

U.P. Ag Connections Newsletter

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Get Ready for the Elimination of Over-the-Counter Microbial Drugs

By Frank Wardynski and Phil Durst, MSUE

Livestock producers will not be able to purchase antibiotics without a prescription after June of 2023. They will need a Veterinarian Client Patient Relationship to get a prescription.

The United States Food and Drug Administration, Center for Veterinarian Medicine (CVM) has issued Guidance for Industry (GFI) #263. In June of 2023, livestock producers will no longer be able to purchase "medically important" antimicrobials over the counter. Medically important antimicrobials are those that are used in human medicine as well as veterinary medicine. Penicillin and oxytetracycline are medically important antimicrobials that are commonly purchased over the counter at local farm stores or on-line from veterinarian supply stores without needing a prescription from a veterinarian.

Like the requirement for cattle producers to have a valid Veterinary-Client-Patient-Relationship (VCPR) to get a Veterinarian Feed Directive (VFD) from a veterinarian, this new directive also requires a VCPR to get a prescription for drugs that you currently pick up at the farm supply or order online.

A VCPR is a formal agreement between the veterinarian and a cattle producer (client) and meets the following requirements.

- 1. A veterinarian has <u>assumed the responsibility</u> for making medical judgments regarding the health of (an) animal(s) and the <u>need for medical treatment</u>;
- 2. Client (the owner of the animal or animals or other caretaker) has <u>agreed to follow the</u> <u>instructions</u> of the veterinarian;
- 3. There is <u>sufficient knowledge</u> of the animal(s) by the veterinarian to <u>initiate at least a</u> <u>general or preliminary diagnosis</u> of the medical condition of the animal(s); and
- 4. The practicing veterinarian is <u>readily available for follow-up</u> in case of <u>adverse reactions</u> or <u>failure of the regimen of therapy</u>;
- 5. Such a relationship can exist only when the veterinarian has <u>recently seen</u> and is <u>personally acquainted</u> with the keeping and care of the animal(s) by virtue of examination of the animal(s), and/or by <u>appropriate and timely visits to the premises</u> where the animal(s) are kept.

Back in 2017 as the VFD rules were being implemented, many livestock producers did not have a VCPR in place, and consequently, were not able to get a VFD. As producers began calling local veterinarians to establish VCPRs, they quickly found it difficult to find vet services to accommodate all the requests. The situation with veterinarians serving food animal producers has not improved and is especially limiting in some rural areas. That won't be an excuse.

Livestock producers should seek veterinarian services as soon as possible to develop a VCPR. There are many livestock producers that use antibiotics at a minimal level. Consequently, they have not had need of the VCPR. That is about to change, and producers wanting to develop a VCPR should start seeking a cooperating veterinarian immediately.

2022 Vegetable Variety Trial Reports

Seed to Kitchen Collaborative Dr. James DeDecker and Sarah Hayward https://seedtokitchen.horticulture.wisc.edu/ https://www.canr.msu.edu/uprc/research

Introduction

In 2022, the MSU Upper Peninsula Research and Extension Center (UPREC) received funding from MSU Project GREEEN to address the limitations of traditional vegetable variety research and outreach by implementing the <u>Seed to Kitchen</u> <u>Collaborative</u> project in Michigan. The Seed to Kitchen Collaborative, led by Dr. Julie Dawson at the University of Wisconsin-Madison, brings together vegetable breeders, seed companies, researchers, organic vegetable growers and professional chefs to evaluate the productivity and quality of elite vegetable varieties in organic research station and on-farm trials. This year, the North Farm at UPREC grew 31 different varieties of five vegetables in replicated variety trials including winter squash, cantaloupe, carrot, broccoli, and tomato. All trials used conventional rotary tillage and USDA organic production practices on land certified as organic by MOSA. Temperature and precipitation were near normal at Chatham in 2022. All trials, except carrots, were exposed to moderate hail damage on July 1st. Independent Michigan and Wisconsin farmers also grew subsets of these vegetables and collected observations on their farm to capture the practitioner's point of view.

Organic growers face unique challenges related to soil fertility, pest management, etc., which provide a special context for vegetable variety testing. Furthermore, customers buying local organic produce at a farmers market, the local food co-op, or for use in a restaurant expect that the vegetables they buy will not only be plentiful and beautiful, but also tasty. That is why Seed to Kitchen Collaborative collects sensory (tasting) data post-harvest in addition to yield and quality data in the field. This year, we recruited nine local chefs, nutrition educators, farmers and their crews to participate in Seed to Kitchen Collaborative sensory evaluation. Their expert palates provided valuable feedback on the flavor, texture and desirability of our many vegetable varieties.

The sensory process started at the North Farm with harvesting, washing and packing the produce for tasters. The North Farm is certified organic and GAP certified annually to ensure the highest standards for food safety are consistently maintained. At the time of packing, individual vegetables were labeled with an alpha-numeric code so as to not bias tasters who may be familiar with certain varieties/variety names. Tasting boxes were then delivered to local tasters on Fridays. When tasters received a box, they scanned a QR code inside to access the tasting survey, tasted the produce, and entered their responses online. The sensory data was then summarized and reported alongside yield and quality info generated on the farm. Here we report 'appearance', 'overall flavor' and 'willingness to purchase' sensory data. Additional sensory data is available upon request from the authors.

A big "Thank You!" to all of the people and organizations that made our 2022 trials possible, including MSU Project GREEEN, the Dr. Julie Dawson lab at UW-Madison, Sarah DeGraff, participating seed companies and breeders, Andy Bahrman, Marleigh Sherbinow, Cole Ferguson, Marquette Food Co-op, NMU Dining Services, Border Grill, Yoop Coop, Iron Bay Restaurant, Delft Bistro, Northwoods Test Kitchen at Barrel + Beam, MARESA, Teaching Family Homes, and others!

In this issue we will report the Winter Squash Varieties

Management

In 2022, five Kabocha (*C. maxima*) winter squash varieties were trialed at the MSU Upper Peninsula Research and Extension Center in Chatham, MI. Squash was seeded in the greenhouse May 21 into 1.5" inch soil blocks using Morgan Composting Dairy Doo Seed Starter 101 media. Plants were then potted-up to 4 inch plastic pots on May 24, and transplanted into the field June 8. Plots 3 ft wide x 12 ft long were laid out on raised beds in a RCBD design with four replications. Fertility was applied prior to planting and consisted of 13-0-0 feather meal applied at 800 lbs/ac (0.018 lbs/ft²). Plants were spaced 2 ft. apart in-row, with 1 row per bed and 9 ft between beds. Irrigation was provided as needed via a single line of drip tape. To control cucumber beetles, Surround (kaolin clay) was applied once during the growing season on July 6. Weeds were controlled by black plastic mulch, crimson clover and buckwheat between beds, mowing and hand weeding. Squash was harvested September 15.

Field Traits

Marketable Count, Marketable Weight (lbs), Unmarketable Count, and Proportion Unmarketable were measured. Unmarketable Weight (lbs) was estimated using Unmarketable Count and average Marketable Weight. Harvest was completed in a single day at the end of the season once vines had begun to senesce. Fruits were weighed and graded the day of harvest. Analysis was conducted at the per plant level. 2

Quality Evaluation

Sensory evaluation was completed by chefs, food retailers and nutrition educators in Marquette, MI. Varieties were packed with individual alphanumeric codes. Boxes were delivered to tasters, including instructions for evaluation and a link to a Qualtrics survey where data was entered. Squashes were baked at 350 degrees F for 30 minutes prior to tasting. Flavor intensity and complexity were rated on a scale of 1 (low) to 5 (high). Appearance, texture, and overall flavor were rated from 1 (poor) to 5 (excellent). The likelihood that they would buy it for their restaurant (1=no way, 5=yes, definitely) and perceived ease of preparation (1=difficult, 5 = easy) were also rated.

Results

Data were analyzed using ANOVA and Tukey's HSD test in the Agricolae package for R at alpha = 0.05. Plants were exposed to moderate hail damage on July 1. Significant differences between varieties were observed in total weight, marketable count, marketable weight, appearance and willingness to purchase. Rodent damage and small size were the primary reasons fruits were deemed unmarketable. Bluebell, JWS 16-42-52, Winter Blush and Winter Sweet yielded especially well. Bluebell, JWS 16-42-52 and Winter Sweet showed above-average flavor and marketability. Additional data on these and other squash varieties can be found at Seedlinked.com.

Varieties tested

and the			<u>Treatment #</u>	<u>Breeder</u>	<u>Variety</u>	<u>Market Class</u>	<u>Color</u>
	(april)	NA	1	NA	Bluebell	Kabocha	Slate blue
1	2	3	2	Johnny's	JWS 16-42-52	Kabocha	Orange
			3	Johnny's	Sweet Jade	Kabocha	Dark green
MAR S	COLOR AND		4	Johnny's	Winter Blush	Kabocha	Pale orange
M	man destroy		5	Earthwork	Winter Sweet	Kabocha	Slate blue
4	5						

Winter Squash Performance at Chatham, MI (field)						
(* in	(* indicates varieties statistically similar to the "best" variety in each category shown in BOLD)					
Variety	Total Weight (lbs/plant)	Marketable Count (#/plant)	Marketable Weight (lbs/plant)	Appearance (1-5)	Overall Flavor (1-5)	Willingness to Purchase (1-5)
Bluebell	16.87	2.38	11.79*	4.69	4.00	4.06*
JWS 16-42- 52	14.76*	4.04*	11.54*	4.31*	3.38*	3.50*
Sweet Jade	10.67	5.25	7.76	4.25*	3.88*	3.19
Winter Blush	14.68*	3.12	12.22	4.00	3.38*	3.13
Winter Sweet	13.86*	2.54	11.16*	4.44*	4.00	4.27
Average	14.17	3.47	10.89	4.34	3.73	3.62

2023 Growing UP Agricultural Association Annual Meeting

Spring in the UP? Hopefully, by the time you read this, there will be hints of spring in the air. We do a great deal of school tours here at the U.P. Research and Extension Center in Chatham. Whenever I talk with a group of young individuals, I like to tell them: "Spring is a time of new beginnings!" Almost all wildlife give birth in the spring, calves and lambs can be seen bouncing around in the fields, robins are in the front yard, lawns and roadsides are green and everything looks freshly mowed! It is the beginning of a new cropping season when we can sow seeds and look forward to the harvest in the fall. Spring is a great time of the year, and yes, it will arrive in the UP eventually!

The Growing UP Ag Association (GUPAA) will be conducting their Annual Meeting on Tuesday, April 18, Room 421, Besse Health and Technology Building at Bay College in Escanaba. This is a new location for the meeting and the building is just opposite and to the west of the Heirman Center. You can park in the same lot as always, just look to your left as you're walking up the sidewalk. Registration for the meeting will begin at 10:00 ET with the annual business meeting starting at 10:30 to discuss previous activities and future agricultural concerns relating to the UP. Registration for the meeting is \$10 which includes annual GUPAA membership dues. A box lunch will be provided at noon for \$15/person. Please call (906)439-5114 to register ahead of time.

Following lunch, there will be two virtual presentations during the afternoon session. Dr. Jeannine Schweihofer, associate director of the MSU Extension Agriculture and Agribusiness institute, will discuss what it takes to become a USDA inspected slaughter facility. Dr. Jeff Andresen, MSU professor and State Climatologist for Michigan, will be discussing climate in the UP and how it relates to agriculture.

The Growing UP Agricultural Association was formed to help find answers to the many concerns, problems and opportunities of UP agriculture. Please consider attending this year's annual meeting and provide your voice in support of agriculture in Michigan's beautiful Upper Peninsula!

GUPAA Research Priorities

The Growing U.P. Agricultural Association strives to provide direction and support collaborative efforts to share resources through the agriculture industry in the Upper Peninsula. The GUPAA board and research advisory committee reviewed and revised the Project GREEEN Agronomy and Livestock Priorities for the UP which are listed below.

Top Agronomy Priorities

- Promote agricultural education to increase agricultural literacy among youth and the general public to enhance their understanding of production agriculture.
- Investigate, develop and demonstrate methods to improve soil health and soil biology.
- Investigate programs that add value to U.P. produced crops and products.
- Evaluate cost-effective methods to maintain or increase the economic viability of forage production and utilization in the U.P. on various soil types.

Top Livestock Priorities

- Promote agricultural education to increase agricultural literacy among youth and the general public to enhance their understanding of production agriculture.
- Investigate programs that add value to UP produced livestock and dairy products.
- Utilize the beef herd at the Upper Peninsula Research and Extension Center to enhance research capabilities.
- Support resources to enhance small and/or beginning farm development and sustainability.

GUPAA members will have the opportunity to discuss and ratify these lists of priorities at this year's annual meeting.

2023 BULL TESTING

You've fed your bull all Winter and on the outside, he looks good...but what about what you can't see? Don't take your chances! Get his semen tested--Ensure he's able to do his upcoming job! Haul-in dates at MSU Chatham location are as follows:

Thurs. May 4th

Fri. May 19th

Tues. May 30th

If you'd like to be added to one of the above haul-in days or if you'd rather schedule bull testing at your home farm location, please give us a call.

Upper Peninsula Veterinary Service: 906.399.2043

Looking forward to hearing from you--Dr Renee Coyer



Attention All Farmers and Ranchers! You are Invited to join the Ag Resilience Project

What is resilience and what is this project all about?

"Resilience" is the ability of a system to withstand and recover from acute disruption or crisis. A resilient farming system can better withstand weather extremes, supply chain disruptions, market volatility and rapidly evolving income opportunities.

Our goal is to learn how resilience can be achieved and supported in today's agricultural systems. The accumulated experience and wisdom of farmers and ranchers is key to our learning.

Benefits to Participants

- Helping us help you with improved management recommendations for the real world
- Opportunity to network and participate in citizen science with other farmers and researchers across the USA

Who Can Participate?

We are looking for farmer and ranchers volunteers who:

- Have been farming for at least five years
- Can provide farm-scale data on crop and/or livestock production and production inputs
- Are willing to participate in interviews and surveys about what influences your farming decisions

All information provided will remain strictly confidential.

All farmers are welcome, whether you grow row crops, hay crops, vegetables, fruit, livestock, or a combination at small or large scale.

If interested in participating, please scan the QR code or click this <u>link</u> and fill out our interest questionnaire.



For more information contact: Kim Cassida, Extension Specialist, Michigan State University, cassida@msu.edu

Together we'll deliver solutions so American farmers can thrive.

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