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OFFICIAL SHOW GUIDE



A SPECIAL SUPPLEMENT TO

Michigan
Farm News

AUGUST 17 & 18, 2021
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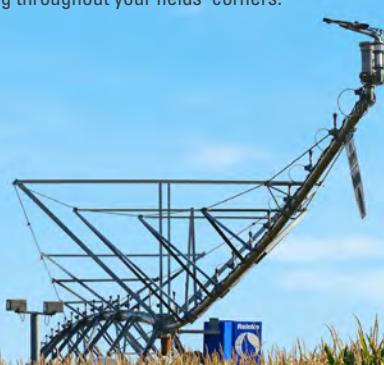
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Welcome to the 2021 AgroExpo!

It is with great excitement that we are able to provide our show this year after a missed opportunity in 2020. With more than 120 exhibitors, and multiple demonstrations and speakers in our line up, you are sure to take away valuable and usable information to help you and your operation succeed.

As we navigate through this week, utilize this show guide to afford you every opportunity to make the most of your visit. Network with fellow growers, walk the aisles and meet up with industry professionals who can provide solutions to your current operational needs.

Tillage and chopper demonstrations have once again returned to the AgroExpo, as it has always been a well-attended and popular event. We want to thank all of the participants in this year's demonstrations as it brings a valuable learning experience to all.

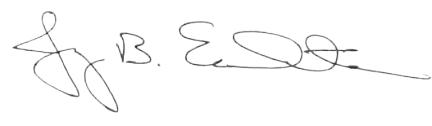
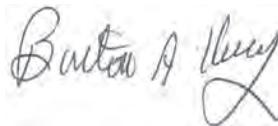
With more than 80 varieties of soybeans and 80 different corn hybrids on display, there is something for everyone to discover. Visit your seed professional's booth and review the many different benefits of his or her soybean and corn selections.

Equipment, as always, is a hot commodity; you will find endless opportunities to connect to industry leaders from all brands representing the latest in innovation and technology.

During your visit, sit in on our numerous speaker opportunities and earn valuable RUP and CCA credits. Presenters from the industry will cover topics that include carbon credits, estate planning, climate forecast and trends of the future, irrigation technology and fertility management as it relates to hybrid selections.

The show continues to grow, and with your involvement has become one of the largest agricultural trade shows in the region — we are proud to be a part of that. Our mission to **Connect, Discover** and **Innovate** is at the forefront of our planning and advisory committee. We want to thank all of you for your loyal participation and our team of industry professionals and volunteers who will once again make this AgroExpo a success.

Enjoy the show!



BURT HENRY

AgroExpo

Industry Relations Manager

JAY B. ECCLETON, CGCS

AgroExpo

Site Manager

Getting to AgroExpo



SCAN QR CODE

Use your cellphone camera to scan the code to get details and directions to AgroExpo!

EVENT ADDRESS

5605 FINDLAY RD.
ST. JOHNS, MI 48879

What's the difference?

AGROLIQUID

There are many choices when it comes to selecting crop nutrition products. What makes AgroLiquid any different?

It comes down to what we have been doing for more than 35 years: providing a complete line of effective crop nutrients, and offering highly trained staff and retail partners to provide sound recommendations based on a soil test, agronomics and crop goals.

A GOOD FOUNDATION

There are many factors to consider when structuring a nutrient management plan. First, it's less about what you put in the products than what you don't put in the products.

The foundation of a good fertilizer is using raw materials that don't contain things that are harmful to plants. AgroLiquid uses the highest quality raw materials and puts them together in a clean formulation that is safe for the plant. We eliminate harmful byproducts that can cause crop injury and use proprietary formulation technology that

improves uptake and utilization of our products within the plant.

Those things together create high-quality, efficient fertilizer products.

COMPATIBILITY

Another important consideration in choosing fertilizer is compatibility.

Regardless of the reason, taking extra passes over the field to apply fertilizer is not an efficient use of resources. AgroLiquid products can be effectively applied at planting, side-dress or foliar — when a pass will be taken over the field anyway.

In fact, AgroLiquid's seed-safe formulations and chelation technology are representative of our commitment to generating the maximum crop response from applications of fertilizer. In addition, AgroLiquid has unmatched compatibility with most crop protection products and the full range of other AgroLiquid nutrients.

RESEARCH

Intensive research, development and product testing have resulted in a full range of nutrient products that don't solely focus on N-P-K.

As AgroLiquid CEO Nick Bancroft says, "We use nutrients to make nutrients better."

He gives the example of a phosphorous product, "It should not only contain phosphorous, but it should also contain nitrogen, it should contain potassium, and it should contain micronutrients."

Bancroft explains those nutrients work in harmony with phosphorous in the processes that phosphorous affects the plant to make uptake, translocation, and utilization in the plant more efficient.

This equates to more plant growth with less applied fertilizer. AgroLiquid employs this philosophy in products such as Pro-Germinator, which uses a blend of phosphate, nitrogen, potash, and iron to maximize crop response at critical growth stages.

AGRONOMIC EXPERTISE

If you are a producer facing the prospect of investing significantly in crop nutrition, it can be uncomfortable leaving a recommendation to someone's good judgment.

How do you know if that 'someone' knows what they are talking about as it relates to crop nutrition and your farm? That's why it is important to work with people who are committed to crop nutrition. Backed by years of research, AgroLiquid's highly trained sales and agronomy team is skilled at helping growers make these management decisions. Beyond that, AgroLiquid partners with ag retailers who are dedicated to helping growers develop efficient and economical crop nutrition plans.

AgroLiquid is successful when our customers are profitable. We work tirelessly on all of these factors and more to be the best at this variable. Regardless of the changes in markets and economics of our producers, we are on the same ride, so we better strive to be the best at what we do. We approach our customers with long-term success in mind.

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* Offer available through 12/31/21. This offer may be combined with other offers, but is not valid on prior purchases. A valid Farm Bureau® Membership Certificate is required, which may be obtained at www.fb.org/about/join.

See your participating Case IH dealer for details and eligibility requirements. Not available in all states. Offer subject to change or cancellation without notice.

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Schedule at a glance

TUESDAY, AUGUST 17

MABA Regional Ag Club/Clinton County Catalyst Club Breakfast Dining Tent.....	7 – 8:30 a.m.
INVITATION ONLY – SPONSORED BY THE CLINTON COUNTY ECONOMIC ALLIANCE, CONSUMERS ENERGY AND THE AGROEXPO	
Show Opens.....	8:30 a.m.
Chopper Demonstrations Demo Area	9 – 10 a.m.
Understanding Climate Change Speaker Tent	10:15 – 11 a.m.
SPONSORED BY RENK SEED	
Irrigation Technology Speaker Tent	11:15 a.m. – Noon
SPONSORED BY GREAT LAKES AG IRRIGATION	
Climate Change – The New Michigan Corn Belt? Speaker Tent	Noon – 1 p.m.
SPONSORED BY PIONEER	
Succession Planning Speaker Tent	1 – 1:45 p.m.
SPONSORED BY FRALEIGH LAW	
Tillage Demonstration Demo Area.....	2 p.m.
Show Closes	4 p.m.

RUP and CCA credits are approved for all speaker sessions.

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ARTEX

Ellens Equipment to demo Pottinger's TERRADISC

FARM NEWS MEDIA

Ellens Equipment, with locations in McBain, Beal City and Ithaca, will be participating in this year's AgroExpo tillage field demonstrations, showcasing the Pottinger TERRADISC 10001 T with a working width of 33 feet.

Pottinger also offers a 26-foot version of the trailed short-disc — the TERRADISC 8001 T. Designed for high-speed shallow tillage operations, both models offer blockage-free incorporation of harvest residues and reliable operation in different operating conditions even with high levels of straw and residue.

High reliability in combination with working speeds of up to 11 mph ensures the enormous output of the TERRADISC. Pottinger recommends a minimum 270-horsepower for the 26-foot units; 350 horsepower for the 33-foot model. The uniform, shallow working depth and optimum packing effect produce a perfect seedbed.

The compact design, aggressive disc angle of the 23-inch blades on 5-inch spacings and offset configuration of the tools ensure reliable penetration and excellent mixing in of soil and vegetation even in dry conditions. The short construction is a key feature of Pottinger compact disc harrows, with only 35-inches separating the front and rear disc gangs.

And, the Pottinger TERRADISC offers a range of working depths from 2 to 6 inches for the best site-specific soil cultivation, depending on field conditions and residue.

PERFECT WORKING RESULTS WITH THE TWIN ARM SYSTEM

Pottinger has optimized the geometry, size, mounting angle and penetration angle of the discs. Two solid forged carrier arms are welded to a very wide clamping bracket to ensure that the discs always retain their position and angle.



Even in heavy soil or with stones, it is impossible for them to deviate to the side — hard wheel marks are broken up consistently. The central and hydraulic working depth setting with jockey wheels (optional on 8001 T, standard on 10001 T) is convenient and easy to adjust. The result: low draft, perfect penetration, very good ground tracking, the best tilth and incorporation of harvest trash into the soil.

SOIL CONSERVATION EVEN WITH A LARGE WORKING WIDTH

Soil conservation is also a key issue with the Pottinger TERRADISC. The individual frame sections adapt to the ground contours to provide optimum conservation of the soil. At the headland, the TERRADISC T is raised onto the suspension of the rear roller so its weight is distributed across the whole working width making the TERRADISC very light on its feet at headland turns.

Pottinger offers multiple rear roller options for the TERRADISC: cage roller, pack ring roller, rubber packer roller and tandem CONOROLL.

Despite its large working width, the TERRADISC T is compact during transport. The chassis features an integrated folding and transport system for safe road transport with a transport height of 13 feet and a transport width of 10 feet. Air brakes or hydraulic brakes are available.

Pre-select functions are used to control the machine as standard, and only three double-acting remotes are required. An ISOBUS compatible control system and load sensing hydraulics are available as an option, using the new EXPERT 75 ISOBUS terminal — a convenient and intuitive single-hand control system with a touchscreen and scroll wheel.



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Schedule at a glance

WEDNESDAY, AUGUST 18

FFA Crop Management Breakfast and Panel Discussion | Dining Tent..... 7 – 8:30 a.m.
INVITATION ONLY – FFA CROP MANAGEMENT SPONSORS AND TEAM MEMBERS

Show Opens..... 8:30 a.m.

FFA Tractor Operators Contest | FFA Tractor Operators Contest Area..... 9 a.m.

FFA Crop Management Contest Judging | FFA Challenge Plots..... 9 a.m.

Chopper Demonstrations | Demo Area 9 – 10 a.m.

Carbon Markets 101 | Speaker Tent 10:15 – 11 a.m.

SPONSORED BY THE NATURE CONSERVANCY

Fertility by Hybrid Management | Speaker Tent 11:15 a.m. – Noon

SPONSORED BY GOLDEN HARVEST

Succession Planning | Speaker Tent..... Noon – 1 p.m.

SPONSORED BY FRALEIGH LAW

Developing Irrigated Acres | Speaker Tent 1 – 1:45 p.m.

SPONSORED BY MICHIGAN VALLEY IRRIGATION

Tillage Demonstration | Demo Area 2 p.m.

Show Closes 4 p.m.

RUP and CCA credits are approved for all speaker sessions.

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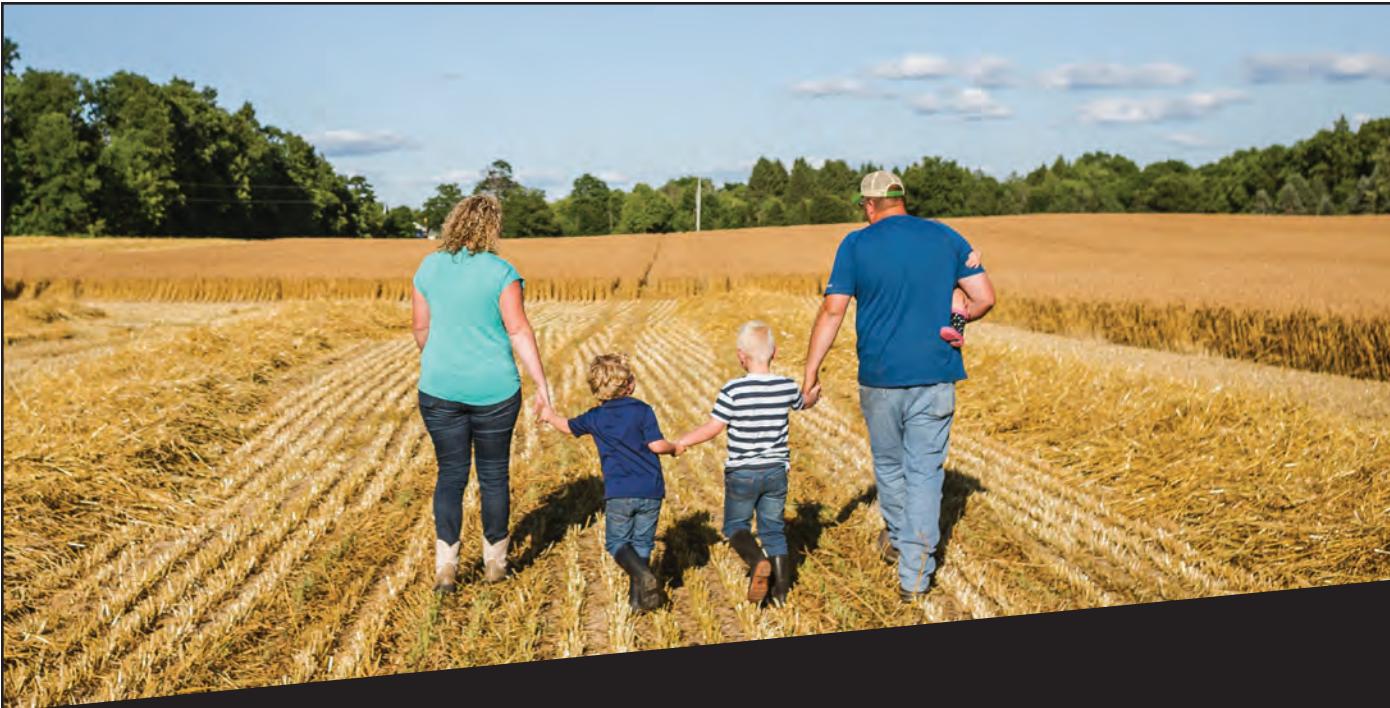
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Schedule for Tuesday, August 17

MABA Regional Ag Club/Clinton County Catalyst Club Breakfast (*invitation only*)

7 – 8:30 a.m. | Dining Tent

Keynote speaker
Dr. Samuel Stanley,
Michigan State University

The Clinton County Economic Alliance and Michigan Agribusiness Association Ag Club Breakfast.

SPONSORED BY THE CLINTON COUNTY ECONOMIC ALLIANCE, CONSUMERS ENERGY AND THE AGROEXPO

Show Opens

8:30 a.m.

Chopper Demonstrations

9 – 10 a.m. | Demo Area

Do you like the sound of massive forage harvesters revving their engines? If so, you won't want to miss the impressive line-up of forage harvesting equipment and side-by-side demonstrations all centrally located at AgroExpo. According to AgroExpo advisory committee member Tim Rogers, attendees can expect to see the leading manufacturers of forage harvesting equipment and watch the harvesters chop corn silage both days of the show starting at 9 a.m. Representatives from forage handling equipment will be on hand to answer questions as well.

Understanding Climate Change

10:15 – 11 a.m. | Speaker Tent

Mark Torregrossa,
Meteorologist

Torregrossa will discuss what to expect for weather the rest of this year and into next as well as talk about climate change. He will explain how you can use climate change to improve your operation.

SPONSORED BY RENK SEED

Irrigation Technology

11:15 a.m. – Noon | Speaker Tent

Clayton Irani, Great Lakes Ag Irrigation

In a world changing faster than you can blink, adaptation is the key to bringing order in this chaos. This session will focus on ag irrigation technologies and their progression through this fast-paced information age. What are the steps to develop your real estate with irrigation? What tools are available to allow you to manage every acre like a farm and every farm like an acre? Success in everything starts and ends with perfecting the little things. Don't get caught up in this world of chaos. Join Irani as he walks you through a step-by-step process in controlling what could be the most important variable input to your plant's health. Water.

SPONSORED BY GREAT LAKES AG IRRIGATION

Climate Change - The New Michigan Corn Belt?

Noon – 1 p.m. | Speaker Tent

Jeff Schussler, Ph.D., Schussler Ag Research Solutions

Global climate change influences environmental trends, both negative and positive, that will have substantial impacts on crop production in the 21st century. On balance, these changes have actually supported higher corn yields in the U. S. over the last 40 years. These environmental advantages, combined with technology advancements in genetics and management, should continue to improve corn yields in northern latitudes including Michigan in the 21st century. Listen to the story to see your future!

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Succession Planning

1 – 1:45 p.m. | Speaker Tent

Mike Fraleigh, Fraleigh Law

The ag community is currently facing unprecedented challenges posed by COVID-19, changing markets, confusing government programs, liability exposure, financial strain, and market and structural changes. And in the midst of all this, we must continue to meet the daily and long-term needs of our businesses and families. Join us to learn strategies to meet your business and family goals. Now more than ever, it's important to have a plan in place to navigate the medical, financial, family, and business changes and challenges facing us. We can't always predict what the future will bring, but we can lay a foundation of preparedness.

SPONSORED BY FRALEIGH LAW

Tillage Demonstrations

2 p.m. | Demo Area

Several tillage equipment manufacturers will be on hand to demonstrate and explain how the latest in tillage equipment works, including Pond Hill Sales, Peters Brothers Farm Supply, Hutson Inc, Farm Depot, Ellens Equipment, Custom Manure Irrigation, Aldermans, and HJV Equipment.

Show Closes

4 p.m.

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Michigan Valley Irrigation has been leading the way in developing irrigated acres in Michigan for more than three decades. Yet it feels like we have only scratched the surface.

With developing technologies and an ever-growing demand for more food from fewer acres, we must continue to evolve and adapt to serve the needs of our customers and their markets.

Weather station input, GPS guidance, variable rate irrigation, continuous movement and remote operation are a few technologies already utilized by the irrigation equipment manufacturers.

The greatest challenge is that every farm has different needs, and every field is unique. By taking an open-minded approach and refusing to give into what may seem like an insurmountable challenge, we strive to find an optimal solution.

Ground zero is usually what are we irrigating.

Is there an expected crop rotation? What is the soil type? Where is the parcel located? Is this owned property? Is there public power available nearby and is it single or three phase? Is there surface water readily available? Are there any proximal fields that could be watered with a common water or power source?

We are not merely selling irrigation equipment but developing irrigated acres on a farm that can have potential returns for 50 or more years. Yes, we ask a lot of questions. But don't you want an efficiently designed project?

If the desired result is a cost-effective, well-thought-out developed irrigated area, we must consider the various pieces and strive to match them together to function harmoniously. If you were to think of irrigated acres as a tabletop, it would have four legs supporting it. The four legs would be: water, power, connecting infrastructure, and the application equipment.

WATER

The water source could be a surface water withdrawal like a lake, pond, stream, or ditch. If there is not a convenient surface water source, we will likely look for ground water, commonly sourced with a well.

» CONTINUED ON PAGE 13



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» CONTINUED FROM PAGE 12

Regardless of surface or ground water, steps must be taken through government agencies to have permission for any withdrawal over 70 gallons per minute. We have numerous staff members who can assist with this process. Large ground water withdrawals are best performed by an experienced irrigation well driller, of which we have several contacts.

POWER

The most economical power supply is often 480 Volt Three Phase power from the grid depending on location, access to it, and where the pump needs to be located. Technologies such as Variable Frequency Drives (VFDs) make conversion of single phase to three phase power not only affordable, but highly efficient as well. Alternate options are also available to generate power. This is an ongoing expense, so we work hard to keep your operating costs low.

INFRASTRUCTURE

The third leg under our table is the infrastructure which connects the water and power supply sources to the application equipment. Selecting the most favorable path is an important

step. When selecting the size of pipe and wire it is important to understand changes that occur with distance.

Water experiences friction losses which results in a drop in pressure. Electricity experiences voltage drop which can ruin your motors. We also consider future expansion of every system. A few dollars spent on upsizing pipe and wire can save thousands on the next phase of a project.

APPLICATION EQUIPMENT

Center pivot irrigation systems are the preferred option for most of our projects, especially for larger fields. We occasionally recommend a linear system, which moves in a straight line as opposed to revolving around a pivot point. Hard hose travelers are more common for smaller or oddly shaped fields. Fixed guns can be used to fill in smaller outer section of fields.

Regardless of the type of application equipment, there are still numerous decisions to make. Our experienced sales staff can walk you through the various decision on size, structure, adjustments for topography, unique sprinkler packages, remote management, and weather-related input scheduling.

CONCLUSION

Once we have completed the design process and learned enough about your operation, we can calculate a return on investment (ROI). There will need to be a few assumptions, such as crop prices. Before we ask for your commitment, you will have an exceptionally good idea on the potential impact of your investment.

An irrigated acre is a long-term investment in your business. It can have a huge impact on the success of your operation. To optimize our yield outputs, we must optimize and control the inputs. Water is the single greatest input needed for any living thing.

In Michigan we receive enough water nearly every year, but it is seldom delivered when our crops have the greatest demand. With a well thought out system, we can help mother nature optimize your production.

The more we know about what you are trying to accomplish and your management goals, the better equipped we are to help you succeed. For help getting started developing irrigated acres on your farm, call 989-762-5028.



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Schedule for Wednesday, August 18

FFA Crop Management Breakfast and Panel Discussion

(invitation only)

7 – 8:30 a.m. | Dining Tent

Show Opens

8:30 a.m.

FFA Tractor Operators Contest

9 a.m. | FFA Tractor Operators Contest Area

FFA Crop Management Contest Judging

9 a.m. | FFA Challenge Plots

Chopper Demonstrations

9 – 10 a.m. | Demo Area

Do you like the sound of massive forage harvesters revving their engines? If so, you won't want to miss the impressive line-up of forage harvesting equipment and side-by-side demonstrations all centrally located at AgroExpo. According to AgroExpo advisory committee member Tim Rogers, attendees can expect to see the leading manufacturers of forage harvesting equipment and watch the harvesters chop corn silage both days of the show starting at 9 a.m. Representatives from forage handling equipment will be on hand to answer questions as well.

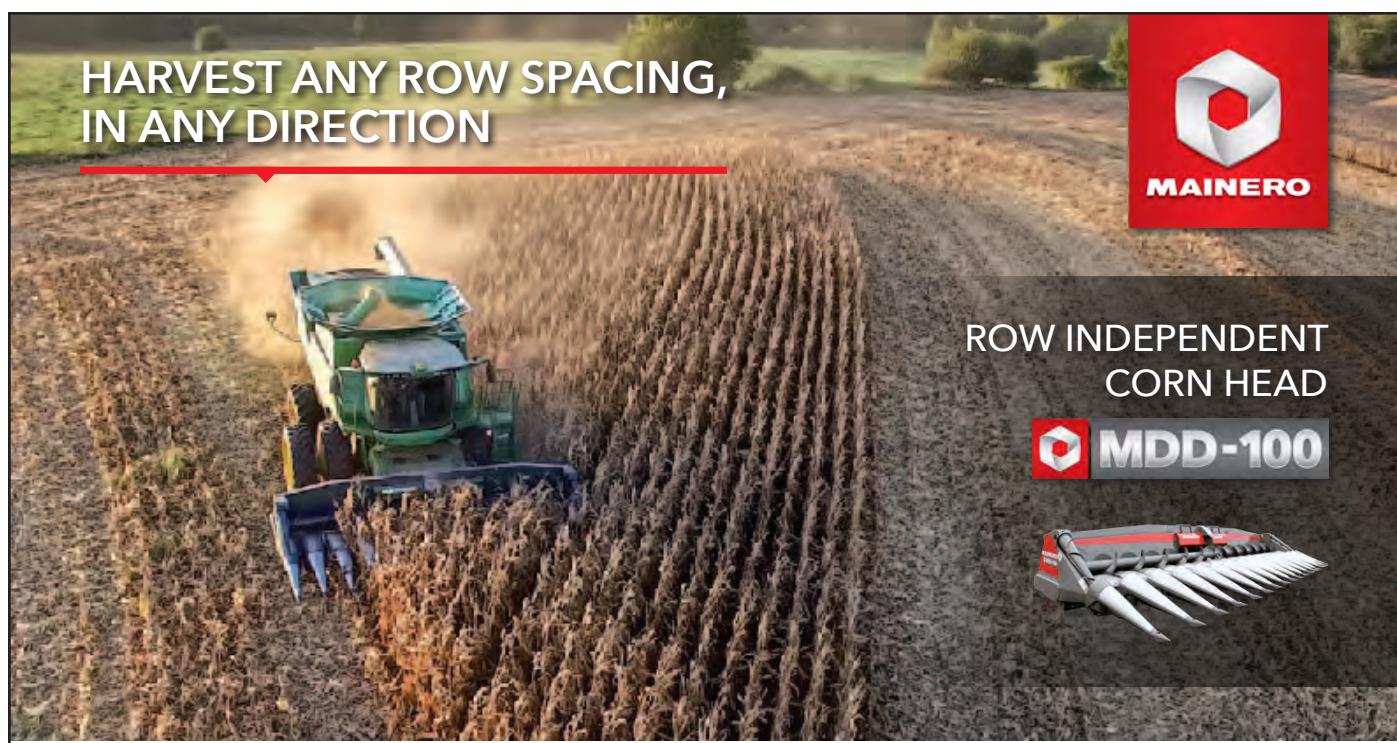
Carbon Markets 101

10:15 – 11 a.m. | Speaker Tent

Kristin Poley, Corn Marketing Program of Michigan

Carbon as a commodity is getting a lot of attention lately, with support for a functioning carbon market from both the private sector and government agencies. This session will provide an overview of the current state of carbon markets and detail what questions farmers should be asking before enrolling in a carbon program.

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Fertility by Hybrid Management

11:15 – Noon | Speaker Tent

Stephanie Smith, Golden Harvest

Who likes paying more for inputs with each passing calendar year? With rising costs of seed and fertilizer inputs, how we manage applications in terms of timing and placement on our farm is vitally important for operational longevity. Furthermore, have we ever considered each hybrid and variety we grow on our farm might have different needs as well? This session will focus on discussion pertaining to fertility management x genetics. Utilizing plant architecture and crop stage demands, how can we get each seed to produce as many bushels as possible? Bring your questions and open mind to see what potential each seed can unlock.

SPONSORED BY GOLDEN HARVEST

Succession Planning

Noon – 1 p.m. | Speaker Tent

Mike Fraleigh, Fraleigh Law

The ag community is currently facing unprecedented challenges posed by COVID-19, changing markets, confusing government programs, liability exposure, financial strain, and market and structural changes. And in the midst of all this, we must continue to meet the daily and long-term needs of our businesses and families. Join us to learn strategies to meet your business and family goals. Now more than ever, it's important to have a plan in place to navigate the medical, financial, family, and business changes and challenges facing us. We can't always predict what the future will bring, but we can lay a foundation of preparedness.

SPONSORED BY FRALEIGH LAW

Developing Irrigated Acres

1:00 – 1:45 p.m. | Speaker Tent

**Andy Stroop,
Michigan Valley Irrigation**

This presentation will cover all of the components that go into an irrigation project: water, power, infrastructure and application equipment.

SPONSORED BY MICHIGAN VALLEY IRRIGATION

Tillage Demonstration

2 p.m. | Demo Area

Several tillage equipment manufacturers will be on hand to demonstrate and explain how the latest in tillage equipment works, including Pond Hill Sales, Peters Brothers Farm Supply, Hutson Inc, Farm Depot, Ellens Equipment, Custom Manure Irrigation, Aldermans, and HJV Equipment.

Show Closes

4 p.m.



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Horsch 24 row 30 inch cornplanter, 2x2 fertilizer, 1000 gallon tank, hydraulic down pressure, electric drive meters, 130 bushel seed tank, iso buss plug and play monitor, showroom condition, \$195,000



2021 Horsch RX-30, electronic or manual depth control, optiroll finisher, in stock, \$121,000



Horsch RT-270, electronic depth, excellent condition, \$54,000



John Deere 9620R, 5 remotes, PTO, Michelin 800 IF tires, leather seats, 1780 hours, \$375,000



2021 Horsch MT-22, mechanical depth control, 3pt mount or mounted on implement caddy, \$57,000 with caddy or \$50,000 without.



2017 John Deere 9620R, 5 remotes, leather, Michelin IF tires, 1800 hrs, excellent condition. \$365,000



New Horsch MT-22, mechanical depth control, with used Elk Creek model 450 implement caddy, \$57,000



Brent 1194 graincart, scales, tarp, nice condition \$40,000



2021 Horsch MT-15, rollflex roller, \$35,000



Elmer's 2000 bu. Tracks, Righthand auger unload, scales, joy stick controls, autounload, \$140,000

The value of research

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What do all successful products have that makes for a satisfied end-user? Research!

What about one-and-done products that are presented with empty promises that lead to regret, anger and a self-promise of "never again"? No research!

There are many choices of products to use when doing anything, but it seems especially so when planning for growing a successful crop. There are the old tried-and-true products that have stood the test of time. Then there is the "new technology" that seems to be offering something different to make it easier to reach cropping goals. Sounds good, but where's the research?

When it comes to growing crops, the North Central Research Station (NCRS) offers proof of performance for research-backed production. For example, the AgroExpo is located on the proving ground that makes up part of the NCRS. In 1994, the NCRS was established to enable field-testing of new and existing products for Agro-Culture Liquid Fertilizers, now AgroLiquid. The farm has grown from the original thirty acres to over a thousand acres and has a professional agronomic staff well suited to conduct ag experiments, and collect and analyze the required data.

As exposure to the high-quality replicated plot research conducted at the NCRS has grown, the mission of the facility has evolved. In recent years, the NCRS has conducted field research for all types of agribusiness, in addition to the continued testing of AgroLiquid products. Agricultural companies need to obtain performance data from here in mid-Michigan to help with product use by growers. The NCRS' ability to scientifically field test these products makes it a perfect fit.

The NCRS offers testing with the most modern field equipment, ensuring application accuracy.

Much of that equipment is on display in booth **P406-P410**. Tests are conducted on a variety of field crops such as corn, soybeans, wheat, sugarbeets, and potatoes, but also several fruits and vegetables.

Experiments include fertilizers, fertilizer additives, seed evaluations, agronomic factors, biological inputs,

growth regulators, crop protection and others. Confidentiality is a primary component of the NCRS' product testing. Businesses are assured that tests are conducted with no outside sharing of information.

Additionally, company reps can visit their plots any time, and even bring growers if they wish. The NCRS staff is pleased to welcome several company reps from across the U.S. who are visiting the AgroExpo to see their plots and also take in the show!

We are proud for all attendees to see the best of mid-Michigan agriculture on display!



A joint venture of:



Pond Hill Sales & Service to demo the Lemken Rubin 10 compact disc

FARM NEWS MEDIA

Pond Hill Sales & Service, located in Bancroft, will be participating in this year's AgroExpo tillage field demonstrations, showcasing the Lemken Rubin 10 compact disc.

The Rubin 10 sets new standards in the field of compact disc harrows and offers a wide range of improvements. Even under difficult conditions, the Rubin 10 ensures intensive and homogeneous mixing of organic matter and soil up to a working depth of approximately 6 inches. This allows it to significantly reduce moisture losses due to evaporation.

Most striking is the new disc arrangement on both sides of the implement arranged to produce balanced symmetrical forces. This not only ensures directional stability but allows precise pass alignment, also using GPS.

Available in working widths from 8' to 23' the Lemken Rubin 10 compact

disc line is designed to make tillage even more efficient and flexible with one pass regardless of soil conditions. The dual angle blades are set at 20 degrees to the soil and 17 degrees to the travel allowing the disc to pull itself into the ground, transferring the weight of the soil to the frame of the machine ensuring complete soil turnover.

Notched symmetrical discs pull trash through the machine and eliminate drafting. Working depth of 2.5" to 6" controlled from the cab of the tractor along with adjustable rebound harrows front and rear provide even greater



incorporation of organic matter.

Lemken runs only mechanical coil springs for disc reset which has 1,800 pounds of consistent downforce eliminating hopping. Double rolling baskets articulate, allowing the machine to stay in the ground in uneven conditions.



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Exhibitors list

COMPANY	Lot #	COMPANY	Lot #	COMPANY	Lot #
360 Yield Center	P306-307	LG Seeds	P101, P201	Peters Brothers Farm Supply	E506
Ag Armour Seeds	P109-110, P210	Lynnman Construction LLC	13-14	Pioneer	P116-117, P216-217
Ag Marvels LLC	E607A	Lystek International	34	Pond Hill Sales & Service	E513
Ag Pro Farm Services / Enduraplas	E705	Marloo Equipment	E708-709, E808-809	Precision Ag Solutions LLC	E704
Ag Resource Management (ARM)	E607B	Martin Till	E610	Precision Planting	P314-315
Ag-1 Crop Solutions LLC	E611	McConnell Farm Supply	E812	Puck Enterprises	15
AgrAbility	28	MDARD: ESD Biosolids	P123	Quality Solar LLC	E613
AgriGold Hybrids	P112, P212	MDARD: MAEAP	36	RangeLine Group	E908
AgroLiquid	P311-312	MDARD: Right To Farm (RTF)	35	Renk Seed Company	P309, P310
AIS Construction Equipment	E706	Meekhof Tire Sales & Service	E608	RH Wiles Sales Inc	E805, E806
Alamo Valley Ag	E615-616	Mensch Manufacturing	E612	Richmond Brothers Equipment	24
Alderman's	E504	Michigan Ag Today	10	Rincker Ag Solutions (Channel Seed P209)	12
American Metal Roofs	31	Michigan Agricultural Commodity	E614	Roberts Dairy Service	E507A
Bayer Crop Science Dekalb/Asgrow	P121-122, P221-222	Michigan Agricultural Mediation Program	27	Rupp Seed Inc	P115, P215
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Brevant Enlist Showcase Plots	E515-516	Michigan Foundation for Agriculture	3-4	Simplot Grower Solutions-Innivictis	P320, P420
Brevant Seeds	P107-108, P207-208	Michigan Iron & Equipment	E810	Stine Seed Co.	P105, P205
Burnips Equipment	E712-713	Michigan Soybean Promotion Committee	P418	Texas Refinery	22
Bush Hog Inc	E601-602	Michigan Valley Irrigation	E609	The Nature Conservancy	P223
Capital Equipment	E603	Midwest Laboratories	P411-412	Timac Agro USA	P317, P417
Channel Seed (Rincker Ag Solutions #12)	P209	Miedema Asset Management Group	19	TriCal Superior Forage	30
Conklin Agrovantage	P118, P218	MSU Extension	P119, P219	Valent USA LLC	P419
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Custom Agri Systems	E001	Nutrien Ag Solutions	P111, P211	Syngenta Crop Protection	E703
Custom Manure Irrigation	E710	OXBO	E804	Williams Farm Machinery	E906
Custom Traction Grooving	8	Pauli Ford	E916-917	Young Chevrolet of St. Johns	E1001-1002
Dairy Farmers of America	6	Performance Tillage and Bolt	E512		
Dairyland Seed	P113-114, P213-214				
David Chapman Agency	32				
Dawson Tire and Wheel	E711				
DF Seeds & Legacy Seeds	17-18				
Diesel Equipment	11				
Diesel Injection Service	E707B				
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Ellens Equipment	E912-913				
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Farmco Distributing Inc	E301-303, E401-E403				
Feldpausch Precision Services	P316, P416				
Fertilizer Dealer Supply	E505				
Fiber By-Products	2				
Fox Chrysler Dodge Jeep Ram	E914-915				
Fraliegh Law Firm PLLC	21				
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Great Lakes Ag Irrigation	E813				
Great Lakes Cleaning Systems	E707A				
GreenStone Farm Credit Services	E807A				
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Harvest Solar	E811				
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Hutson Inc.	E508-511				
INA Store Inc	E501-502				
Janson Equipment Company	E803				
Kaeb Sales Inc	E904-905				
Kubota	E101-103, E201-203				
La Crosse Seed	P319				
Legend Seeds Inc	P120, P220				

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Map at a glance

WELCOME TENTS	▲	INDOOR BOOTHS	■
COMFORT STATIONS	●	SHOW OFFICE	■
TRAM ROUTE	—	DINING TENT	■
OUTDOOR BOOTHS	■	SPEAKER TENT	■
OUTDOOR BOOTHS WITH PLOTS	■■■	TRUCK, RIDE & DRIVE AREA	■■■



Michigan Soybean Open House

Wednesday, August 18, 2021

7:00 a.m. - 9:00 a.m.

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You're invited to join us for a breakfast open house at our new office location inside AgroLiquid's Corporate Headquarters. We're excited to connect face-to-face with our farmers and industry partners after a long period of separation and virtual meetings!

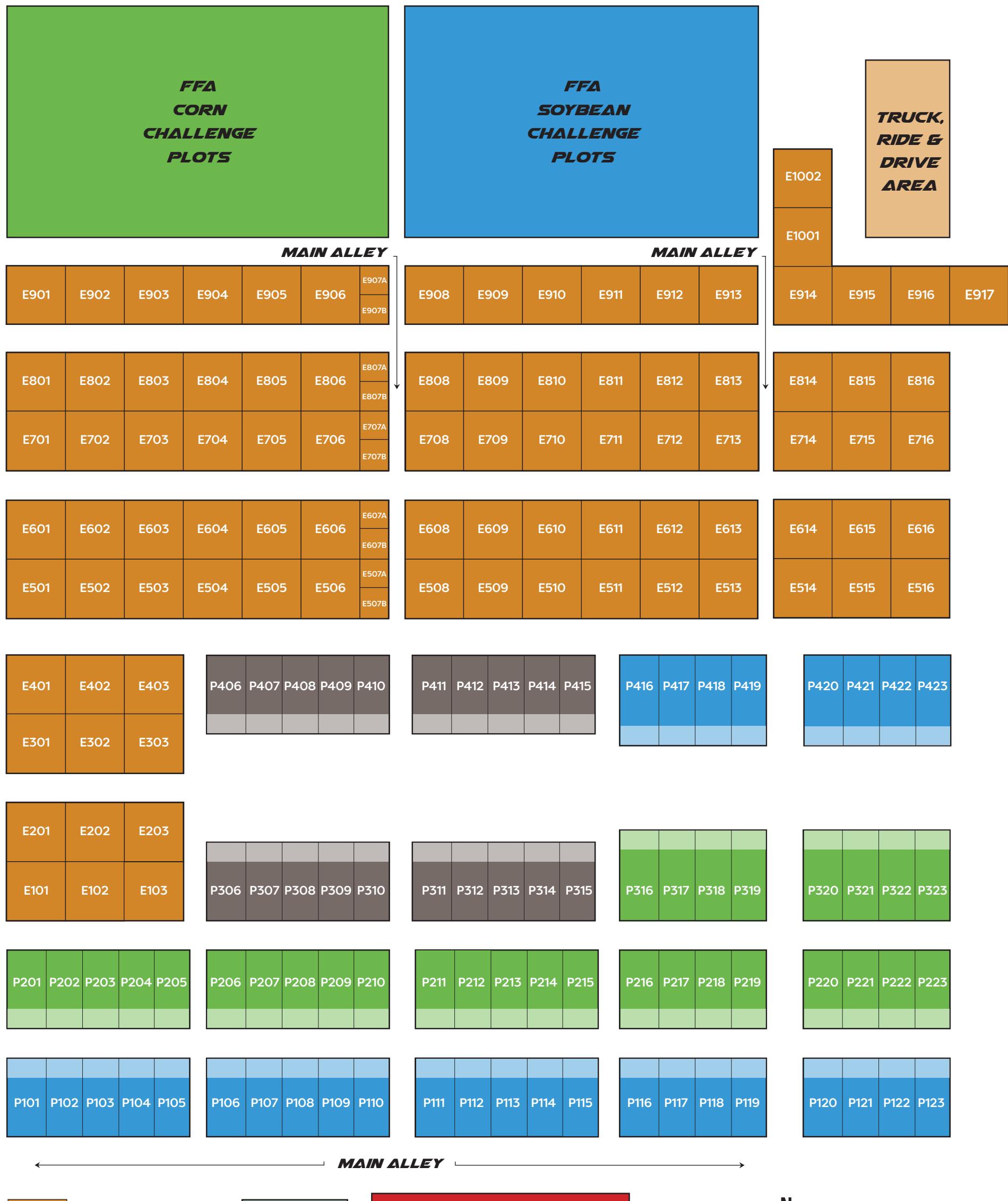
RSVPs are strongly encouraged. RSVP online at <https://www.eventbrite.com/e/156928927647> or by phone at (989) 652-3294 by August 11, 2021.



OUTDOOR BOOTHS WITH PLOTS

EQUIPMENT BOOTHS

LEGEND

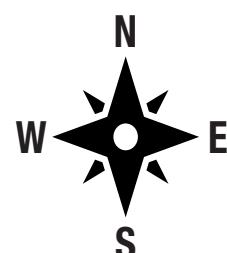


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SPEAKER TENT

INDOOR BOOTHS

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MAC: Adapting to change since 1976

MICHIGAN AGRICULTURAL COMMODITIES INC

The rest of the world may have ground to a halt during the COVID-19 pandemic, but agriculture didn't miss a beat. And Michigan Agricultural Commodities Inc. marched in lockstep with its grower-customers the entire time, according to MAC Merchandising Manager Robert Geers.

"While the Coronavirus was new, adapting to the marketplace and customer needs is nothing new at MAC," Geers said. "MAC has been adapting to changes and challenges for 45 years."

CONTINUOUS COMMUNICATION

Contact and communication have always been a priority for MAC. They helped growers navigate an unexpected environment while continuing to receive and ship grain. Their experienced staff of grain merchandisers remained available by several means of communication.

Geers said MAC had been unknowingly preparing for social distancing for several years, as they have focused on making communication simple and easy for growers.

"Adding ACH payments for grain and increasing email and text communication versus in-person meetings was just the beginning of MAC's expanded communication investment," Geers added. "We have also added mobile technology in the form of an MAC app that allows a grower to view contract balances, deferred pricing balances, prepaids, tickets, settlements and even sign contracts from a mobile device."

According to Geers, the investments maintained quality service without the ability to meet in person during the past year — and all were made pre-coronavirus. Since the onset of COVID-19, MAC focused on having experts available to help identify and utilize programs applicable to a grower's situation, which can be crucial during a black swan event such as the Coronavirus.

"We have done our best the entire time to be proactive in understanding and sharing with growers market happenings and USDA programs regarding COVID-19 to help them through such a unique year," Geers said.

ADAPTING TO CHANGE

As farmers work toward fully emerging from the pandemic, being flexible and able to adapt to change and the needs in the agriculture environment will be critical to agribusinesses and growers — an area where MAC shines, according to Geers.

"Our team is one of the most experienced in the state, so we can identify changes and adapt early," he said. "Our team's foresight helped MAC to recognize changes and demand in the market, such as adding specialty crops, including dry beans, IP soybeans, non-GMO soybeans and — most recently — organic corn to the list of crops MAC handles."

MAC has also responded to increased production goals by investing in bigger, faster grain pits and adding inbound and outbound scales, intending to get growers unloaded and back on the road in 15 minutes or less.

STAYING SAFE — ALWAYS

Safety has always been a priority at MAC, so while COVID-19 has required

new safety precautions, the concept was not entirely "new" to the MAC team.

"Our teams are used to safety guidelines, PPE, and general precautions," Geers said. "We've added and adjusted practices to ensure a continued safe environment, in light of information as it becomes available."

Geers added MAC will continue to adjust safeguards, with advice from professionals and governmental bodies.

"We're excited to put COVID-19 in the rearview, but we are also fully prepared to maintain a safe environment and continue operations through a new lens," he said. "We'll continue to provide flexible methods of doing business, so we can serve a customer in a way they are comfortable."

"Bottom line, MAC is ready and able to support its grower-customers," Geers continued. "As it says on our website, MAC was here yesterday, is here today, and will continue to be here tomorrow — long beyond the duration of this pandemic."



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Irrigation: Increasing profits, managing risk and utilizing nutrients

MSU EXTENSION; FARM NEWS MEDIA

Irrigation plays an important role in Michigan's agricultural production.

A Michigan State University Extension fact sheet developed in 2014, "Value of Irrigation to the Southwest Michigan Economy," utilizing USDA National Agriculture Statistics Service data, vegetable, fruit, ornamental, seed corn and commercial corn industry resources, outlined the economic impacts of irrigation on Michigan agriculture.

There are several benefits of irrigation in Michigan that are not generally understood. Michigan's humid climate means that irrigation water supplied is supplemental to natural summer rainfall. This situation is much different than in western areas of the Midwest.

Michigan producers use less water to produce an equivalent yield due to the state's high humidity and higher summer rainfall amounts which reduces crop water demand. Western regions may require two to three times the amount of irrigation to be able to produce a full crop. This is true of commercial corn as well as other crops produced under irrigation.

Irrigation also allows the crops produced to more fully utilize the fertilizer nutrients applied. For example, dryland commercial corn can have wide swings in yields based on the duration of drought stress conditions.

In years with adequate soil moisture, yields often run above 200 bushels per acre. With drought stress, these yields can drop more than 60 to 80 bushels per acre causing obvious issues with profitability. However, it can also result in not fully utilizing all inputs necessary to raise a crop, including energy, water, pesticides and fertilizers.

For example, not using all the nitrogen applied when anticipating full yields can result in leaching, causing water quality issues. Irrigation water application allows the plants to utilize the applied nitrogen more fully, reducing the risk of leaching losses to groundwater resources and producing economic returns.

The ability to apply nitrogen fertilizer through irrigation water also allows producers to apply the nutrient closer to the time of maximum uptake by the



crop, further reducing the risk of loss to the environment.

Additionally, nitrogen can be applied later in the season to make up for losses that can occur following excessive rainfall through leaching and denitrification (loss of nitrogen to the atmosphere as N2 gas under extreme wet soil conditions).

A study conducted by Bruno Basso showed that the demand for increased water needed for corn production due to climate change is much less than predicted by other studies. Their models predict that the impact of increased water demand caused by increased temperatures is offset by increased humidity in the Midwest corn growing region.

Basso points out that increased climate variability demand can also be offset by "regenerative practices, genetics and digital technology solutions."

Irrigation scheduling is an important step to maximize the benefit of water applications and increase water use efficiency. Maximum efficiency protects the watershed from nutrient leaching and excess water usage, and maximizes economic output for the growers.

MSU is continuing the development of irrigation scheduling tools, low-cost soil moisture monitoring systems and improved access to weather forecast and data through the MSU Enviroweather network to provide information that is easy for irrigators to use and tailored to meet Michigan needs.

Two Michigan-based irrigation companies are sponsors and available at this year's AgroExpo:

Great Lakes Ag Irrigation specializes in turnkey irrigated acre development, including Zimmatic Irrigation Sales and Service, as well as

service for all major irrigation brands. The company also offers pipe and wire sales and installation, and winterization services for all systems.

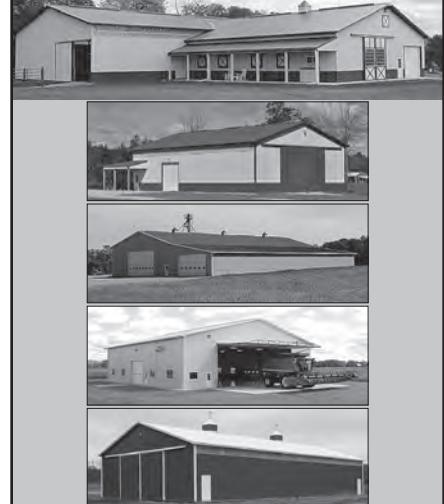
Michigan Valley Irrigation has been serving Michigan and the surrounding areas since 1985. With three locations in Michigan, the company is a full-service agricultural irrigation company, selling the Valley brand of irrigation equipment and handling every aspect of your irrigation needs.

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GUEST SPEAKERS



CLAYTON IRANI

Growing up on a farm in central Michigan, Clayton Irani is a farmer at heart. During his eight-year career in the irrigation industry, Clayton has worked and been involved in multiple aspects of the operation, first working on the building crew, then as a service tech and eventually project layout and design before he started his sales career. Acquiring hands-on experience at these various stages of many irrigation projects has given him a unique perspective and solid understanding of irrigation projects including designing, building, servicing, and financing. Taking his experience to the next level for his customers, Clayton and his team started an irrigation dealership in 2020 to enhance his service capabilities to the customer. Clayton assists producers to maximize their yields by developing farmland with irrigation, managing projects from start to finish, including power infrastructure and water permission, as well as efficient and effective design. He continues to work with many reputable partners in the Ag Industry to help growers and landowners increase opportunities, land values, yields, and profit margins.



STEPHANIE SMITH M.S., C.C.A.

Smith is a graduate of Michigan State University in Crop and Soil Sciences has held various agronomy roles within Monsanto, DuPont Pioneer, 360 Yield Center Regional and now currently as Golden Harvest District Manager in Michigan and Ohio. Farming with her family in southern Hillsdale County, Mich., each day is a mission to make the farmers more successful and profitable. As a seed professional, she's focused on increasing farmer-profitability. She enjoys being able to teach and educate about small tweaks on farms to really move the needle to higher yields and increased profitability. Smith is a resident of Fort Wayne, Ind., and farms with her family near Waldron, Mich.



KRISTIN POLEY

Poley is the research manager for the Corn Marketing Program of Michigan specializing in sustainability and soil health. She manages CMPM's contract grant program and participates in on-farm trials with research partners answering research questions on cover crops, soil health and carbon.



MIKE FRALEIGH

Fraleigh was raised on a family farm in Sanilac County, Mich., and has been meeting the legal needs of Michigan farmers for more than 15 years. His practice specialty includes farm and ranch business structure, succession planning and estate planning, and special needs trusts. He is a member of the American Bar Association, Wealth Counsel, and the State Bar of Michigan and a participant in several sections, including Estate Planning & Administration for Business Owners, Farmers & Ranchers; Business Investment Entities, Partnerships, LLC's and Corporations; Elder Law & Disability Rights; and Probate and Estate Planning.



ANDY STROOP

Stroop has been involved in mechanized field irrigation for over 20 years. He graduated from Purdue University with a B.S. in Agricultural Economics in 1988. Until 2003 he operated a cash crop farm in Howe, Ind. Stroop began his off-farm career in the mechanized irrigation industry in 2000 as a district representative for T&L Irrigation. After seven years working with the T&L Dealers in his area, he took a similar position with Reinke Manufacturing, another Center Pivot manufacturer. This nine-year span was invaluable to Stroop as he learned the supply and manufacturing side of the business while staying grounded helping dealers with their projects for the end-users. In 2009 Stroop opened his own T&L Dealership which he operated for the next 11 years. This experience added another side of the center pivot irrigation business which included: customer discovery, layout and design, ordering and delivery, installation, financing, service and repair as well as warranty work. Michigan Valley Irrigation was pleased to bring Stroop on board as a salesman in September of 2020 working out of the Battle Creek location creating watering solutions for farmers.



MARK TORREGROSSA

Torregrossa has been a meteorologist for more than 30 years. He graduated from Northern Illinois University with a Bachelor of Science in meteorology in 1989. He started his career working for a meteorology consulting company in Chicago. There, he forecasted for utility companies, nuclear power plants, trucking companies, radio stations and newspapers. His first television job was in Cedar Rapids, Iowa where he learned that farmers are an important group for a meteorologist to get to know. After three years in Traverse City, he moved to the Saginaw/Bay City/Midland/Flint television market and worked at WNEM TV5 and WEYI NBC25. In the early 2000s, he formed *farmerweather.com* and began to specialize in agricultural weather. Torregrossa provides a subscription service for daily dedicated-to-farming weather forecasts. You can sign up for the service by talking to Torregrossa personally. In 2007 he was awarded Michigan Farm Bureau's Agricultural Communicator of the Year. Now he is also MLive.com's chief meteorologist and can be found every morning on the MLive Facebook page.



JEFF SCHUSSLER, PH.D.

As an agronomist/crop physiologist, Schussler's career has focused on improving crop production. He grew up farming in western Missouri and, after obtaining his B.S. in Agronomy from Central Missouri State, worked for Monsanto in St. Louis, screening plant growth regulators for yield enhancements in corn. He obtained his M.S. and Ph.D. in Plant Physiology from the University of Minnesota and studied the mechanisms of drought tolerance in corn with the USDA-ARS. He then spent 10 years working on herbicide discovery and development with ISK-Japan at its North America headquarters in Cleveland, Ohio, before joining Pioneer Hi-Bred, International in 2001. Based in Woodland, Calif., he focused on improving drought tolerance in corn and was a leader in the development of AquaMax drought tolerant corn hybrids which are still being continually developed and released. Schussler has also worked extensively with the Pioneer Trait Discovery group, evaluating transgenes for yield and yield stability in corn. He finished his career at Corteva Agriscience leading the North America Trait Discovery field science team, which is responsible for all trait development, including insect protection, herbicide tolerance and yield enhancement in all crops. He currently conducts consulting projects in the areas of field research optimization and grower outreach and lives in Marion, Iowa with his wife Kathryn.



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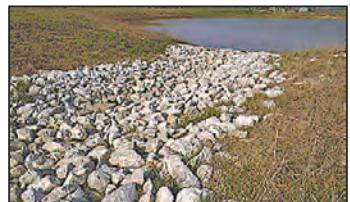
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Farm Depot to demo Pottinger's TERRASEM mulch drill

FARM NEWS MEDIA

Farm Depot, with locations in Caro, Ionia and Schoolcraft, will be participating in this year's AgroExpo tillage field demonstrations, showcasing the Pottinger TERRASEM C6 mulch drill with a working width of 20 feet, pulled by a Fendt 933.

Pottinger also offers a 13-foot, 26-foot and 30-foot working width models in the TERRASEM line and have been engineered in detail from the drawbar to the rear harrow tines.

With a top quality compact disc harrow, an effective tire packer chassis and optimized coulter rail, Pottinger has perfectly integrated seedbed preparation, soil firming and drilling across all four models.

The TERRASEM universal seed drill can be economically incorporated into any operating sequence, regardless of whether it is deployed for mulch drilling, mulch direct drilling or conventional drilling.

The machines deliver precision seed placement thanks to their parallel-guided DUAL DISC coulters with rear depth control press wheels. This configuration ensures unique ground tracking capability and uniform seed placement depth.

Central coulter pressure adjustment between 40 to 264 pounds per coulter, high-capacity seed hoppers and intelligent control systems also contribute to the success of the drilling process.

TERRASEM machines can be integrated into any seedbed preparation concept — unique ground tracking and uniform depth placement are always guaranteed. Combined with a two-row, low-draft disc harrow, the best tilth and mixing of the soil is ensured.

The combined packer and wheel unit is positioned between the disc harrow and the seed coulters. Even pressure distribution across the entire working width is achieved thanks to the set pressure on the seed coulter as the rear roller follows the contours of the terrain.

The chassis with its wide 17-inch tires consolidates the soil ahead of the drilling coulters — four rows at a time with a row spacing of 5 inches



or 3 rows with a 7-inch spacing. The machine is supported by all wheels at headlands when raised out of work. The chassis frame always remains in the same position; only the disc harrow and coulter rails are lifted.

Even in difficult conditions and at high speeds, the interplay between the tire packer, double-disc coulters and the coulter pressure results in exact

seed placement. With an inter coulter rail spacing of 12 inches and a 5-inch row spacing, optimum plant distribution density is ensured even with high volumes of harvest residues.

The TERRASEM C4 and C6 mulch drill models are equipped with a 106 cubic foot seed hopper, while the C8 and C9 models offer a 141 cubic foot sized hopper.

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Alderman's to demo the new Case IH 465 Speed-Tiller

FARM NEWS MEDIA

Alderman's, located in Lennon, will be participating in this year's AgroExpo tillage field demonstrations, showcasing the new Case IH 465 Speed-Tiller, a 3-point hitch mounted 15-inch working width tillage tool, according to Tim Alderman.

"This is unique as it is the only 3-point mounted high speed tillage tool offered by any of the domestic manufacturers," Alderman added. "It will be pulled behind a Case IH 310 MAGNUM tractor that produces roughly 300 horsepower. The optimal working condition is 2.5 inches at 10 miles per hour."

Designed to create a high-efficiency, agronomically correct seedbed that helps plants thrive, the Speed-Tiller is a true dual-season tool for primary and secondary tillage. It's built productive and rugged to withstand the harshest soil conditions. The Case IH Speed-Tiller high-speed disk is offered in the rigid mounted 465 models and in trailing



model configurations as the 475.

With the ability to make quick, easy adjustments, the Speed-Tiller is designed to help producers achieve a higher level of productivity at their speed, in their conditions, while competitive tools require higher speeds for optimal performance.

The launch of the Case IH Speed-Tiller high-speed disk comes as a result of the company's acquisition of the Australian agriculture implement manufacturer K-Line Ag. K-Line Ag

is the No. 1 tillage manufacturer in Australia, and the company designs robust and reliable products for some of the harshest soil conditions on Earth.

DIGS LIKE A DISK, FINISHES LIKE A FINISHER

The Case IH Speed-Tiller high-speed disk is offered in two models to meet the unique demands of each operation. The Speed-Tiller 465 high-speed disk

» CONTINUED ON PAGE 36

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» CONTINUED FROM PAGE 34

is a rigid mounted model, and the Speed-Tiller 475 high-speed disk offers a trailing configuration.

A true dual-season tool, the Speed-Tiller high-speed disk is designed to dig like a disk and finish like a finisher, maximizing the agronomic quality of the seedbed from surface to floor, for both primary and secondary tillage.

The ability to move more soil than traditional high-speed compact disks makes the Speed-Tiller high-speed disk ideal for fall tillage. Deeper soil penetration — from 3 to 6 inches — manages crop residue, controls weeds and destroys root balls.

And in spring, producers can complete their secondary tillage pass with the ability to run at shallower depths and create an ideal spring seedbed finish.

Producers can select between three conditioner attachments to achieve the field finish that best fits their fields: Crumbler roller, spring conditioner and rubber roller.

PRODUCTIVE AND RUGGED

Agronomic performance sets the Speed-Tiller 465/475 high-speed disks apart from competitors, delivering deeper soil penetration and aggressive residue management.

Indexed, independently mounted blades are laterally adjustable and work the entire soil profile, eliminating compacted valleys and humps between where blades run below the surface, and leaving a smoother, more level seedbed floor compared with competitive units.

This unique blade design also reduces plugging in wet soil conditions. An exclusive constant-level hitch delivers deep penetration, consistent disk depth and residue management, putting usable weight on the blades to run deeper or transitions to roller wheel to optimize tool finish.

Built rugged to handle high speeds, the Speed-Tiller high-speed disk is equipped with 5-bolt heavy-duty disk bearings and 1.25-inch-thick disk arms, which are the heaviest and strongest on the market and nearly double the thickness of competitive units.

Rubber torsions on the heavy-duty disk arm mount provide the needed down pressure to penetrate the hardest conditions with the needed protection in rocky soil conditions, while the hydraulically positioned conditioner attachment allows the operator to lift it in muddy conditions.

Ellens Equipment to showcase the new FR Forage Cruiser – a game changer

FARM NEWS MEDIA

Ellens Equipment, with locations in McBain, Beal City and Ithaca, will be participating in this year's AgroExpo forage harvester field demonstrations, showcasing the New Holland FR Forage Cruiser self-propelled chopper.

As of press time, Luke Ellens said the company is planning on bringing in a FR780 unit for the corn chopping field demos, but there may be a chance the company will receive a FR920 model in time for the show instead.

"New Holland has been at the forefront of the forage harvesting sector for over half a century with a whole host of pioneering industry firsts that have revolutionized the way you harvest today," Ellens said. "Now, New Holland is proud to introduce the new five-model FR Forage Cruiser line with powers ranging from 476 horsepower right up to the mighty 911 horsepower of the new flagship FR920."

Ellens says New Holland has married industry-leading chopping performance to outstanding operator comfort and added superior control with the IntelliView™ IV monitor.

Significantly improved capacity and productivity result from better crop flow and new engines. All this is wrapped up in a sleek, tapered design which has New Holland written all over it.

ULTIMATE CAPACITY

New Holland knows that throughput is king where forage harvesters are concerned and that owners dream in tons per hour. The new FR920 is powered by the all-new V20 8-cylinder V-layout engine developed by FPT Industrial.

This mighty beast will have you steaming up and down fields. ECO engine management mode works to ensure the engine is always fully loaded in relation to a preset engine speed to deliver optimal operating efficiency and performance.

Renowned Power

Cruise™ features ensure your FR's voracious appetite is satisfied in fields of varying crop density, and state-of-the-art headers eat grass, corn and whole biomass crop.

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The industry's widest crop channel from feedrolls to spout flipper means a thin, controlled crop mat for best-in-class chop quality. HydroLoc™ feedroll drive technology guarantees constant chop length independent of throughput and crop type. When combined with uniform kernel cracking from the most efficient crop processor around, you've got the ingredients for chopping the highest quality cattle feed.

LOWER OPERATING COSTS

Lower operating costs mean higher profits. All Forage Cruiser models (except the FR850) benefit from advanced ECOBlue™ HI-eSCR technology for Tier 4B compliance, which optimizes your fuel consumption, saving you money.

For example, the FR650 has 5%



increased capacity while consuming 21 percent less fuel than its larger FR700 predecessor model. Increasing productivity and reducing costs.

Advanced MetaLoc™ technology protects your FR from damaging metal, saving you money. The patented Variflow™ system can be changed from corn to hay position in under two minutes without the need for tools.

Saving you time, earning you money. The FR: a moneymaking machine.

ABSOLUTE DRIVING PLEASURE

Skilled forage harvester operators are hard to find. The FR offers a first-class operating environment to make them want to stay. Front, back, or side to side, your view is uninterrupted to improve visibility for accurate crop pickup and discharge.

The all-new cab interior has been completely redesigned to put the operator at the heart of the machine. The new armrest is an example of ergonomic excellence with all controls falling naturally into experienced hands.

Plus, it boasts the ultra-wide IntelliView™ IV color touchscreen monitor to keep all key operating parameters under control. The available IntelliFill™ feature fills the trailer for you so you can concentrate on the serious business of driving. Welcome aboard!

EXACTLY WHAT IT SAYS ON THE SHIELDING

The level of FR Forage Cruisers performance is immediately obvious to all users. How? It's on the side shielding. The 'FR' stands for forage harvester, while the following three numbers, 780 for example, refer to the maximum harvesting power rounded to the nearest 10.



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FFA students take charge in AgroExpo FFA Crop Management Challenge

FARM NEWS MEDIA

Another year, another FFA Crop Management Challenge.

And Adalee Thelen is again ready to compete — and possibly win — at this year's AgroExpo, held Aug. 17 and 18 in St. Johns.

Her Ionia FFA chapter won the corn division in 2020, taking home \$1,000 after garnering 456 of 500 points.

This year they'll compete in the soybean division.

"We were able to make all these different decisions about our specific corn plot in 2020," said Thelen, Ionia FFA chapter president. "We looked at what tillage we wanted to do, what fertilizers we wanted to apply, and at what rate and different times throughout the growing season."

The Crop Management Challenge is a competition for FFA chapters to enter and expand their members' agronomy skills. Contestants compete with other chapters to make sound agronomic, marketing and environmental decisions in a demonstration plot of corn.

Those involved in the competition are expected to attend the AgroExpo and occupy a tent by their plot area. There, participants explain their challenge plot decisions and provide a final report

based on yield data after the harvest. Contestants are graded on presentation, yield score, profit and a final report.

Ten corn and 11 soybean teams are competing in this year's contests.

"It was cool to be able to make these decisions on our own and then see how we did in the end — profit-wise and yield," Thelen told *Michigan Farm News*. "At the end, we presented what our plan was to judges and why we made the decisions we made."

Ionia FFA Advisor Jason Griffith said the hands-on challenge puts students in charge and teaches responsibility.

The Ionia team of four students worked with an agronomist to make informed planting decisions.

"A lot of our kids don't necessarily have a background in raising crops — at least in our area," he said. "We don't have a ton of kids who are producing corn or beans, so this gives them a real-life opportunity to help make those decisions. Even if they are raising those things, a lot of those kids don't get to make those decisions. Their dad or grandparent or whoever it is that they're working for is the one making that decision on fertilizer use or financial decisions."

Check out the sponsors of the AgroExpo FFA Crop Management

Challenge on page 39. Prior to the presentation, a sponsor's breakfast will be held, where students can interact with prospective clients.

Participating FFA chapters include Mason, Olivet, Ionia, Owosso, Alma, Coleman, St. Louis, Muskegon, Ovid Elsie, and Lapeer.

"It was a hard year for our kids in the sense that they didn't get to do things that they normally would have," Griffith said. "The fact that that we'll be able to discuss those things more clearly — to be able to work on it a little bit more — will be a positive change."

A year after COVID-19 caused the cancellation of many in-person events, AgroExpo's Burt Henry is glad the event is in person.

"We executed it in 2020," said Henry, AgroExpo's industry relations manager. "It's thanks to our sponsors who came through big time. This year we are excited to get back to normal, and I know the kids are too."



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HJV Equipment to demo new and improved Horsch Joker RX

FARM NEWS MEDIA

HJV Equipment, located in Chesaning, will be participating in this year's AgroExpo tillage field demonstrations, showcasing the new Horsch Joker RX series of high-speed compact disc, according to HJV Michigan sales representative John Murphy.

Since HORSCH first introduced the RT series of high-speed compact disc concept to North America, the Joker Series has become a necessary tool on many farms throughout the continent. Whether working in no-till, minimum-till, or conventional till farming practices, the Joker adds time-efficiency within the optimum agronomic work windows for residue management and precise seedbed preparation.

The Joker RX is an entirely new Joker platform which enhances performance while maintaining superior working



action and tillage quality with 6 different models and working widths ranging from 20'10" to 40'10" available.

The previous RollFlex finishing system has evolved into the new RingFlex system providing the same finishing and working quality of RollFlex with enhanced performance in variable field conditions. New frame design utilizes pivot pins instead of poly bushings for easier servicing.

Blade angle and mounting design ensures consistent soil engagement and provides uniform working action across the machine. Consistent thorough

horizontal fracture creates uniform soil structure, level working horizon, and provides uniform mixing of sized residue and soil, all foundations of an optimum seedbed.

Uniform soil working action maximizes efficacy of pre-emerge herbicides, thorough incorporation of granular fertilizers and manure while providing optimum seedbed soil structure.

Intense residue sizing provides more "open doors" for soil bacteria and fungi to initialize the residue decomposition process and unlock the nutrient and organic matter values remaining in post-harvest residues.

The Joker RX creates a consistent, firm soil structure across the working width of the machine which optimizes seed placement performance of planters and seeders. It provides optimum

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soil-to-residue-contact, which aids in accelerating residue decomposition.

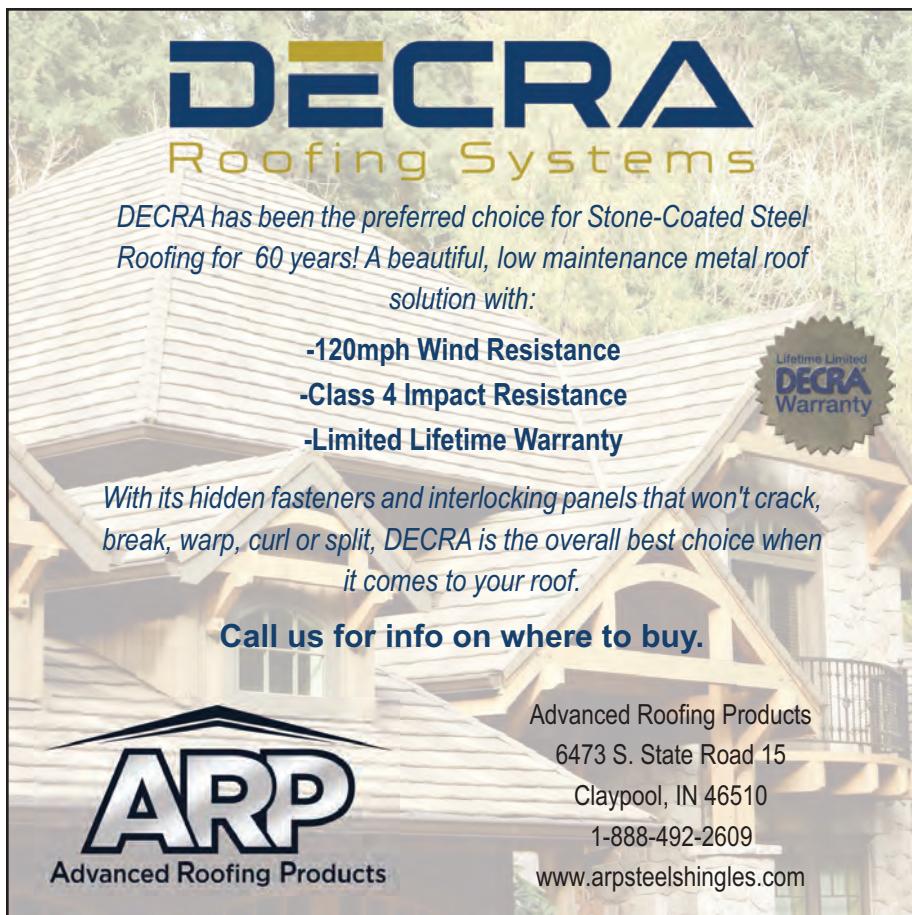
The Joker RX Series high-speed compact disc makes an ideal precision tool for both primary tillage and secondary tillage. Since pioneering of the high-speed compact disc in the North American market, the Joker has proven to be not only a versatile tool in many cropping situations but also necessary tool when working in adverse conditions.

ADVANTAGES IN PRIMARY TILLAGE APPLICATIONS

- Recondition and level fields after harvest as a first step to next season's seedbed.
- Excellent for sizing, incorporating, and mulching post-harvest residues to kick-start decomposition.
- Effectively secures residue to prevent losses due to wind.
- Sustainable post-harvest weed control.
- Proven for use in terminating a wide variety of cover crops.
- Leveling action helps with field conditioning by eliminating ruts, clumps, furrows, ridges, raised beds, and conditions after root crop harvesting.
- Depth is gauged by the RollFlex finishing system, providing full-width depth control for precise tillage.

ADVANTAGES IN SECONDARY TILLAGE/SEEDBED PREPARATION APPLICATIONS

- Creates ideal seedbed for higher speed planting and seeding.
- Creates uniform soil structure and density that enhances seed placement performance of seeders and planters.
- Ideal complementary concept for single pass seedbed preparation following disc rippers, moldboard plows, chisel plows, or sub-soilers.
- Provides additional residue sizing/incorporation to promote accelerated decomposition, unlocking nutrient value of residue for future crop growth.
- Thoroughly incorporates spread granular fertilizer and enhances the efficacy of pre-emerge herbicide applications.
- Sustainably controls early season weed pressures through thorough horizontal tillage.
- Firms and secures soil through consolidation to prevent wind erosion.



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