

STATE OF MICHIGAN



DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

MICHIGAN COMMISSION OF AGRICULTURE and RURAL DEVELOPMENT RESOLUTION RECONIZING STAR OF THE WEST MILLING COMPANY AS THE 2015 MICHIGAN AGRICULTURE EXPORTER OF THE YEAR

WHEREAS, Michigan's agricultural exports generate \$3.53 billion and support over 29,000 jobs both on the farm and off the farm in food processing, storage, and transportation; and

WHEREAS, Star of the West Milling Company located in Frankenmuth, Michigan, was established in 1870 and began exporting in the 1970s; and

WHEREAS, Star of the West Milling Company has proven its ability to provide high quality products to their international customers in the global market while also creating strong ongoing relationships with customers; and

WHEREAS, Star of the West Milling Company exemplifies Michigan's agricultural diversity and highlights the importance of food and agriculture exports to the Michigan food and agriculture economy; and

WHEREAS, Star of the West Milling exported dry beans, soft white and soft red winter wheat, and edible soybeans to nine countries, which are Mexico, Japan, Guatemala, Italy, Jamaica, Canada, South Korea, South Africa, and Malta.

THEREFORE BE IT RESOLVED that Star of the West Milling Company of Frankenmuth, Michigan is the 2015 Michigan Agriculture Exporter of the Year.

FUTHER BE IT RESOLVED that the Michigan Commission of Agriculture and Rural Development congratulates Star of the West Milling Company as the 2015 Michigan Agriculture Exporter of the Year and for their long history as a manufacturer and exporter in Michigan.

Adopted July 21, 2015
Bronson, Michigan


Trever Meachum, Chair

Gladiolus Rust

Regulatory Update July 2015



Michigan Department of Agriculture & Rural Development

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Preview

- Gladiolus rust background
- Recent regulatory actions by USDA
- Potential risk for spread to Michigan
- Possible solutions for Michigan growers



Background

- Gladiolus Rust, *Uromyces transversalis*
- Affects tropical members of Iridaceae family
 - Gladiolus, Crosmia, Tritonia & Watsonia
- Requires green living host material to survive
- Severely damaged plants do not flower



Background - Distribution

- Indigenous to eastern & southern Africa (1876)
- GR has spread to other areas:
 - Europe, South & Central America, Australia & NZ
- Known to occur in Mexico
- First reported in California in 1996. Subsequent detection 2006; control actions
- Confirmed in Florida in 2006



Healthy vs Infected leaves





USDA Actions

- Eradication attempts in FL & CA
- Gladiolus Rust National Management Plan
- Import requirements on commercial shipments
- May 2015 – Ceased domestic response



Import Regulations/Risk

- Mexican-origin material must have leaves removed & inspection certificate
- Inspected by Customs @ 1 box/consignment
- Personal shipments prohibited from Mexico, Columbia, Costa Rica, Guatemala
- Other rust pathogens regulated



Future risks

- Immediate threat is from California glads
- Cut glads w/ leaves carry rust spores
- Infected glads left in cemeteries can serve as a source of rust spores
- Spores travel on wind to growing hosts nearby



Future risks cont'd.

- Long-term the USDA will remove entry requirements for gladiolus rust
- Continued USDA requirements for other rusts
 - *Puccinia gladioli*, *Puccinia mcleanii*, *Uredo gladioli-buettneri*, *Uromyces gladioli*, and *Uromyces nyikensis*



Options for Michigan

- State Exterior Quarantine – regulates US origin material entering Michigan
- Seek regional collaboration to protect growers in nearby states
- Federally Recognized State Managed Phytosanitary Program – can regulate foreign origin material
- Local protected area in southwest Michigan



Draft quarantine features

- Similar requirements to those for gladiolus from Mexico
- Require that leaves be removed prior to shipment to Michigan in April-October
- Certificate of inspection/proof of origin



Additional Information

- Mike Bryan
- bryanm@michigan.gov
- 517-284-5648 desk
- MDARD quarantines web page:
www.michigan.gov/pestquarantines

Gladiolus Rust Regulatory Challenges

Gladiolus Rust (GR) is a plant disease of quarantine significance in the United States and Europe. The worldwide distribution includes Africa where it was first described in 1876. The major pathway for movement of GR is trade in cut flowers. The current distribution of the disease includes much of Africa, Europe, Central America, South America, the Caribbean, Australia and New Zealand. GR was confirmed on two commercial gladiolus farms in Florida in 2006. Previously, GR had been detected in commercial shipments of cut gladiolus from Mexico in 2004; and, had been detected in California in 1996 in three residential gardens and one nursery.

GR is caused by a fungal pathogen *Uromyces transversalis* which infects tropical members of the Iridaceae family and is most damaging to hybrid cultivars of gladiolus. The disease is expressed as orange pustules that develop transversely across the width of infected leaves. The pathogen requires living green host plant material to survive. The disease can be extremely damaging in nurseries where severely infected plants fail to produce flowers in the absence of aggressive fungicide treatments.

In October 2014 USDA-APHIS released a document “Analysis of Options for the Gladiolus Rust (*Uromyces transversalis*) Program”, which outlined regulatory options for managing GR in the United States. The document concluded that GR has spread throughout its natural range in the U.S. (California and Florida); growers there have internalized treatment costs; and, that the high cost of complying with federal regulatory requirements likely outweighs any benefits of continuing federal requirements. On May 21, 2015 USDA-APHIS notified state regulatory officials that it will no longer take domestic action, which essentially eliminates any federal requirements for regulatory fungicide treatment for gladiolus production in California and Florida. USDA-APHIS still has import requirements in place for cut flowers entering the U.S. from known infected countries.

The US imports an average of 10.5 million gladiolus spikes, of which over 90% originate from Mexico. Entry criteria include the following:

1. Commercial shipments are only permissible under inspect and release at point of entry.
2. Commercial cut flowers must be absent of leaves.
3. Leaves must be removed before the cut flowers reach the port of entry.
4. Movement of non-commercial cut flowers is prohibited.
5. Shipments must be accompanied by a phytosanitary certificate with specific Additional Declarations attesting to being inspected and found free of *Uromyces transversalis*.

The decision of USDA to eliminate domestic GR regulatory actions increases risk of introduction of GR into gladiolus production areas in the Midwest. Although GR is not expected to

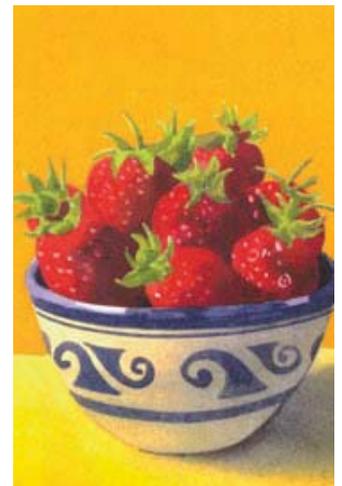
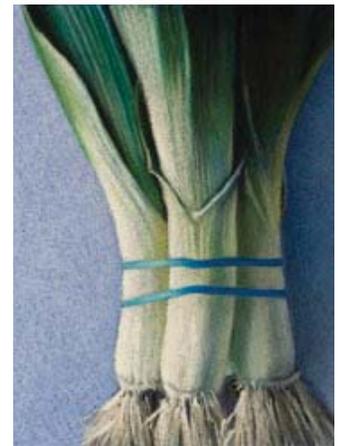
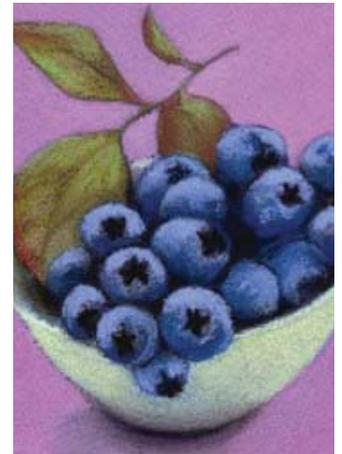
permanently establish in the Midwest, ephemeral establishment could occur through the introduction of infected cut flowers from California or Florida during the growing season. Michigan is the major producer of cut gladiolus and of gladiolus corms. The industry leader in Michigan has over 875 acres in production in Michigan. The leading firm has production arrangements with producers in nearby Indiana and Illinois who also grow for the cut flower market. Another firm is a major producer of gladiolus corms. Should GR infected material lead to an epidemic in Midwest production fields, especially that in Michigan, it is anticipated that treatment costs would adversely affect production to the point of economic failure of the affected growers .

The establishment of an exterior quarantine or similar requirements appears to be necessary to protect this specialty crop in Michigan. The Michigan Department of Agriculture and Rural Development is exploring options to protect this industry. It is highly desirable that nearby states, whose growers are inextricably linked to Michigan firms, develop a regional regulatory plan to prevent movement of this disease into the Midwest.

MICHIGAN PRODUCE AVAILABILITY

Source: Center for Regional Food Systems, Michigan State University

CROP	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
	FIELD FRESH		EXTENDED SEASON					STORAGE				
Scallions/Green Onions	[Green]					[Yellow]		[Green]				
Spinach	[Green]				[Green]	[Yellow]		[Green]				
Sprouts (Alfalfa, Bean, Etc.)	[Green]											
Squash, Summer	[Green]					[Yellow]		[Green]				
Squash, Winter	[Green]				[Yellow]		[Green]					
Sweet Potatoes	[Green]											
Tomatoes	[Green]					[Yellow]		[Green]				
Turnips	[Green]				[Green]	[Yellow]		[Green]				
Basil	[Green]											
Chives	[Green]				[Yellow]		[Green]					
Cilantro	[Green]					[Yellow]		[Green]				
Dill	[Green]					[Yellow]		[Green]				
Mint & Oregano	[Green]				[Yellow]		[Green]					
Parsley	[Green]					[Yellow]		[Green]				
Rosemary	[Green]					[Yellow]		[Green]				
Sage & Thyme	[Green]					[Yellow]		[Green]				
Apples	[Green]					[Yellow]		[Green]				
Apricots	[Green]						[Yellow]		[Green]			
Blackberries	[Green]							[Yellow]		[Green]		
Blueberries	[Green]							[Yellow]		[Green]		
Cantaloupe, Honeydew	[Green]						[Yellow]		[Green]			
Cherries, Tart	[Green]							[Yellow]		[Green]		
Cherries, Sweet	[Green]							[Yellow]		[Green]		
Cranberries	[Green]									[Yellow]		[Green]
Grapes	[Green]								[Yellow]		[Green]	
Nectarines	[Green]							[Yellow]		[Green]		
Peaches	[Green]							[Yellow]		[Green]		
Pears	[Green]					[Yellow]		[Green]				
Plums	[Green]							[Yellow]		[Green]		
Raspberries	[Green]						[Yellow]		[Green]			
Rhubarb	[Green]				[Yellow]		[Green]					
Strawberries	[Green]					[Yellow]		[Green]				
Watermelon	[Green]							[Yellow]		[Green]		



Michigan Apple Crisp

Nonstick cooking spray
4-5 medium apples, cored and sliced
¼ cup quick-cooking oats
¼ cup flour
½ cup brown sugar (or ½ cup granulated sugar, if preferred)
1 tablespoon cinnamon
¼ cup butter or margarine

Preheat the oven to 350°F. Coat the bottom and sides of a square 8 x 8-inch baking pan with nonstick cooking spray. Spread apple slices on the bottom of the pan. Cut the butter into small pieces and put in a medium sized bowl. Add the oats, flour, sugar and cinnamon. Using a pastry cutter, cut the butter into the flour mixture until it looks like small crumbs. (If you don't have a pastry cutter, hold two table knives in each hand and "chop" the butter into the flour mixture pulling the butter through the flour mixture in opposite directions.) Sprinkle the mixture over the top of the apples. Bake for about 20 minutes.

Recipe adapted from SNAP-ED Connection Recipe Finder

Wash your hands!

Cleanliness is a major factor in preventing foodborne illness. To help prevent foodborne illness, wash hands with warm, soapy water for 20 seconds before and after handling food.

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Fruity Grape Smoothie

1 cup 100% grape juice
1 cup plain lowfat yogurt
1 cup frozen grapes, stems removed
1 cup mixed frozen fruit (try strawberries, raspberries, blueberries, blackberries, etc.)

Add all ingredients together in a blender. Blend well.

Source: MDARD staff

Get more food safety tips!

The U.S. Department of Agriculture has a food safety expert on hand to answer your questions every day between 10 a.m. and 4 p.m. EST! Visit <http://www.foodsafety.gov/experts/askkaren/index.html> to "Ask Karen".

You can also reach an expert by phone (1-888-674-6854); by email (mpholine.fsis@usda.gov); or on your mobile phone (m.askkaren.gov).

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Serves 4

Chipotle and Lime Roasted Potatoes

1-1/2 to 2 pounds small new potatoes
1 tablespoon + 2 teaspoons extra virgin olive oil
1/2 teaspoon kosher salt
1 chipotle pepper from a can of chipotle peppers in adobo sauce
2 teaspoons adobo sauce
1 garlic clove, minced
1 tablespoon lime zest
1 tablespoon fresh lime juice
2 tablespoons fresh chopped cilantro

Preheat oven to 400°F. Cut the potatoes in half and place the halved potatoes on a baking sheet. Drizzle 1 tablespoon of olive oil over the potatoes and sprinkle with salt. Be sure potatoes are thoroughly coated with oil and salt. Place in the oven for 30 to 35 minutes, stirring once, until they are golden brown and can be easily pierced with a fork. While the potatoes are cooking, mince the chipotle pepper. In a large bowl whisk together the chipotle pepper adobo sauce, garlic, lime zest, lime juice and remaining 2 teaspoons of olive oil, until combined. Once the potatoes are done and still hot, pour them into the chipotle lime dressing. Add cilantro and gently stir to combine, making sure every potato is covered. Plate and serve.

Courtesy of U.S Potato Board

Don't forget to wash!

Wash your cutting boards, dishes, utensils, and counter tops with hot soapy water after preparing each food item and before you go on to the next food.

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Apples

Michigan apples are one of the largest and most valuable crops grown in the state.

Michigan provides a wide variety of apples and processes more apples than any other state for use in pies and for sale as fresh-cut slices. Michigan also processes apples into applesauce, fresh and shelf-stable apple cider, apple juice, and apple cider vinegar.

Apples are a good source for fiber and vitamin C. You can get approximately 20% of the daily recommendation for fiber from one medium apple.

Keep 'em fresh!

Do not wash apples until ready to eat. Apples should be stored in the refrigerator. Keeping apples at room temperature will allow them to get mushy more quickly.

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Grapes

Michigan is the fourth largest grape-producing state in the nation. Grapes are utilized for juice, jams, jellies and wine production. Concord and Niagara grapes are grown primarily in Southwest Michigan and are used for juice production. Harvesting of Michigan grapes starts toward the end of August and may extend until November for late ripening varieties.

Grapes provide vitamin C, and some of the B vitamins, especially thiamin and riboflavin.

Eat real fruit!

Offer fruit pieces and 100% fruit juice to children. There is often little fruit in "fruit-flavored" beverages or chewy fruit snacks. Frozen juice bars (100% juice) make a healthy alternative.

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Potatoes

Michigan grows potatoes all across the state, from Monroe County to Iron Mountain in the Upper Peninsula. Michigan is the nation's leading producer of potatoes for potato chip processing. Potatoes provide fiber and are rich in potassium and vitamin C.

Enjoy home-prepared foods

Cooking at home more often allows you to be in control of what's in your food, including the amount of salt. Instead of reaching for the salt shaker, try replacing salt with fresh herbs and other spices.

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Asparagus, Potato, & Onion Frittata

- 2 tbsp. of olive oil
- 1/2 c chopped onion
- 2 medium size potatoes diced
- 1/4 tsp ground black pepper
- 1/4 tsp salt
- 1 lb. of asparagus with bottom trimmed off, cut into 1 inch pieces
- 6 eggs beaten with 1 tbsp. milk added
- 1 c low fat shredded cheddar cheese

Preheat an oven to 350 degrees F. Grease a 9x13 inch baking dish.

Heat the olive oil in a large skillet over medium heat; add the potatoes and onions and cook until browning begins. Add the asparagus, salt and pepper. Cook until the asparagus is tender then transfer to baking dish. Pour the eggs and milk mixture over the vegetables evenly. Sprinkle the cheddar cheese on top of the mixture. Bake for 20-25 minutes.

Source: MDARD staff

Wash fruits and veggies—but not meat, poultry, or eggs!

Why not wash meat, poultry, and eggs? Washing raw meat and poultry can actually help bacteria spread, because their juices may splash onto (and contaminate) your sink and countertops. All commercial eggs are washed before sale. Any extra handling of the eggs, such as washing, may actually increase the risk of cross-contamination, especially if the shell becomes cracked.

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Ethiopian Cabbage

- 1/2 cup olive oil
- 4 carrots, thinly sliced
- 1 onion, thinly sliced
- 1 teaspoon sea salt
- 1/2 teaspoon ground black pepper
- 1/2 teaspoon ground cumin
- 1/2 teaspoon ground turmeric
- 1/2 head cabbage, shredded
- 5 potatoes, peeled and cut into 1-inch cubes

Heat the olive oil in a skillet over medium heat. Cook the carrots and onion in the hot oil about 5 minutes. Stir in the salt, pepper, cumin, turmeric and cabbage, and cook another 15 to 20 minutes. Add the potatoes and cover. Reduce heat to medium-low and cook until potatoes are soft, about 20 to 30 minutes.

Serves 5

Source: MDARD staff

Refrigerate perishable foods within two hours

Cold temperatures slow the growth of illness causing bacteria, so it's important to chill food promptly and properly. Remember to store leftovers within two hours as well. By dividing leftovers into several clean, shallow containers, you'll allow them to chill faster.

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Roasted Vegetables with Michigan Carrots

- 6 carrots, cut in 1/2-inch pieces
- 3 zucchini, cut in 1-inch pieces
- 10 whole mushrooms
- 4 potatoes, chunked
- 4 tablespoons olive oil
- 1/2 teaspoon garlic powder
- 2 tablespoons lemon juice
- 3/4 teaspoon rosemary, ground
- 1 teaspoon basil

Heat oven to 425°F. Spray two baking sheets with non-stick cooking spray. Combine the olive oil, garlic powder, lemon juice, rosemary and basil in a small bowl and mix well. Put the prepared vegetables in a large bowl. Pour oil mixture over the vegetables and stir well. Divide vegetable mixture evenly between the two baking sheets.

Bake for 15 minutes. Turn the vegetables and bake for 10 more minutes.

Optional: Sweet potatoes may be substituted for white potatoes.

Recipe courtesy of the Michigan Ag Council

Separate: Don't Cross Contaminate

Cross-contamination is how bacteria can be spread. When handling raw meat, poultry, seafood, and eggs, keep these foods and their juices away from ready-to-eat foods like fruits and vegetables. Always start with a clean scene — wash hands with warm water and soap. Wash cutting boards, dishes, countertops, and utensils with hot soapy water.

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Makes 4-6 servings

Asparagus

Michigan ranks third in the nation for asparagus production. The long green stalks appear in early Spring. Much of Michigan's asparagus is grown along Lake Michigan Shoreline where the climate and soil make for excellent production. Unlike in other states, Michigan asparagus is hand-snapped above the ground which yields a more tender and flavorful product.

Asparagus offers a great amount of nutrition. Based on a 1 cup serving, asparagus provides a rich source of vitamins A and K, and provides at least 10% of the daily value (DV) for vitamins C, folate, thiamin and riboflavin, fiber and iron. Other nutrients with at least 5% of the DV are vitamins B6, niacin and the mineral potassium.

Enjoy each other while enjoying family meals!

Keep meal time relaxed to nourish your body and help your family make stronger connections.

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Cabbage

Michigan produces several varieties of cabbage in staggered harvests. Fresh cabbage is available June through December, but you can find processed cabbage products, like sauerkraut throughout the year.

Cabbage is low in calories and also low in saturated fat and cholesterol. Cabbage is rich in, vitamins C and K, and a source of folate and fiber.

Get creative with your salad!

Toss in red cabbage, shredded carrots, strawberries, spinach, watercress, orange segments, or sweet peas for a colorful, flavorful, fun salad.

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Carrots

Carrots are grown in Michigan for processing and fresh market. Fresh market carrots are harvested from late July through November, while carrots for processing are harvested from early October through late November.

A one cup serving of chopped carrots has 52 calories and carrots are an excellent source of vitamin A, important for eye health. Carrots offer some B6 are a good source of fiber, potassium, vitamins C and K.

Make half your plate fruits and vegetables!

Choose red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.

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Spinach Salad with Strawberries and Pecans

- 1/2 cup chopped pecans
- 4 cups baby spinach, washed
- 6 ounces strawberries, hulled and quartered (about 1 cup)
- 1/4 cup thinly sliced red onion
- 1 ounce goat cheese, crumbled
- 3 tablespoons balsamic vinegar
- 2 tablespoons fresh lemon juice
- 1 tablespoon Dijon mustard
- 1/2 cup extra-virgin olive oil
- Salt and pepper

Preheat oven to 325°F. Place pecans on a rimmed baking sheet and bake until golden and fragrant, about 5 to 7 minutes, stirring halfway through. Transfer to a bowl and set aside to cool. Mix spinach, strawberries, onion and goat cheese in a large bowl. In a separate bowl, whisk together balsamic vinegar, lemon juice and mustard. Add oil in a steady stream, whisking constantly, until combined. Season with salt and pepper. Toss salad with dressing, top with pecans and serve.

Recipe courtesy of the Michigan Agriculture Council

Keep it cool (and clean)!

Store perishable fresh fruits and vegetables (like strawberries, lettuce, herbs, and mushrooms) in a clean refrigerator at a temperature of 40°F or below. Refrigerate all produce that is purchased pre-cut or peeled to maintain both quality and safety.

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Black Bean Corn Salsa

- 1 15-ounce can black beans drained and rinsed
- 2 15-ounce cans corn drained (1 can yellow and 1 can white corn)
- 1 large tomato, seeded and chopped
- 1 yellow bell pepper, seeded and chopped
- 1/2 medium red onion, diced
- 3 green onions, finely sliced
- 2 tablespoons finely chopped cilantro
- 1-1/2 teaspoons ground cumin
- 1 tablespoon lime juice
- 2 avocados, peeled, pitted and chopped
- Salt and pepper
- 2 tablespoons olive oil (optional)

Combine all ingredients in a bowl. Stir lightly, and serve with your favorite tortilla chips.

Source: MDARD staff

Always Wash

Even if you plan to peel produce before eating, it is still important to wash it first so that dirt and bacteria are not transferred from the knife onto the edible portion of the fruit or vegetable.

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Mediterranean Lentils and Rice with Fried Onions

- 1 large white or yellow onion, sliced into thin rings
- 6 tablespoons olive oil
- 1-1/3 cups green lentils (uncooked)
- 3/4 cup long-grain white rice (uncooked) – brown rice may be substituted for white rice but cooking time may be increased
- 1/4 cup plain yogurt
- Curry powder, garlic powder or ground cayenne pepper, to taste (optional)
- Salt and pepper, to taste

Heat the olive oil in a large skillet over medium heat. Stir in the onions, and cook until onions are browned. Remove from heat and set aside. Place lentils in a medium saucepan with enough lightly salted water to just cover the lentils. Bring to a boil, reduce heat, and simmer about 15 minutes. Stir rice and enough water to cover the rice into the saucepan with the lentils. Season the lentil/rice mixture with curry powder, garlic powder, ground cayenne pepper, salt and pepper, as desired. Cover saucepan and continue to simmer 15 to 20 minutes, until rice and lentils are tender. Mix half the onions into the lentil mixture. Top with yogurt and remaining onions just before serving.

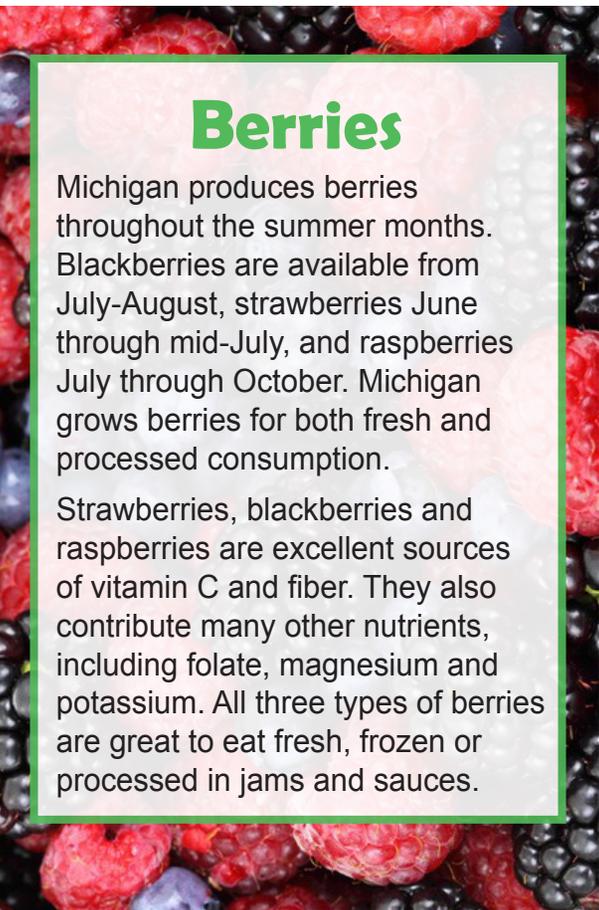
Source: MDARD staff

Marinade Alert!

Marinades used on raw meat, poultry, or seafood can contain harmful bacteria. Don't reuse these marinades on cooked foods - unless you boil them before applying. Never taste uncooked marinade or sauce that was used to marinate raw meat, poultry, or seafood.

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Berries

Michigan produces berries throughout the summer months. Blackberries are available from July-August, strawberries June through mid-July, and raspberries July through October. Michigan grows berries for both fresh and processed consumption.

Strawberries, blackberries and raspberries are excellent sources of vitamin C and fiber. They also contribute many other nutrients, including folate, magnesium and potassium. All three types of berries are great to eat fresh, frozen or processed in jams and sauces.

Buy now, Use later!

Wash berries in cold water, drain well, spread on a cookie sheet, and freeze them overnight before transferring berries to an air-tight container. Store berries at 0°F or below and thaw them in the refrigerator to preserve their quality.

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Sweet Corn

Sweet corn is the corn you eat off-the-cob and enjoy at many summer events. Michigan sweet corn is available throughout the state in several varieties from July through September. Michigan also grows a lot of field corn, which is used for livestock feed, industrial products, and biofuels like ethanol.

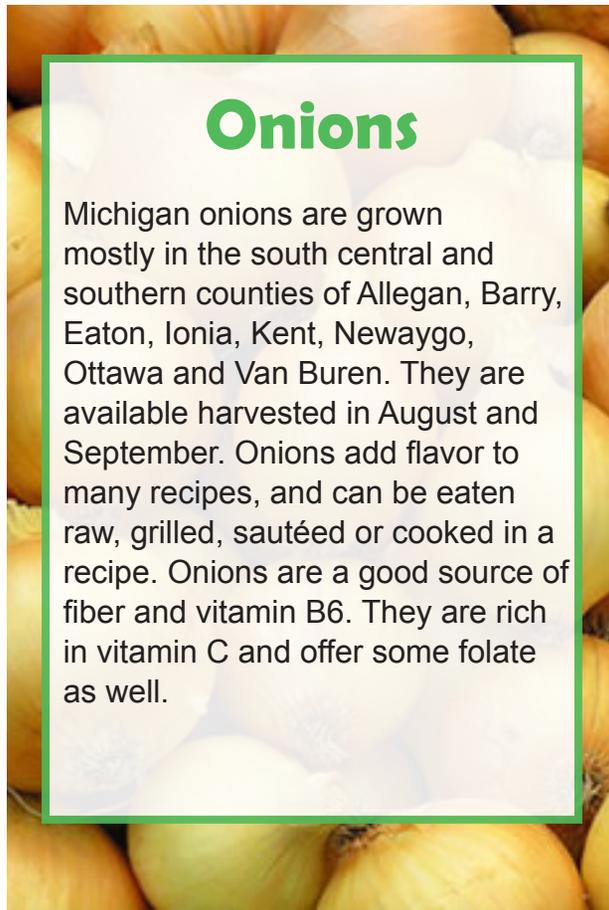
Sweet corn provides a good amount of potassium and is a rich source of fiber, magnesium, zinc and many of the B vitamins. Sweet corn also contains the highest amount of vitamin A of any cereal grain.

Check the freezer aisle!

Frozen vegetables are quick and easy to use and are just as nutritious as fresh veggies. Try adding frozen corn, peas, green beans, spinach or sugar snap peas to some of your favorite dishes, or eat them as a side dish.

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Onions

Michigan onions are grown mostly in the south central and southern counties of Allegan, Barry, Eaton, Ionia, Kent, Newaygo, Ottawa and Van Buren. They are available harvested in August and September. Onions add flavor to many recipes, and can be eaten raw, grilled, sautéed or cooked in a recipe. Onions are a good source of fiber and vitamin B6. They are rich in vitamin C and offer some folate as well.

Look for the Layers

When purchasing whole, peeled onions, look for onions with outside layers that do not show signs of dehydration.

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Celery & Carrot Soup

- 2 Tbsp olive oil
- 1 onion, minced
- 2 carrots, sliced thinly
- 1 c. celery, sliced thinly
- ½ tsp dried tarragon
- 2 c. vegetable broth
- ½ c. white wine

In medium saucepan heat oil over medium-high heat. Sauté onions until tender, approximately 5 minutes. Add carrots, celery and tarragon, stirring until carrots are tender, another 5 minutes. Slowly stir in vegetable broth and wine, and bring to a boil. Reduce to a simmer and cook 15 minutes more. Serve hot.

Source: www.celeryrecipes.org

Buy Right!

You can help keep produce safe by making informed decisions at the grocery store. Purchase produce that is not bruised or damaged. If buying pre-cut produce, choose only items that are refrigerated or surrounded by ice. Bag fruits and vegetables separately from meat, poultry or seafood.

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Produced with USDA Specialty Crop Block Grant funds.

Cherry Bran Muffins

- ½ cup all-purpose flour
 - ½ cup whole wheat flour
 - 1 tablespoon baking powder
 - ¼ teaspoon salt
 - ¼ teaspoon cinnamon
 - ½ cup dried cherries, coarsely chopped
 - 1 cup skim milk
 - 2 tablespoons canola oil
 - 2 tablespoons honey
 - 3 egg whites
 - 1 cup all-bran cereal
- Serves 12

Preheat the oven to 400°F. Spray a 12-cup no-stick muffin pan with no-stick spray or line the cups with paper liners. In a medium bowl, combine the all-purpose flour, whole wheat flour, baking powder, salt and cinnamon. Add the dried cherries to the dry ingredients and set aside. In a small bowl, stir together the milk, oil, honey and egg whites. Stir in the cereal and let sit for 10 minutes. Gently stir the milk mixture into the flour mixture just until a lumpy batter forms. Divide the batter equally among the prepared muffin cups, filling them to two-thirds full. Bake for 20 to 25 minutes, or until the muffin tops are lightly browned and a toothpick inserted in the center comes out clean. Cool in the pan on a wire rack for 10 minutes. Remove from the pan and serve warm or cool completely.

Source: www.choosecherries.com

Wash Surfaces Often

Consider using paper towels to clean up kitchen surfaces. If you use cloth towels wash them often in the hot cycle of your washing machine.

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Blueberry Cobbler

- 4 cups fresh or frozen (not thawed) blueberries
- 1 tablespoon cornstarch
- 2 tablespoons lemon juice
- 1 cup all-purpose flour
- ¾ cup turbinado (raw) sugar or granulated sugar, divided
- 1 teaspoon baking powder
- ¼ cup milk
- 3 tablespoons butter, melted
- ¼ cup boiling water

Yield: 8 portions
Per portion: 209 calories; 39 g carbohydrate; 6 g total fat (3 g saturated fat); 2 g fiber

Preheat oven to 350°F. Spread blueberries in ungreased 8- or 9-inch square baking dish or pan. Sprinkle with cornstarch; drizzle with lemon juice; set aside. In medium bowl, combine flour, ½ cup sugar, baking powder and salt. Add milk and butter; stir just until combined (not smooth). Drop mounds of dough onto blueberries. Pour boiling water over dough and fruit. Sprinkle with remaining ¼ cup sugar. Bake until biscuits are golden brown and blueberries are bubbly, about 45 to 50 minutes. Serve warm or at room temperature.

Recipe courtesy of U.S. Highbush Blueberry Council

Keep fruits safe!

Rinse fruits before preparing or eating them. Under clean, running water, rub fruits briskly to remove dirt and surface micro-organisms. After rinsing, dry with a clean towel.

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Produced with USDA Specialty Crop Block Grant funds.

Celery

Michigan ranks second among the states in celery production. Fresh celery is available from June through October, and available throughout the year in processed forms.

Celery is low in calories, 20 calories in 2 large stalks. It is rich in vitamin K, and is a source of fiber, potassium and vitamins A, C, and folate.

Choose to eat some foods more or less often!

Choose more vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products. Cut back on foods high in solid fats, added sugars, and salt.

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Cherries

Michigan produces more cherries than any other state! Fresh sweet cherries are available from late June to August, but processed tart and sweet cherries are available throughout the year in canned, frozen, dried or juice form.

Cherries provide antioxidants and are a good source of vitamins C, potassium and fiber.

Choose whole grains!

Make at least half of the grains you eat whole grains – such as bread, tortillas, pasta and cereals. Whole grains are good for your heart and digestion, and can help you maintain a healthy weight and good overall health. Choose foods with “100% whole wheat” or “100% whole grains” on the label.

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Blueberries

Michigan leads the nation in the production of blueberries! Fresh Michigan blueberries are available from late July to October. Frozen blueberries, dried blueberries and blueberry juice can be enjoyed throughout the year.

A one-cup serving of blueberries contains only 80 calories and virtually no fat. Blueberries are a good source of dietary fiber, and rich in vitamins C, K and manganese. Blueberries contain phytonutrients called polyphenols. Research suggests these polyphenols work as antioxidants and as anti-inflammatory properties.

Think about taste!

Freezing blueberries for year round taste is easy to do. You can pop them into the freezer unwashed in a plastic sealed bag. When ready to use them, rinse them well. If you choose to rinse them before freezing be sure they are dry before freezing.

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Chocolate Chip Pumpkin Bread

- 2 cups all-purpose flour
 - 1 cup whole wheat flour
 - 2 teaspoons baking soda
 - 1½ teaspoons salt
 - 1 teaspoon ground cinnamon
 - 1 teaspoon nutmeg
 - 1 (15 oz. can) pumpkin puree (not pumpkin pie mix)
 - 4 eggs, beaten
 - 1 cup canola oil
 - ½ cup skim milk
 - 3 cups sugar
 - 1 cup semi-sweet chocolate chips
- Preheat oven to 350°F. Grease and lightly flour three 8x4-inch loaf pans. In a large bowl, mix together pumpkin puree, eggs, oil, milk and sugar until well blended. In a separate bowl, whisk together the flour, baking soda, salt, cinnamon and nutmeg. Stir the dry ingredients into the pumpkin mixture until just blended. Fold in chocolate chips. Pour into the prepared pans. Bake for about 50 minutes. Loaves are done when a toothpick inserted in center comes out clean.

Source: MDARD staff

Micro-safe!

Make sure there are no cold spots in food (where bacteria can survive) when cooking in a microwave oven. For best results, cover food, stir and rotate for even cooking. If there is no turntable, rotate the dish by hand once or twice during cooking.

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Fresh Michigan Cranberry Orange Relish

- 1 12 ounce package fresh cranberries
 - 1 medium orange
 - ½ to 1 cup sugar
- Place fresh cranberries in a colander and wash thoroughly with cold water, and dry with clean paper towel. Wash orange under cold running water, cut the orange into quarters and remove seeds (do not peel). Place the cranberries and orange quarters in a food processor and pulse for a few seconds, until coarsely chopped. Stir as needed, to make sure all fruit is chopped. Sweeten with sugar, to taste, starting with about ½ cup of sugar and adding more if needed. Stir well. This vitamin C-packed relish is best when refrigerated for a few hours before serving.

Source: MDARD staff

Keep It Clean!

Always wash hands with warm water and soap for 20 seconds before and after handling food. Cutting boards, utensils, and countertops can be sanitized by using a solution of 1 tablespoon of unscented, liquid chlorine bleach in 1 gallon of water.

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Ratatouille

- 1/4 cup olive oil
 - 1 medium onion, sliced
 - 2 bell peppers cut into one-inch squares
 - 2 eggplant, cut into ½-inch cubes
 - 2 zucchini, cut into ½-inch cubes
 - 2 yellow summer squash, cut into ½-inch cubes
 - 3 cloves garlic, minced or crushed
 - Approximately 2 pounds of tomatoes, chopped
 - 1 tablespoon fresh thyme
 - 1/4 cup chopped fresh basil
 - 1 teaspoon chopped parsley
 - 2 teaspoon minced tarragon
 - Salt and pepper to taste
- In a large skillet, gently sauté onion, peppers, eggplant and squashes in olive oil and simmer until tender. Add garlic, tomatoes and herbs. Simmer 20 min.
- Servings: 4-6

Source: MDARD staff

Seperate Your Dishes

Never place cooked food on a plate that previously held raw meat, poultry, seafood, or eggs. This could cause cross contamination, which is how bacteria can be spread. When handling raw meat, poultry, seafood or eggs, keep these foods and their juices away from ready-to-eat foods.

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Pumpkins

Michigan typically harvests pumpkins in September and October. Some varieties are used for jack-o-lanterns at Halloween, but others are a delicious, nutritious food that can be canned and used year round.

Pumpkin provides a good source of potassium and is an excellent source of fiber, vitamins A, C and K. Pumpkin provides beta carotene, an antioxidant that is converted to vitamin A in the body.

Plan ahead & cook smart!

Prepare and freeze vegetable soups, stews or other dishes in advance. This saves time and money. Add leftover vegetables to casseroles or blend them to make soup. Overripe fruit is great for smoothies or baking.

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Cranberries

Michigan's climate is ideal for cranberry production. They are grown throughout the state including the Upper Peninsula, the northern part of the Lower Peninsula, and in the southwestern Lower Peninsula. Michigan's cranberry industry is expected to expand significantly in the coming years.

Cranberries are rich in antioxidants, vitamin C and a good source of fiber.

Eat a variety of veggies every day!

Top cereal with peaches, berries or bananas. Try mixing fruit in with fat-free or low-fat yogurt. Pack fruit for a snack or lunch. At dinner include strawberries, grapes, dried cherries or dried cranberries in a tossed salad.

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Squash

Michigan ranks as one of the top states in the nation for the production of squash. There are two types of squash: winter and summer.

Winter squash is harvested in late summer through fall. Some of the popular types of winter squash include butternut, buttercup, acorn, spaghetti, and hubbard. Winter squash contains fiber and beta carotene. It is a good source of potassium and an excellent source of vitamins A and C.

Summer squash is available in the months of July through September. Some types of summer squash include zucchini, yellow and scallop (also known as patty pan). Summer squash contains folate, potassium and riboflavin and is a good source of vitamin B6. A one-cup serving of summer squash provides 32 percent of the recommended daily amount for vitamin C.

Careful Storage

Never store uncut potatoes, onions (excluding green onions), or winter squash in the refrigerator! Store in a cool, dark place at 45 to 50°F, just above refrigerator temperature. If they must be stored at room temperature, use within one week.

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Baked Parmesan Tomatoes

4 tomatoes, halved
horizontally
1/4 cup freshly grated
Parmesan cheese
1 teaspoon chopped fresh
oregano
1/4 teaspoon salt
Freshly ground pepper, to
taste
4 teaspoons extra-virgin
olive oil

Preheat oven to 450°F.
Place tomatoes cut-side
up on a baking sheet. Top
with Parmesan, oregano,
salt and pepper. Drizzle
with oil and bake until the
tomatoes are tender, about
15 minutes.

Source: eatingwell.com

Store Properly!

Proper storage of fresh produce can affect both quality and safety. Store fresh fruits and vegetables in a clean refrigerator at a temperature of 40°F or below.

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Grilled Michigan Peaches

Fresh, ripe Michigan peaches
Vegetable oil
Ground cinnamon
Low-fat vanilla yogurt (optional)

Wash and halve peaches, removing the stone (do not peel). Lightly brush the cut side of the peach halves with vegetable oil. Place on a clean, medium-hot grill, sliced side down, and grill for about 3-4 minutes. Turn the peach halves and lightly sprinkle with cinnamon. Cook for another 3-4 minutes. Peaches will be fork tender when done. Remove peaches from the grill, top with a spoonful of low-fat vanilla yogurt, if desired, and serve immediately.

Source: MDARD staff

Buying Tips for Produce

Purchase produce that is not bruised or damaged. When selecting fresh-cut produce - such as a half a watermelon or bagged salad greens - choose items that are refrigerated or surrounded by ice. Bag fresh fruits and vegetables separately from meat, poultry and seafood products

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Cucumber Tea Sandwiches

20 Small slices of rye or
pumpernickel bread
20-30 slices of cucumbers
5 Tbsp. cream cheese
(regular or veggie)
5 tsp. parmesan cheese
Add other spices for taste

Lightly spread 1/4 tbsp. of
cream cheese on each
slice of bread
Add sliced cucumbers,
about 2-3 per sandwich
Sprinkle parmesan cheese
on top of the cucumbers
slices. Add other spices for
added taste

Source: MDARD staff

Wash your fruits and veggies

Because food borne pathogens spread easily from one fruit or vegetable to others if they are soaked in water, always wash fresh fruits and vegetables under a running tap before they are cut, processed, served or eaten.

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Serves 10

Tomatoes

Michigan grows tomatoes for both fresh and processed uses. Fresh tomatoes are available in August and September. Processed tomatoes can be purchased throughout the year.

Tomatoes are the second richest dietary source of lycopene, which gives tomatoes their red color. A high intake of lycopene has been associated with a reduced risk of certain cancers and cardiovascular disease. Tomatoes contain a great amount of nutrients, including being an excellent source of vitamins A & C. They are a good source of vitamin K, potassium and also offer some fiber, Magnesium, B6, niacin and folate.

Eat a rainbow of colors!

A plate of food should be colorful like a rainbow. Different kinds of food provide different nutrients and it is important to have a colorful plate full of different foods to ensure all nutrients are being met.

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Peaches

Michigan produces several varieties of peaches with our Red Haven peaches being famous throughout the country. They are available from July to mid-September. Canned and frozen peaches allow them to be available throughout the year.

Peaches are a healthy snack that provide some fiber and potassium and are a good source of vitamins A and C.

Include fruit throughout the day

Top cereal with peaches, berries or bananas. Try mixing fruit in with fat free or low fat yogurt. Pack fruit for a snack or lunch. At dinner include strawberries, grapes, dried cherries or dried cranberries in a tossed salad.

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Cucumbers

Michigan ranks first in the nation for production of cucumbers for pickling and 4th in the nation for fresh market cucumbers. Cucumbers are available in the summer months of July and August. They are great in salads, sliced for a snack and as pickles year round.

Sliced cucumbers provide a low calorie snack or side to a meal with only 16 calories in a one cup serving. Cucumbers provide a good source of vitamin k and contain fiber, vitamin C and other nutrients.

Kids need their veggies too!

Vegetables are rich in some key nutrients that kids fall short on, including potassium, fiber, folate and magnesium. Offer plenty of raw veggies with their peel for extra fiber and cut into easy-to-eat sizes.

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Michigan Department of Agriculture & Rural
Development

Regional Conservation Partnership Program Western Lake Erie Basin & St. Joseph Watershed Projects

MI Agricultural Commission Meeting
July 21, 2015



RCPP: Regional Conservation Partnership Program

- Authorized under 2014 Farm Bill and administered through USDA-NRCS programs
- \$235 million awarded on 3 scales:
 - Critical conservation areas - Great Lakes
 - National – regions or multi-state
 - State level
 - Promotes coordination with NRCS and partners to deliver conservation to producers
- 5 years to complete the work



Michigan's Process and Applications

- QOL facilitated partners and projects
- 7 projects were submitted
 - Tri-State Western Lake Erie Basin Phosphorus Reduction Initiative
 - Michigan/Indiana St. Joseph River Watershed Conservation
 - Saginaw Bay Watershed Conservation Partnership - TNC/MABA
 - Training Foresters to Enhance the Sustainable Management of Private Forest Land - DNR
 - Early Successional Forest Habitat - Wisconsin
- 5 of the 7 were funded - over \$30 million of federal dollars and 50-50 partner match



WLEB - RCPP: Tri-State Phosphorous Reduction Initiative

Western Lake Erie Basin Phosphorous Reduction Initiative

- **Goals:**
 - Reduce Phosphorous
 - Reduce Sediment
 - Improve Soil Health and Water Quality
 - Improve Fish and Wildlife Habitat
- **How:**
 - Target key practices for phosphorous reduction
 - All projects must have Nutrient Management Plans
 - Focus on both Agricultural and Structural practices



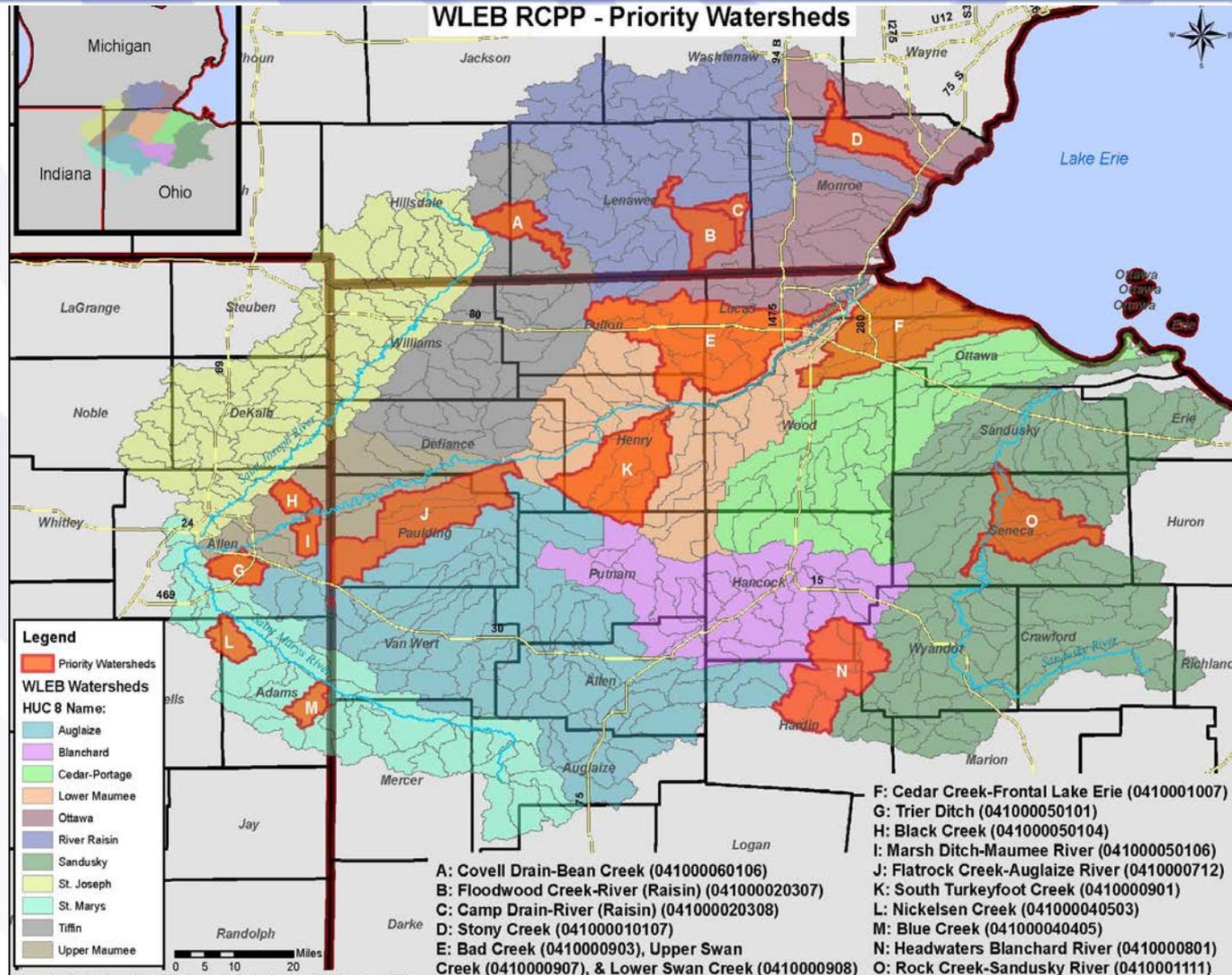
RCPP – WLEB Project Funding

- Michigan coordinated request for \$20 million from the CCA - Great Lakes Area fund pool
- \$17.5 million was awarded with agreement signed May 1, 2015
- Tri-State effort among MI, OH and IN and partners
- Michigan has 18% of the watershed; MI received \$2.5 million for cost share projects
- 40 partners match of \$28 million



Priority Watershed Area

- Watershed is over 7 million acres in size
- OH - 70%
- MI - 18%
- IN - 12%
- 76% is ag land (primarily row crops)





Priority Practices

- Nutrient Management – New template approved by NRCS for CCA and Tech use
- Erosion Control/Soil Health
 - Cover crops (340)
 - Grass waterways (412)
 - No till (329)
- Water Management/Wildlife Habitat
 - Tile outlet control structures/drainage water management
 - Underground outlets
 - Filter strips/conservation crop rotation
 - Wetland restorations



Project Selection and Evaluation

- Priority will be targeted toward:
 - Applicants in the priority watersheds
 - Implementation of priority practices
 - Nutrient Management Plan
- Some tools used for project evaluation include:
 - Various watershed modeling tools, including CEAP model
 - Calculated results for a practice
 - Water quality monitoring station results
 - MAEAP environmental impact calculations



Harmful Algal Bloom Updates

- NOAA forecast for WLEB algal blooms

<http://www.noaanews.noaa.gov/stories2015/20150519-noaa-partners-start-early-season-forecast-updates-for-lake-erie-harmful-algal-blooms.html>

- NOAA tracker updated regularly

<http://www.glerl.noaa.gov/res/waterQuality/?targetTab=habs>



St. Joseph River Watershed

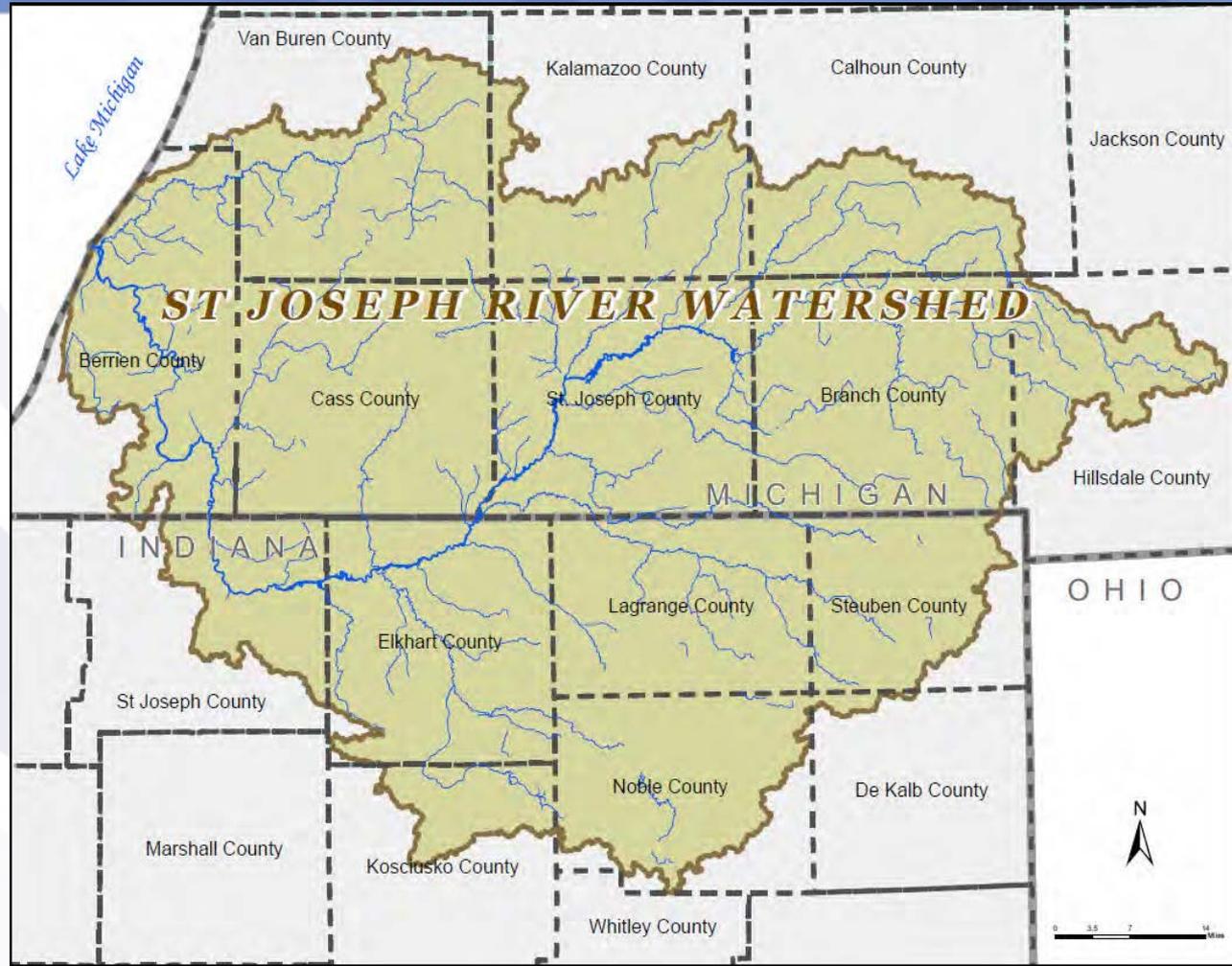
Michigan/Indiana St. Joseph River Watershed Conservation Partnership

- Over 40 partners including MI and IN;
\$6.8 million in federal financial assistance funds
(\$4 million in MI)
- Goals:
 - Groundwater conservation
 - Increase water infiltration
 - Decrease phosphorous and sediment loading
 - Improve fish and wildlife habitat



St. Joseph River Project Area

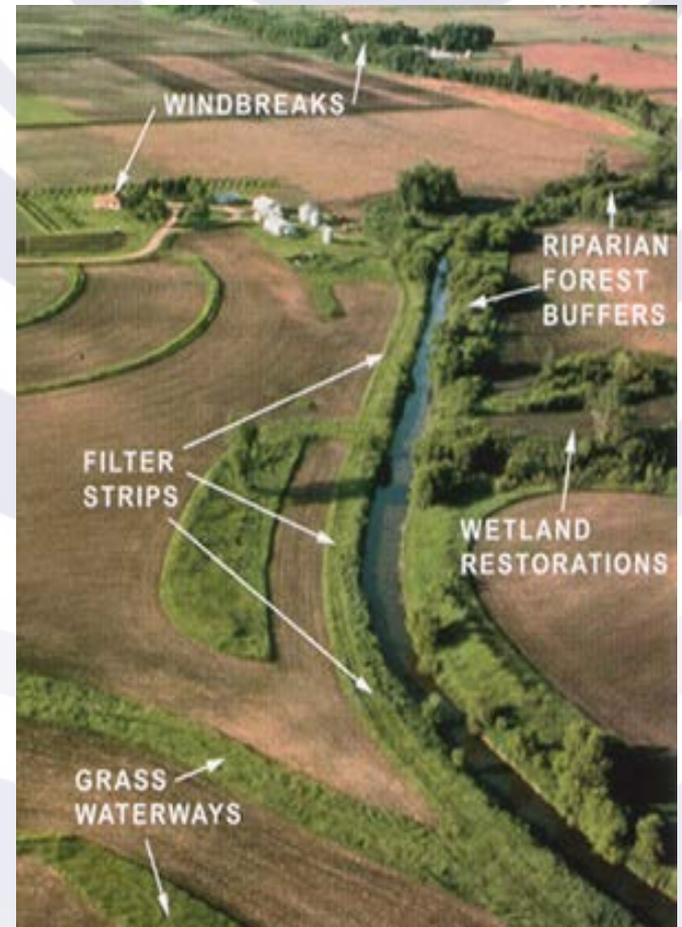
- The project area is located in SW MI and NW IN
- Over 1.6 million acres of farmland in MI
- Over 8,200 farms in MI





St. Joseph River Practices

- Water use management
 - Irrigation scheduling
 - System calibration
- Water infiltration
 - Cover crops
 - Grass waterways
- Phosphorous and sediment management
 - Conservation buffers
 - Filter strips
 - Water restorations





St. Joseph River Conservation

The Michigan/Indiana St. Joseph River Watershed Conservation Partnership will:

- Reduce enough sedimentation to fill approximately 4,200 dump trucks
- Reduce enough phosphorus loading to cover an area the combined size of the 6 largest lakes in the watershed with ¼" of algae
- Optimize the use of water used for crop irrigation, increasing water conservation and agricultural profitability



St. Joseph River Ranking Criteria

- Project selection will use State and **customized** local ranking tools to select successful RCPP applications.
- As the SJRW Partnership moves forward, there is flexibility to further customize scoring criteria.



St. Joseph River Ranking Criteria

- Single-practice applications will receive priority over multi-practice applications that do not impact the SJRW.
- The partnership seeks to implement conservation practices on at least 10% of the landscape in priority areas by targeting outreach and promotional methods.



Contact Information

Tri-State Western Lake Erie Basin Phosphorus Reduction Initiative

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Regional Conservation Partnership Program

Questions?

