom to the top of the plant through rhizomes and stems. It can be spread through contaminated media, contaminated tools,

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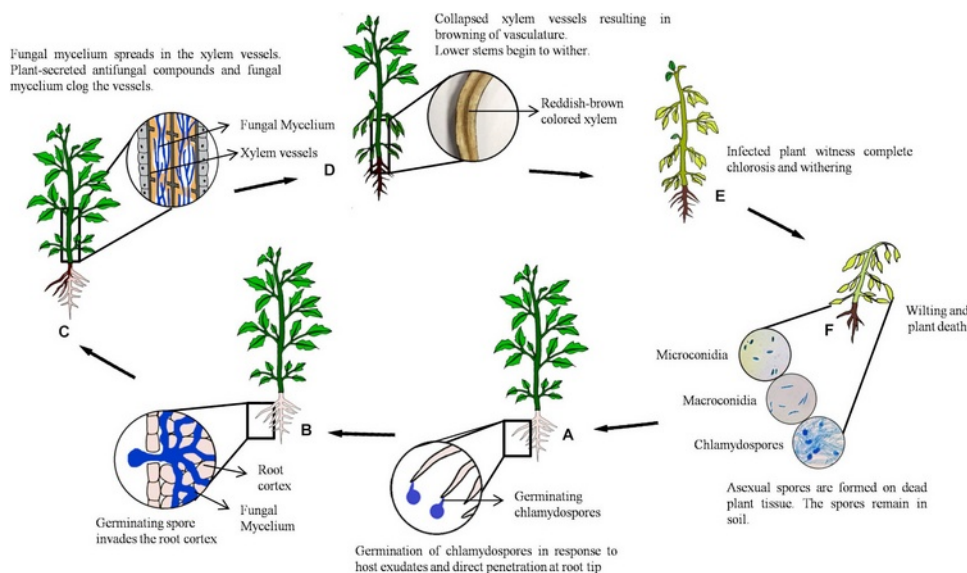


Figure 1: Fusarium life cycle. The fungus enters the plant through the roots as germinating soil-borne spores. The fungus mycelium enters the Xylem vessels. Gums and growing mycelium clog the vessels, starving the plant of nutrients and water, causing leaves to plant to wilt and die.

Next Meeting

Last Meeting Before

Orchid Fest 2025

Presentation from Mary

Gerritsen

2/2/2025 - 2pm

Union Park United
Methodist Church

2305 East 12th Street

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'Fusarium' continued

fungus gnats, and by water splashing from infected soil/media of the host plant onto neighboring plants.

In orchids, *Fusarium* is an important disease impacting commercial cultivation especially in nurseries that use production methods for fast production cycles. As plants are shipped and exchanged through the global orchid trade, the occurrence and spread of *Fusarium* has increased. This not only impacts commercial operations, but home and hobbyist growers as well.

Disease symptoms can be mitigated or slowed by good cultural practices and growing conditions, allowing plants with low-level infections to enter our collections as seemingly healthy plants, where latent infections will emerge when the plant experiences stress caused by shipping, handling, and changing growing conditions - often less than ideal conditions in the case of home growers.

Fusarium can be treated through the application of fungicides if the infection is detected and treated early. If the infection is in late stages and the plant is in severe decline, it is best to dispose of the entire plant including potting media and container. When employing fungicides use a broad-spectrum product indicated for use on ornamental/flowering plants. I've had good results using Propiconazole under the trade name Infuse applied at label indicated concentrations and application methods for ornamentals.

The best first line of defense against *Fusarium*, like all diseases, is following good phytosanitary practices. Clean your growing areas with sanitizing agents, provide good airflow, dispose of dead plant material promptly, re-pot with clean, fresh media and sanitized or new pots, use sterilized cutting tools, and allow plants to experience appropriate wet/dry hydration cycles.

I highly recommend the orchid pest and disease images on the St. Augustine Orchid Society website as a visual guide for the diagnosis of *Fusarium* in your own collection.



Figures 2, 3: *Fusarium* symptoms in banana, left, and vanda orchid, right. Plants show similar symptoms as the leaf die back is caused by the same mechanism – physical blockage of plant vessels. As the fungus progresses from the root zone up through the plant, tissues wilt progressively from bottom to top or along rhizomes from older growths into newer growth.

References

Fusarium species as pathogen on orchids
Shikha Srivastava, Chris Kadooka, Janice Y. Uchida

Microbiological Research Volume 207, March 2018,
Pages 188-195

Fusarium Wilt of Orchids
David E. Wedge and Wade H. Elmer
ICOGO Bulletin Volume 2, No. 3 2008

..
Panama disease
Wikipedia

Fusarium in Phalaenopsis
Sue Bottom
St. Augustine Orchid Society

Efficacy of various fungicides and nano-chemicals
against *Fusarium* wilt of Chrysanthemum
Alam Shamsher, Hasmi SK, MO Alam Aftab and Khan
RU
Journal of Pharmacognosy and Phytochemistry 2020;
9(3): 953-957

February Meeting

This is our last meeting before the Reiman Gardens Orchid Fest event February 7th - 9th. We'll be discussing our plans for the sales tables and information booth. We'll have sign up sheets for volunteer work shifts. If you have small cardboard boxes please bring them to the meeting. We need boxes sized to hold 2-4 plants in 4 inch pots.

We will also have a presentation from Mary Mary Gerritsen via Zoom. Mary will be presenting a talk on the Orchids of Madagascar at 3pm after the general club business meeting.

We'll also have plants on the raffle table, and as always, feel free to bring in blooming plants to share for the show and tell, or any non-blooming plants you'd like help with.

We look forward to seeing you there!

2/2/2025 - 2pm

Union Park United Methodist Church

2305 East 12th Street

From the Archives – Orchid Fest 2011

Clockwise from right: Vendor and display tables ready to go; Carson at the information booth with a nice Paph for a door prize drawing; Presentations on orchid potting and care.



January Meeting Brief

Ardie Strawman

The January meeting of the Central Iowa Orchid Society was called to order by President Brian Johnson. We have a visitor today - Rose. The Secretary's report was read and approved. The Treasurer was not here, but Brian gave the Treasurer's report. We have \$3231.24 in our checking account, plus the CD of \$5000. Dues for 2025 can be paid to Brian today. \$15/single \$25/ family. We have a user name and password to access AOS articles and info.

President's report - The December newsletter was emailed out. Members are encouraged to send articles and/or photos to Brian for the next newsletter.

Vice-President's report - Maria Fedorova will be contacting Stacia at Canoyer's Garden Center to see if they are interested in having us do an orchid sale/presentation this spring. She is also working on some programs for 2025 meetings.

New business - Reiman Gardens Orchid Fest - We will be recommending to Reiman's that they contact Natt's Orchids and Embroidery by Friday to be vendors this year. Maria will be ordering orchids from Fred Clarke. We need to check on bark, moss, and pots, as well as the availability of tables. Everyone is reminded to bring boxes to the next meeting.

Carson Whitlow will be doing the program for the Dallas County Master Gardeners in June. They would like the program to include an Intro, showing live plants, discussing tips, and having a drawing for a door prize. Carson will give them some of our trifold info folders.

Speaker's Day - We have the subjects for the speakers selected and Carson has made the program of the day's activities. He showed us the info sheet that he sends to other clubs and judges regarding the speakers and their topics. He also handed out slips with the 2025 meeting dates.

Ardie brought up that our Constitution states that we make donations in January to several organizations, including \$100 to each of these - AOS, Orchid Digest, Orchid Conservation Coalition, International Phalaenopsis Alliance, Slipper Alliance, and the Chicago Judging Center. A motion was made, seconded, and approved to make these donations for 2025. Ardie will contact Chriss Barck to get the checks written and sent.

Brian announced that we will be having an Eboard meeting at 1pm before the regular February meeting at 2pm.

The Omaha Orchid Show will be March 22-23, 2025.

We had several lovely show and tell plants brought by Rachel, Carol, and Jason, even though the temperature today was really cold!



Miniature Cattleya orchid and tillandsia mounted on cork and stone base by Jason Rauscher. The flower is SVO 10252 Slc. Cosmic Delite 'Cosmic Sparks' x Slc. Mem. Trudi Marsh 'Sun Flair')

'Meeting Brief' continued next page

Additional photos from the January meeting



Left to right: Blc Lawless Zauberflotte 'Palmer Apricot'; Phrag. Spot On 'Purple Fuzzy'; SVO 10252 (Slc. Cosmic Delite 'Cosmic Sparks' x Slc. Mem. Trudi Marsh 'Sun Flair')

President's Message



The author giving out some basic orchid care advice while demonstrating re-potting at our Canoyer Garden Center event last April. Simple interactions like this help fulfill our mandate as a non-profit society.

It may be cold here in central Iowa, but the show season is starting to warm up. In three weeks the CIOS will be vending orchids and providing orchid information at the Reiman Gardens Orchid Fest, we're planning on a display for the Greater Omaha Orchid Society show in March, we have two potential spring events at the the Canoyer Garden Center in April, and the Greater Des Moines Botanical Garden Spring Garden

Market in May.

As a non-profit organization, education and community engagement is an important part of what we do as a club, and it can take many forms. At the Reiman Garden Orchid Fest event we host an information booth where we provide growing advice and educational materials. Last year at our Canoyer Garden event we had informational displays created by club member Carol Lewnau, and we provided a free re-potting service which gave attendees a hands-on look at how to re-pot orchids and gave club members the opportunity to provide culture and care info.

If you are interested in volunteering to help out with any events please feel free to sign up. It's a great way to get to know your fellow club members and make connections with the community. And don't worry if you think you might not be knowledgeable enough to take a

shift at our information booth. We have a wide variety of books and magazines you can use to educate yourself, and by volunteering to work a shift alongside a more experienced club member you'll have the opportunity to learn and gain confidence with an mentor.

Also, if you have any ideas for education programs, materials, or displays don't hesitate to speak up or volunteer to head up a project as we plan and organize our upcoming events. Displays, posters, flyers, digital presentations, craft activities, and orchid themed art are just some ways we connect with orchid enthusiasts.

Here's looking forward to an exciting year filled with growth and opportunity.

Happy growing!
Brian Johnson, CIOS President

Upcoming Events

Orchid Society of Minnesota

"Winter Carnival 50th Anniversary Orchid Show"

January 25-26, 2025, St. Paul, MN

OSM Winter Carnival

Get ready for an amazing experience as the St. Paul Winter Carnival Orchid Show returns for its 50th year celebration! This dazzling event has evolved into the ultimate winter extravaganza for orchid enthusiasts across the Midwest, drawing in a staggering crowd of nearly 5,000 lovers of these exquisite blooms.

Immerse yourself in the Orchid Society of Minnesota's spectacular vision, meticulously curated by the Show Committee. Prepare to be whisked away from Minnesota's icy embrace to the lush embrace of tropical wonderlands, right within the heart of the conservatory.

We extend a warm invitation for you to bask in the awe-inspiring splendor of our showcased orchids. Delve into the wealth of orchid wisdom offered by our passionate members and seize the opportunity to acquire top-notch orchids from our exceptional vendors. Collaboratively, the Show Committee and the Marjorie McNeely Conservatory staff have worked together to make the 50th Anniversary something special.

Madison Orchid Growers Guild

"Orchid Quest"

February 1-2, 2025, Madison, WI

Orchid Quest Event Details

Orchid Growers Guild's "Orchid Quest" is being held February 1 - 2, 2025 at the Monona Terrace Community and Convention Center, 1 John Nolen Dr, Madison, WI 53703.

Reiman Gardens Orchid Fest

February 8-9, 2025, Ames, IA

Orchid Fest Event Page

This year's show will include live orchids and supplies from two local vendors: the Central Iowa Orchid Society and Natt's Orchids, as well as artwork and

embroidery from Friday's embroidery.

Free for ISU Students and Members. Price of Admission for all others. No registration required. Reiman Gardens 1407 University Blvd. Ames, IA

Wisconsin Orchid Society's "A Blooming Joy"

March 1-2, 2025, Racine, WI

Milaegers Garden Center Events

Along with the Wisconsin Orchid Society, Milaeger's will be hosting a breathtaking orchid festival that will feature an astonishing array of blooming orchids for you to enjoy. View, photograph and purchase plants from selected quality vendors. Experts on hand to answer questions! Milaeger's Garden Center, 4838 Douglas Ave, Racine, WI

Springfield Orchid Society's "A Galaxy of Orchids"

March 15-16, 2025, Springfield, MO

Milaegers Garden Center Events

The Springfield Orchid Society's "A Galaxy of Orchids" is being held March 15 - 16, 2025 at the Springfield Greene County Botanical Center, 2400 S. Scenic Ave, Springfield, MO 65807.

For more events see

'The Orchid Mall Announcements and Events'
orchidmall.com/announce.htm

Membership

The Central Iowa Orchid Society (CIOS) was organized in 1961. It is a nonprofit social club. Membership in the CIOS also includes membership in the Mid-America Orchid Congress.

Yearly dues are \$15 for an individual or \$25 for a family. **New members joining after July 1st are only required to pay one-half the annual membership fee - \$7 for an individual or \$12 for a family.** Membership can be renewed starting in November and dues become delinquent after the February meeting. Members will be dropped from the roll if dues have not been paid in six months.

Meetings are generally held on the first Sunday of every month at the Union Park Methodist Church, East 12th & Guthrie, Des Moines and begin at 2:00 pm.

Among the advantages of membership in CIOS are a large library of orchid literature, programs, displays and discussions on blooming plants, helpful advice, door prizes, and friendly socializing about orchids.

We invite you to attend a meeting and see for yourself the excitement that orchids generate. While there, inquire about membership or send in the below membership application to:

Central Iowa Orchid Society
c/o Chriss Barck, Treasurer
16402 J Ave.
Perry, IA 50220

CIOS Officers for 2025

President - Brian Johnson

Vice President - Maria Fedorova

Secretary - Ardie Strawman

Treasurer - Chriss Barck

E-Board Member (1st Year) - Jason Rauscher

E-Board Member (2nd Year) - Carol Lewnau

E-Board Member (3rd Year) - Jenny Howell

Immediate Past President - Roy Molina

American Orchid Society & Orchid Digest
Liaison - Maria Fedorova

Librarian - Chriss Barck

Webmaster - Carson Whitlow

General correspondence can be sent to:
Central Iowa Orchid Society
c/o Carson E. Whitlow
22957 280th Street
Adel, IA 50003

General email:
centraliowaorchidsociety@gmail.com

Central Iowa Orchid Society Membership Form

Please make checks payable to the Central Iowa Orchid Society. \$15 for single, \$25 for family membership

Name: _____ Telephone: _____

Address: _____ City: _____

State: _____ Zip Code: _____

Indicate Family or Single: _____ Email: _____

Amount Enclosed: \$ _____ or:

Credit Card #: _____ Exp. Date: MO ____ YR ____ Security code: _____