

# My Michigan Plate

<b>Grade Level</b>	6
<b>Setting</b>	Indoors
<b>Subject Area</b>	Social Studies, Nutrition
<b>Description</b>	<p>Part One: Students learn about agriculture in Michigan, the various crops that are grown here, and how agriculture contributes to Michigan’s economy. Through a class discussion, they decode a legend and create their own MyPlate guide to create a balanced meal made entirely from products grown in Michigan.</p> <p>Part Two: Students find the most common origins around the world for all of the foods on their Michigan Plate that they created in part 1. Then, they calculate the total food miles (distance traveled to bring food from farm to plate) for this new “World” plate and the Michigan plate and compare the two numbers. Students draw conclusions about the importance of food miles.</p>
<b>Objective</b>	Students will understand how to identify whether food items belong to fruit, vegetable, protein, grain or dairy food group. Students will understand what “agricultural diversity” means and that Michigan is a major agricultural producer within the United States.
<b>Overarching Question</b>	What industries sustain our economy?
<b>Key Question</b>	What is agriculture and why is it important?
<b>Key Words</b>	specialized, diversified, agriculture, aquaculture, floriculture, protein, dairy, legend
<b>Curriculum Connections</b>	
<b>Estimated Prep Time</b>	10 min
<b>Teaching Time</b>	Two sessions Part 1: 45-60 min Part 2: 45 min
<b>Materials</b>	<ul style="list-style-type: none"><li>● Copy of Michigan products by area (1930s)</li><li>● Copy of Michigan products by county (2007)</li><li>● Copy of MyPlate graphic</li><li>● Copies of My Michigan Plate for each student</li><li>● red, orange, green, blue and purple crayons or colored pencils for each student or table</li><li>● Copies of Food Miles Charts for each pair of students</li></ul>
<b>Preparation</b>	Print copies of county maps and MyPlate graphic for each student.
<b>Teacher Background</b>	Throughout the 18th and 19th centuries, Michigan’s most important economic

activity was agriculture. Like most of the nation, Michigan's population was comprised of farmers.

Michigan's dairy industry grew dramatically in the early 1900s. While most Michigan farmers had always kept a few cows for home dairy use and continued to do so, others began to build herds to produce milk for sale. Dairy farms dotted Michigan's rural landscape from Gogebic County in the Upper Peninsula to Monroe County in the Lower Peninsula.

Today, agriculture is the second largest industry in Michigan (after manufacturing) and contributes \$37 billion to the state's economy annually. Michigan's farmers produce over 125 different food and fiber products on a commercial basis. Michigan ranks #1 in production of black beans, cranberry beans, blueberries, tart cherries, pickling cucumbers and Niagara grapes, the production of flowering and bedding plants, seed and cutting geraniums and hanging baskets.

Other major Michigan crops include: cherries, blueberries, squash, cucumbers, corn, dairy, soybeans, sugar beets, apples (3rd in the country... the state flower is actually the apple blossom!), potatoes, asparagus, carrots, grapes, and celery.

"MyPlate" is the visual representation of the USDA's nutritional guidelines, which replaced Pyramid in 2011. MyPlate is designed to represent a well-balanced meal, where half the plate is fruit and vegetables, and protein, grain and dairy are limited.

### **Class Discussion**

See procedure.

### **Procedure**

*Part One:*

Nineteenth-century Michigan farms grew a wide variety of crops and raised many different animals; 20th-century Michigan farms **specialized**.

Let's look at a map of the agricultural products produced by Michigan farmers in the 1930's.

What do you notice about the map?

Note that in most areas (and they're large), only one or two crops were grown.

This is called **specialization**.

Michigan farms are beginning to **diversify** again, or grow many different crops. This is called diversification. (look at the county commodities map) What do you notice is different?

There are MANY different products grown in Michigan! Let's look at the five major food groups and see just how many different things we can eat in Michigan.

Introduce MyPlate graphic, ask students to read the food groups and suggest examples for each of them.

Go through the county map legend, as a class talking about what foods make up the categories and circling each product with the color that corresponds to its food group category (red= fruit, orange=grain, green=vegetables, purple=protein, blue=dairy)

Have students create their own “Michigan Plate” by drawing a food item from each food group and labeling it as well as the county it came from. Collect My Michigan Plate sheets, or have students keep in a safe place. You will need them for part two.

*Part Two:*

Return or have students take out the “My Michigan Plate” they created in part one.

Review what “agricultural diversity means”. Have students brainstorm the following questions with a partner:

- What did you find most interesting about the “My Michigan Plate” activity?
- Were you surprised by any of the products that grow in Michigan?
- Why might someone want to eat foods that are grown closer to where they live?
- How might the choice to “eat local” affect what they eat?

have students calculate the total number of miles for their Michigan plate

calculate the total energy cost for Michigan plate

Create an identical plate w/ products from outside Michigan

Calculate total number of miles and energy cost

**Wrap Up**

*Part One:*

Have students share their Michigan plate.

Did you know michigan is the 2nd most agriculturally diverse state in the US?

Based on what we’ve learned, what does “agriculturally diverse” mean?

**Digging Deeper**

- Compare agricultural diversity in Michigan to the rest of the country using USDA MyPlate maps.
- Have students measure the number of miles it took to get food on their Michigan plate. [6th Grade Food Miles Activity](#)
- Delve into details on agriculture in school county- have students write a

report on a top agricultural product from the area

**Suggested Harvest of  
the Month Food Pairing**

Apples, (Fall), Frozen Fruit, Squash (Winter), Asparagus (Late Spring)

**Source**

Meghan McDermott, FoodCorps Service Member 2013-15

**Additional Resources**

<http://www.agclassroom.org/kids/stats/michigan.pdf>

[http://www.michigan.gov/documents/mda/County\\_Food\\_System\\_Profiles\\_292923\\_7.pdf](http://www.michigan.gov/documents/mda/County_Food_System_Profiles_292923_7.pdf)

[http://web2.geo.msu.edu/geogmich/ag\\_regions.html](http://web2.geo.msu.edu/geogmich/ag_regions.html)

<http://www.michigan.org/hot-spots/michigan-agriculture/>

[http://blog.mlive.com/freshfood/2011/04/post\\_16.html](http://blog.mlive.com/freshfood/2011/04/post_16.html)

[http://msue.anr.msu.edu/news/farm\\_to\\_school\\_success\\_story\\_grand\\_rapids\\_public\\_schools\\_adds\\_michigan\\_dry](http://msue.anr.msu.edu/news/farm_to_school_success_story_grand_rapids_public_schools_adds_michigan_dry)

[MyPlate & AgCensus](#)

[Teaching Great Lakes Science](#)

<http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/1900-75/erlyagri/images/agmap2.gif> from this site

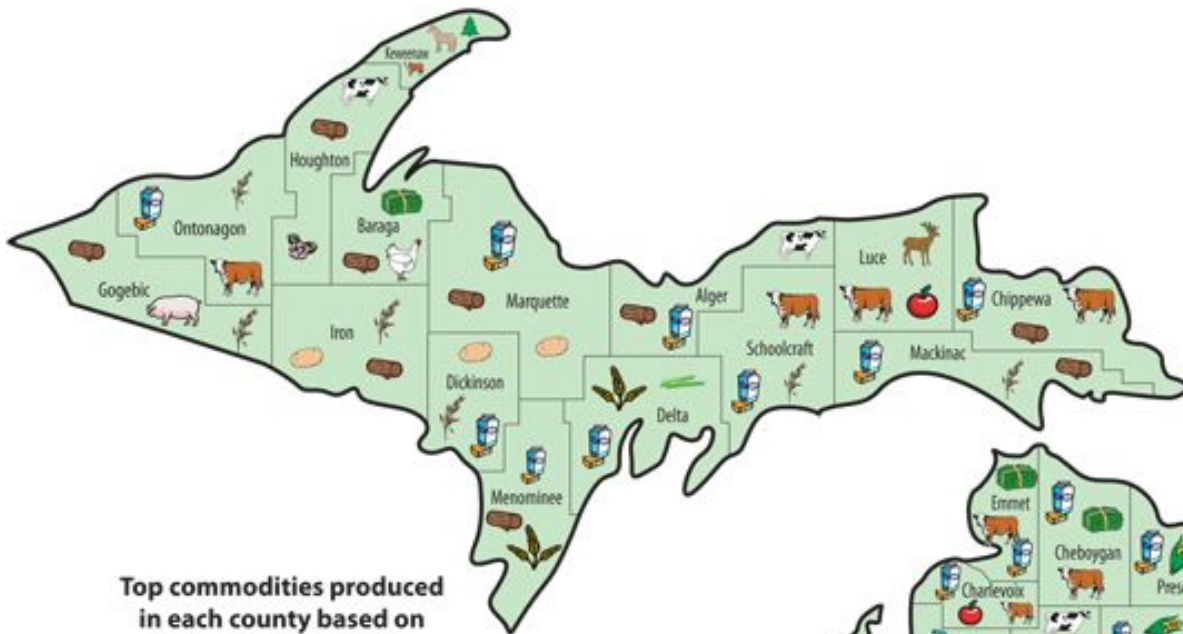
<http://www.hal.state.mi.us/mhc/museum/explore/museums/hismus/1900-75/erlyagri/crops.html>



# Michigan's Farming Areas (1930s)

Based on a map from *Michigan History Magazine*, 1938, Vol. 22, p. 316.

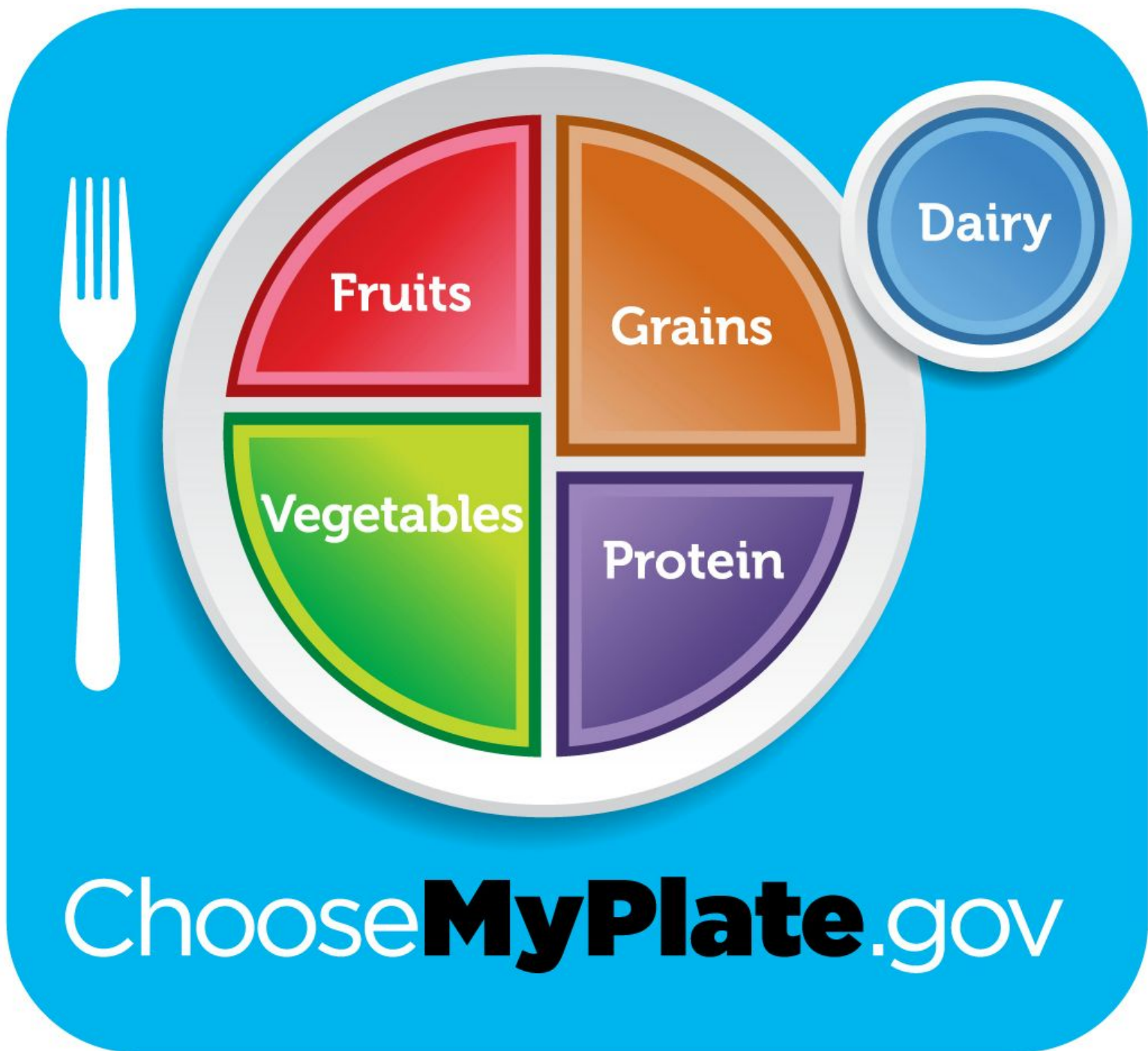
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**Top commodities produced in each county based on the total value of sales.**





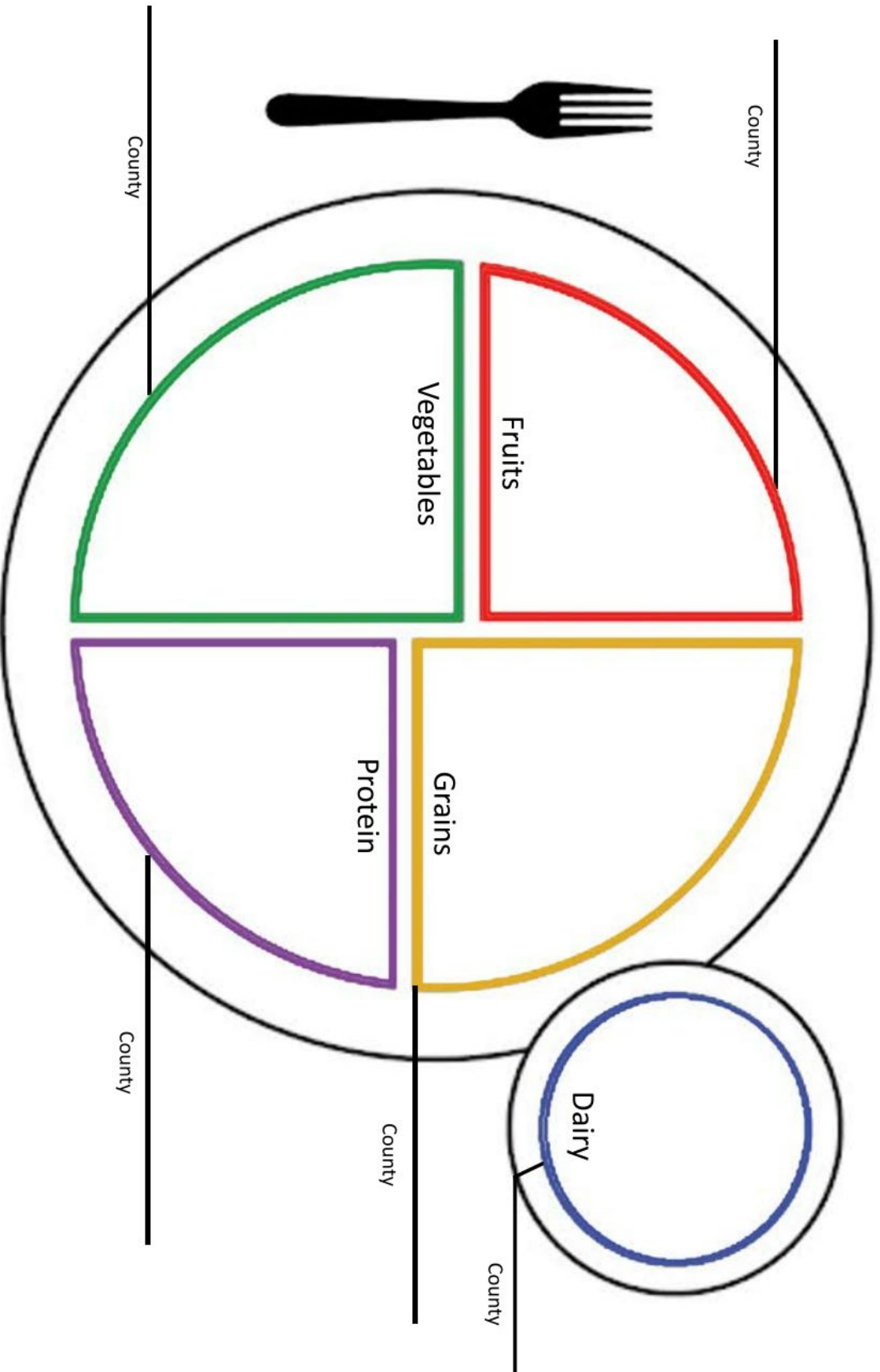


Choose **MyPlate**.gov

# My Michigan Plate

Name: \_\_\_\_\_

Grade: \_\_\_\_\_





**Page 2: My World Plate**

Using the My World Plate chart, calculate the food miles associated with your complete meal using products **grown around the world** instead of only within Michigan.

<b>Food Group</b>	<b>Product</b>	<b>City</b>	<b>Distance</b>
Ex : Vegetable	Asparagus	Beijing, China	6437 miles
Fruit			
Vegetable			
Protein			
Grain			
Dairy			

1. Total number of miles traveled to create My Plate: \_\_\_\_\_ miles
2. Difference in miles (My World Plate – My Michigan Plate): \_\_\_\_\_ miles
3. Were you surprised by the difference in miles? Why or why not?
  
4. List at least two reasons you might want to reduce the number of miles your food travels.
  
  
  
  
  
  
  
  
  
  
5. List at least two ways you could reduce the number of miles your food travels to reach your plate.

**Michigan Food Miles by County**

County	County Seat	Distance to Benzie County (miles)
Alcona	Harrisville	150
Alger	Munising	249
Allegan	Allegan	181
Alpena	Alpena	150
Antrim	Bellaire	60
Arenac	Standish	129
Baraga	L'Anse	358
Barry	Hastings	178
Bay	Bay City	145
Benzie	Beulah	6
Berrien	St. Joseph	221
Branch	Coldwater	254
Calhoun	Marshall	230
Cass	Cassopolis	232
Charlevoix	Charlevoix	73
Cheboygan	Cheboygan	135
Chippewa	Sault Ste. Marie	197
Clare	Harrison	85
Clinton	St. Johns	158
Crawford	Grayling	73
Delta	Escanaba	271
Dickinson	Iron Mountain	322
Eaton	Charlotte	201
Emmet	Petoskey	90
Genesee	Flint	189
Gladwin	Gladwin	102
Gogebic	Bessemer	429
Grand Traverse	Traverse City	25

Gratiot	Ithaca	137
Hillsdale	Hillsdale	244
Houghton	Houghton	390
Huron	Bad Axe	198
Ingham	Mason	190
Ionia	Ionia	143
Iosco	Tawas City	145
Iron	Crystal Falls	345
Isabella	Mt. Pleasant	112
Jackson	Jackson	215
Kalamazoo	Kalamazoo	191
Kalkaska	Kalkaska	48
Kent	Grand Rapids	142
Keweenaw	Eagle River	419
Lake	Baldwin	66
Lapeer	Lapeer	209
Leelanau	Leland	34
Lenawee	Adrian	252
Livingston	Howell	213
Luce	Newberry	213
Mackinac	St. Ignace	132
Macomb	Mt. Clemens	246
Manistee	Manistee	38
Marquette	Marquette	291
Mason	Ludington	67
Mecosta	Big Rapids	88
Menominee	Menominee	325
Midland	Midland	128
Missaukee	Lake City	61
Monroe	Monroe	278

Montcalm	Stanton	121
Montmorency	Atlanta	112
Muskegon	Muskegon	121
Newaygo	White Cloud	92
Oakland	Pontiac	229
Oceana	Hart	86
Ogemaw	West Branch	118
Ontonagon	Ontonagon	405
Osceola	Reed City	75
Oscoda	Mio	108
Otsego	Gaylord	83
Ottawa	Grand Haven	132
Presque Isle	Rogers City	153
Roscommon	Roscommon	82
Saginaw	Saginaw	156
Sanilac	Sandusky	207
Schoolcraft	Manistique	218
Shiawassee	Corunna	180
St. Clair	Port Huron	255
St. Joseph	Centreville	219
Tuscola	Caro	179
Van Buren	Paw Paw	207
Washtenaw	Ann Arbor	238
Wayne	Detroit	254
Wexford	Cadillac	49

### World Food Miles

Product	Location	Miles
Apples	Olympia, WA	1768

<b>Asparagus</b>	Beijing, China	6437
<b>Barley</b>	Bismark, ND	727
<b>Beef Cattle</b>	Austin, TX	1183
<b>Blueberries</b>	Mexico City, Mexico	1902
<b>Carrots</b>	Beijing, China	6437
<b>Cherries</b> Sweet Tart	Olympia, WA Traverse City, MI	1768 20
<b>Cucumbers</b>	Mexico City, Mexico	1902
<b>Dairy Products</b>	calculate using <a href="http://whereismymilkfrom.com/">http://whereismymilkfrom.com/</a>	
<b>Deer (Venison)</b>	hunted locally	0
<b>Dry Beans</b>	Brasilia, Brazil	4821
<b>Fish</b> Salmon Trout	Oslo, Norway Mancelona, MI	3840 49
<b>Grapes</b>	Sacramento, CA	1867
<b>Hogs</b>	Des Moines, Iowa	438
<b>Oats</b>	Moscow, Russia	4768
<b>Onions</b>	Beijing, China	6437
<b>Potatoes</b>	Boise, ID	1492
<b>Poultry</b>	Atlanta, GA	760
<b>Pumpkins</b>	Peoria, IL	329
<b>Sheep</b>	Wellington, New Zealand	8531
<b>Snap Beans</b>	Guatemala City, Guatemala	2096
<b>Squash</b>	Mexico City, Mexico	1902
<b>Sweet Corn</b>	Buenos Aires, Argentina	5751
<b>Tomatoes</b>	Sinaloa, Mexico	1797
<b>Wheat</b>	Bismark, ND	727