



Viticulture And Enology

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Scott Kohl – Program Director

Nicole Clark – Enology Instructor, Winemaker

Candice Fitch-Deitz – Viticulture Instructor, Vineyard Manager



Certificate and Course Revamp

1. Approval from HCC Curriculum Committee ✓
2. Approval from HCC Board of Trustees
3. Approval from Kansas Board of Regents

Viticulture and Enology Combined Certificates

Certificate A: 16 Credit Hours (6 CrHr Vit, 6 CrHr Eno, 4 CrHr Business)

Certificate B: 30 Credit Hours (12 CrHr Vit, 12 CrHr Eno, 6 CrHr Bus)

Every course from both certificates will be offered every academic year.



V&E Courses in new Certificates

- VIN111 Fundamentals of Variable Climate Viticulture
 - VIN135 Winter-Spring Viticulture
 - VIN211 Integrated Pest Management
 - VIN215 Summer-Fall Viticulture
 - ENO116 Introduction to Enology
 - ENO130 Intermediate Enology
 - ENO180 The Science of Winemaking
 - ENO266 Sensory Evaluation
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- When approved, these changes take effect Fall Semester 2023



Class Format Changes

Beginning January 2023:

- HCC V&E courses will be offered as Hybrid courses.
- Class sessions will be Tuesday and Wednesday nights, 6:30-8:30pm.

Students may attend in person in Wamego, KS
-OR-

Students may attend virtually via Zoom.

There is a required, in-person capstone day at the end of each course for hands-on learning of course content.



Spring 2023 Course Schedule:

- Jan 19 – Mar 22

- VIN111 Introduction to Viticulture

- Tuesday evenings, 6:30-8:30pm, Candice Fitch-Deitz teaching (1/24/23)

- ENO268 Wine and Must Analysis

- Wednesday evenings, 6:30-8:30pm, Nicole Clark teaching (1/25/23)

- Mar 23 – May 19

- VIN214 Spring Viticulture Tech

- Tuesday Evenings, 6:30-8:30pm, Candice Fitch-Deitz teaching (3/28/23)

- ENO116 Introduction to Enology

- Wednesday Evenings, 6:30-8:30pm, Nicole Clark teaching (3/29/23)



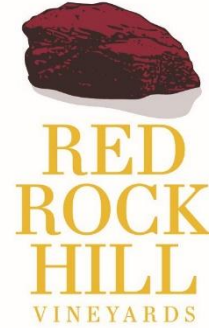


A brief bit about 456 Wineries

- 456 Wineries is a business incubator for wineries. The goal is to help entrepreneurs open a winery by assisting with licensing, renting space and equipment, and mentoring the winemakers.
- All revenue generated goes directly back into the HCC V&E Program to pay salaries, fund research efforts, and recuperate funds invested to create the facility.
- There is an application process to become a client at the incubator. We have spaces available. Contact HCC V&E staff if you're interested in joining us!



- Bodine Wine Company and Red Rock Vineyards



- Zydeco Meadery and Hiatus Wine Company



- Prairie Ridge Vineyards and Valley Trails Winery in Fall 2023
- We have spaces available! Contact HCC V&E staff for more information.



2022 Most Common Questions

- Mid-season Black rot
- Herbicide drift
- Petiole sampling
- Japanese beetles
- Disease identification
- Vine decline
- Vertebrate control
 - Birds, deer, raccoons, turkeys
- Pesticides
- Where to find vineyard and winery supplies
- Succession plan
- Selling fruit
- What grape cultivars should I plant?



May 14



May 27







2022 Happenings: Texas High Plains



2022 Happenings: Marketing Workshop

Cristin Hosmer

Wine Consultant

Instructor: Michigan State University &
VESTA

Grape & wine marketing

Tasting room practices

Social media strategies



2022 Happenings: Barrel/Tannin Management

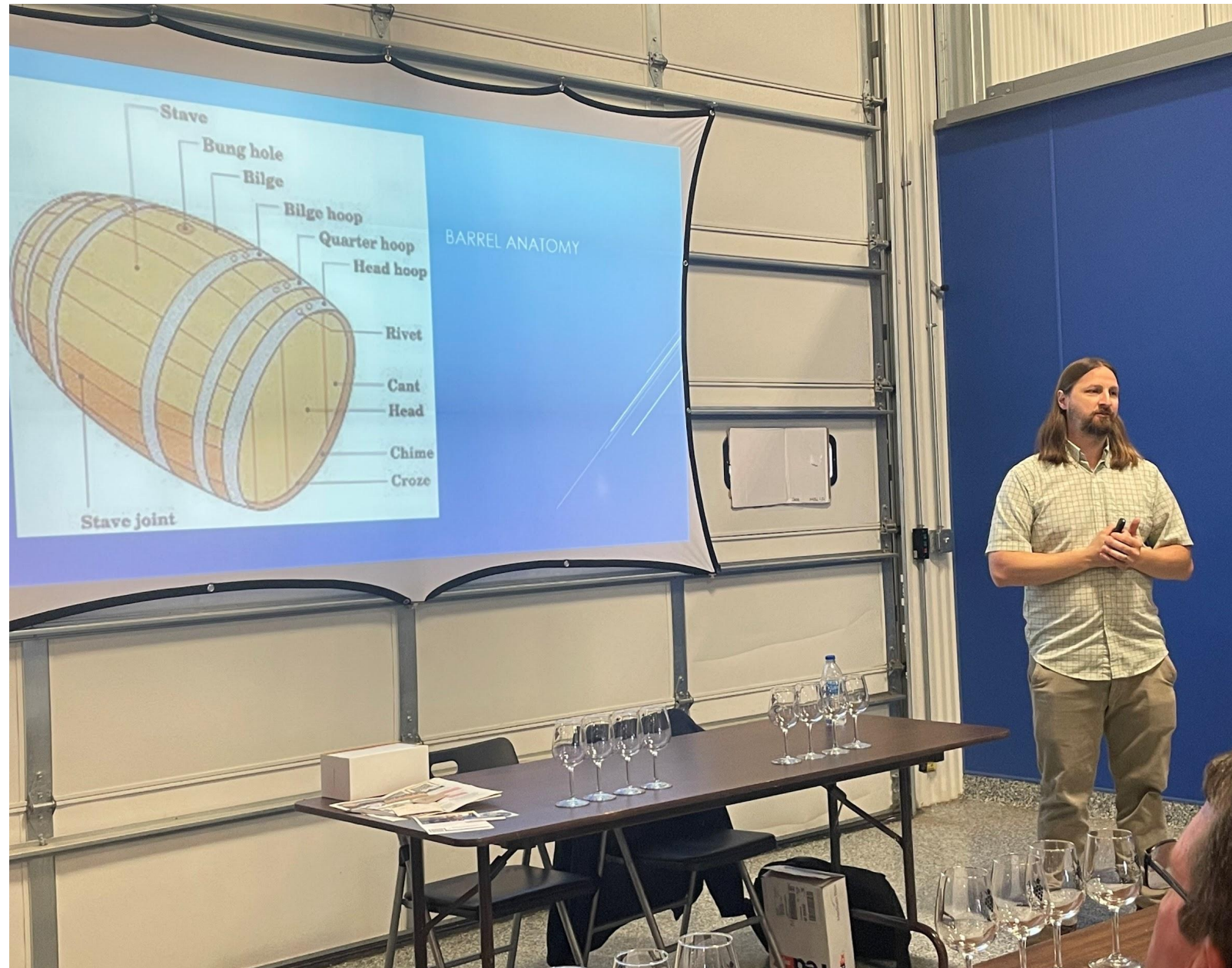
Brian Hosmer

Winemaker: Chateau Chantal

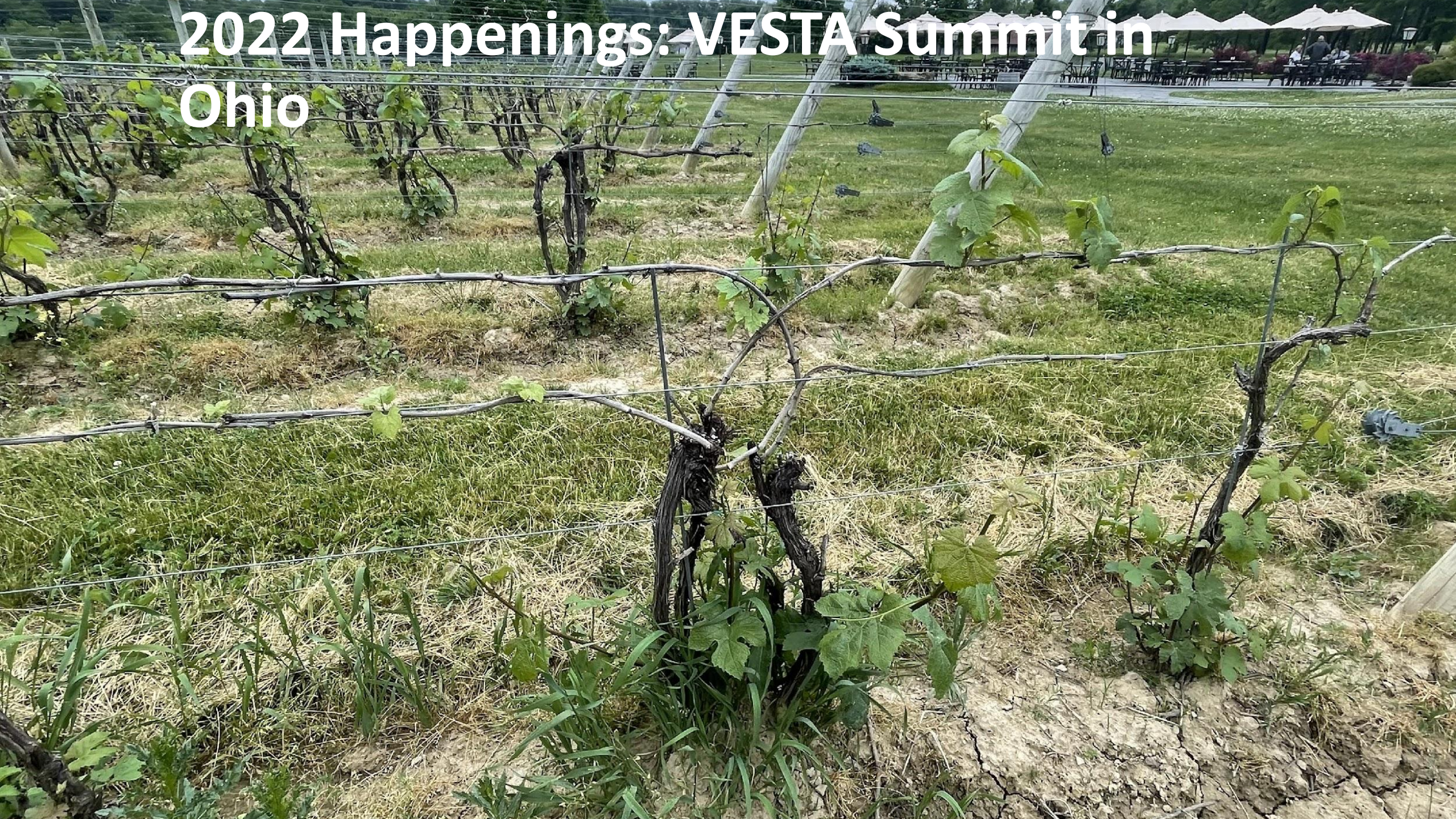
Oak and Seed Tannin

Pre and Post-fermentation additions

Tasting with various tannins



2022 Happenings: VESTA Summit in Ohio





2022 Happenings: Grafting Workshop led by Ed Swanson





2022 Happenings: Field Day at Bobwhite Vines with Allen & Cindy Roberston



2022 Happenings: Wine Chemistry Workshop

Dr. Barry Gump

Professor: Beverage Management at
Florida International University

Emeritus Professor: California State
University, Fresno – Chemistry &
Enology

Instructor: VESTA

Juice and wine analysis



2022 Happenings: NE-2220 Multi-State Coordinated Evaluation of Grape Cultivars and Clones

- **Participants:**

- Colorado State University
- Highland Community College
- Iowa State University
- Montana State University
- North Dakota State
- Ohio State University
- Pennsylvania State
- Rutgers University
- South Dakota State
- University of Maryland
- University of Massachusetts
- University of Minnesota
- University of Nebraska
- University of Vermont

- **Objectives**

- Comprehensive evaluation of grapevine cultivars and clones for viticultural, pest susceptibility and fruit and juice quality characteristics, including enological characteristics and local adaptation for sustainable production.
- Conduct initial screening evaluations of promising emerging cultivars and advanced breeding lines (pre-commercial) to determine suitability for regional adaptation of viticulture and wine quality attributes.
- Explore new germplasm resources including disease resistant cultivars being released in Europe, plant introductions including Asian accessions, and less-known cultivars that may have economic potential for the US grape industry.

NE-2220

- Milestones

- Several cultivars identified with superior fall bud cold-hardiness
- 2 new cultivars sent for patents from North Dakota State Un.
- Itasca released by University of Minnesota
- Clarion released by University of Minnesota
- 2 loose clustered Vignoles cultivars are being trialed

- HCC Role in NE-2220

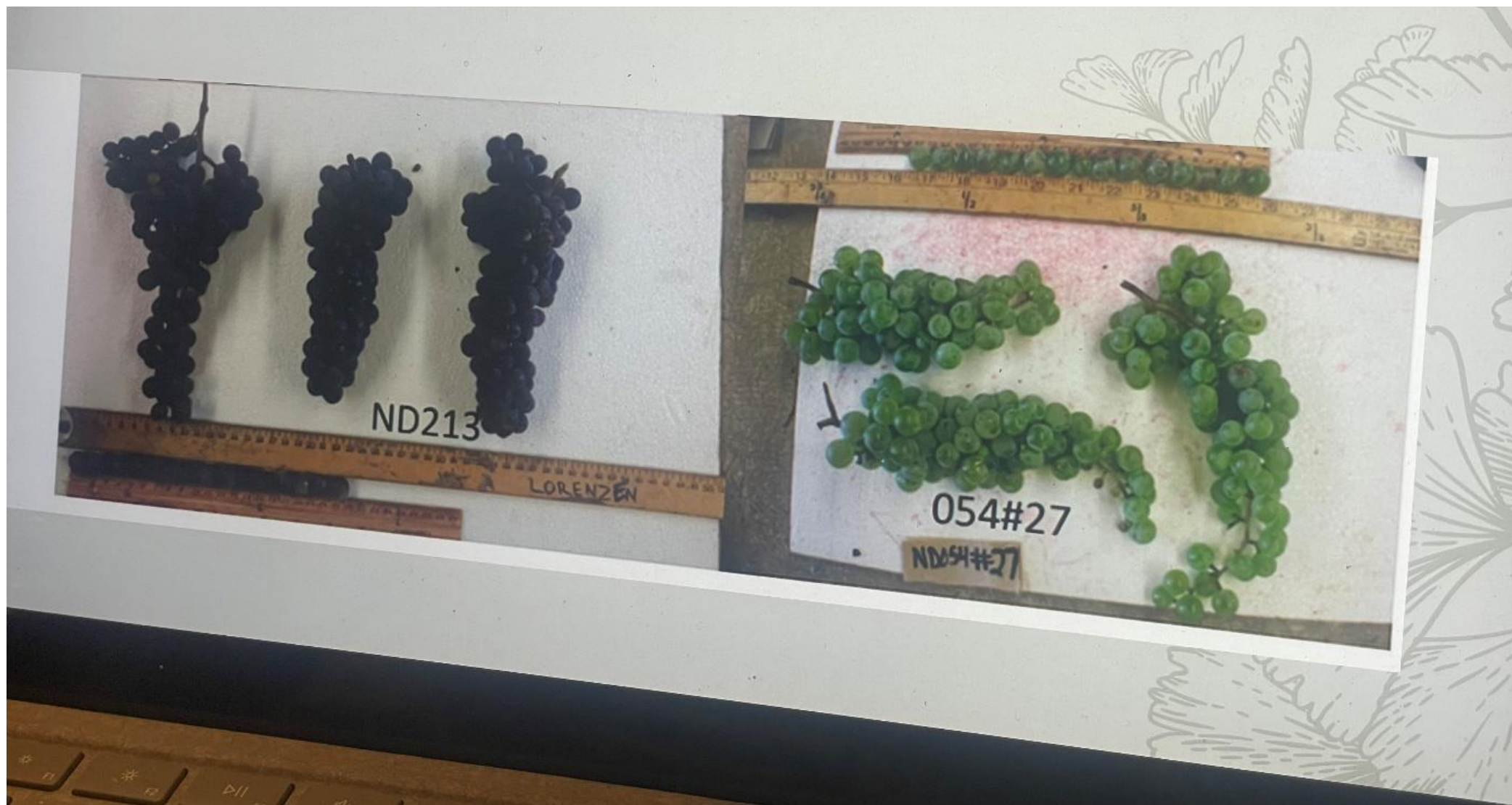
- Trial grape cultivars
- Collect vine data
 - Phenology, survival, negative impacts on survival, production, grape quality
- Collect wine data
 - Brix, pH, TA, YAN, sensory, potential uses

NE-2220

Research

- ~90 cultivars being tested
- Cultivars that have early fall acclimation
- Cultivars resistant to downy/powdery mildew
- Plant growth regulators to decrease vigor while increasing tannin content of grapes
- Cold protection projects
 - Geotextile, low tunnels, high tunnels
- Bird control - lasers to control migratory birds
- Viruses
- Early ripening (110-130 days)
- Herbicide drift
- Bud cold hardiness
- Rootstock crosses
- Drones for pesticide application
- Smart sprayers
- Biodegradable plastic from prunings

2022 Happenings: NE-2220





Clarion aka MN1220

VB 86-4 x Frontenac

			Juice		Wine	
	Cluster wt	SS	TA	pH	TA	pH
2018	126.83	24	7.11	3.21	7.75	3.3
2019	96	24.5	8.36	3.16		

Notes: harvest 9/17/18; 10/9/19

Has been extensively tested, but is marginally hardy at UMN.

Nursery in Janesville, MN produces successfully (1 hr south)

Available at CPCNW in Prosser: Double A Vineyards,
Northeastern Vine Supply, and Winterhaven Nursery

RV2
Summer 2021

Itasca, Frontenac blanc, Verona,
Clarion, Mars, Lakemont,
Vanessa & Trial cultivars



RV2

Summer 2022

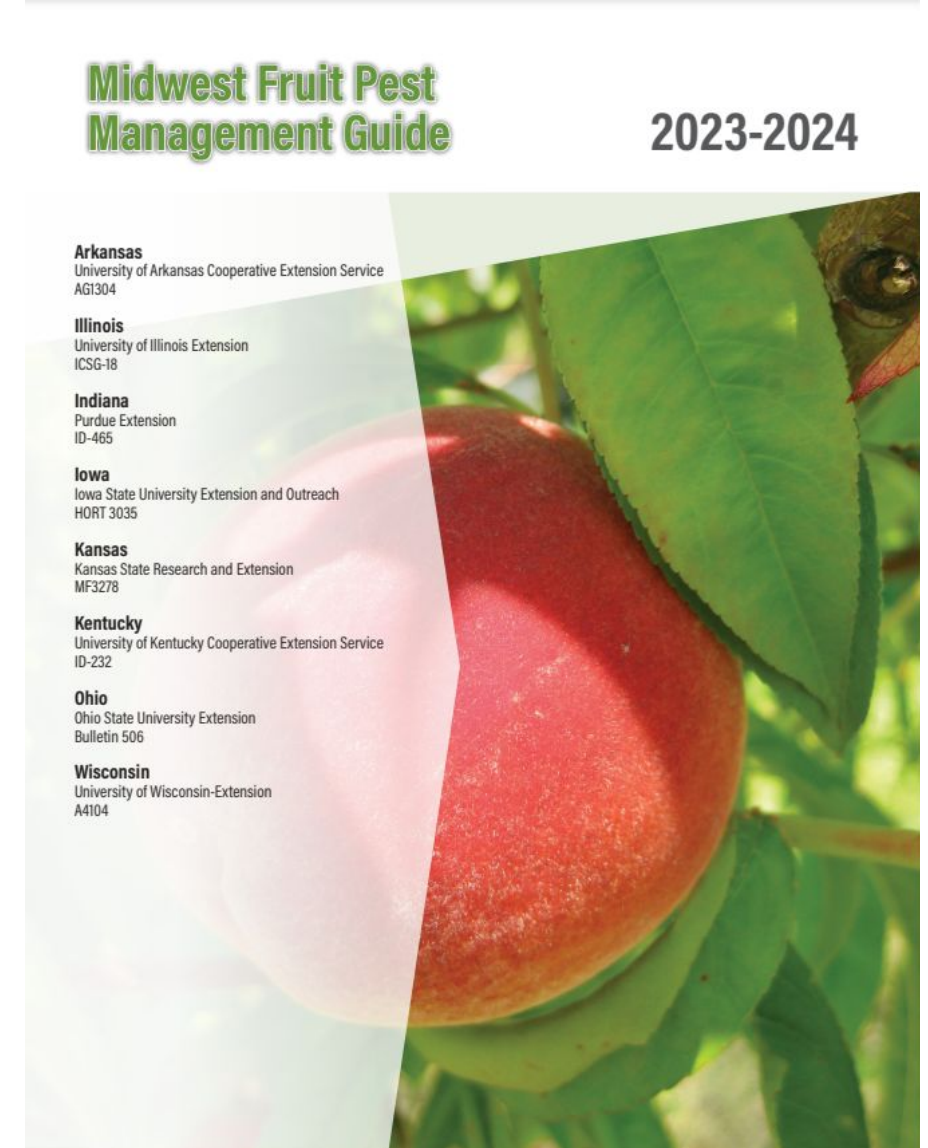


Opportunity for You to Get Involved

- Looking for growers within 1 hour of the I-29 corridor
- Cultivars:
 - Marquette
 - Itasca
 - Brianna
 - Frontenac
 - Chambourcin
 - Chardonel
- 2024 – will collect 25 leaves & clusters from cultivars at harvest

Resources

- Grapes
 - Pages 154-189
- Herbicide recommendations
 - Pages 261-264
- Generic pesticides
 - Pages 278-284



ATE Grant Proposal

Highland Community College

Viticulture and Enology



ATE & NSF



- ATE: Advanced Technical Education program
 - Funded through National Science Foundation (NSF)
 - ATE's central goals:
 - Producing more qualified science and engineering technicians to meet workforce demands
 - Improving the technical skills and the general science, technology, engineering, and mathematics (STEM) preparation of these technicians and the educators who prepare them
 - Graduates from these programs should have measurable impact on local workforce
 - Diversity of entry-level workforce: training for veterans, those with disabilities, etc.



Purpose & Scope of Grant

- Supports education of technicians for high-technology fields
- Involves partnerships between academic institutions (which include grades 7-12 and institutions of higher education), industry, and economic development agencies
- Supports curriculum development, professional development of faculty, career pathways, and other activities
- Encourages proposals that support the recruitment, retention, and completion (certificate, degree, program) of groups historically underrepresented in STEM in technician education programs
- Estimated number of awards: 45-80
- Estimated funding available: \$69 million



Mentor-Connect Program

- A cost-free service to help two-year college STEM faculty prepare competitive grant proposals for submission to the NSF ATE Program.
- Provides guidance through the NSF funding process and advice about project start-up.
- Participants learn strategies for success as well as how to avoid mistakes.
- 70% chance of project being funded



We are here to help you!

We want to hear from you!



Areas we have identified

- Desired project outcomes
 - Increased skilled workforce
 - Increased student enrollment
 - Increased industry knowledge and implementation of new and emerging technologies
 - Increased grape and wine industry participation and collaboration
 - Pathway for vineyard and winery legacy transitions
 - Awareness within secondary and higher education institutions of viticulture and enology career opportunities
- Target workforce
 - Vineyard, winery, production technicians
 - Tasting room, sales, marketing personnel
 - Experience level: entry and intermediate



Implementation

- New equipment for both vineyard and winery
 - Training workshops
- Restructure and modify courses
- Establish a Diversity & Inclusion committee
- Establish new partnerships and strengthen old partnerships
 - Wineries, restaurants, wine shops, tractor dealers, chemical/fertilizer dealers, educational entities, other associations on a statewide/regional/national basis
- Faculty training



How You Can Be Involved

- Complete the Survey
 - Paper
 - Electronically
- Become a Collaborator
 - Include your name, phone number, and email address
 - Receive communications about the grant process
 - Provide feedback



Thank You

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highlandcc.edu/pages/grapes

456wineries.com

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