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Shari loves promoting the nutritional attributes of Michigan Beans and showing consumers how to prepare them in simple, delicious meals that promote better health.

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INTRODUCTION

Section 1: Defining a Plant-Forward Eating Pattern

What does plant-forward dietary pattern really mean?

Nutrition experts recognize that a dietary pattern that includes mostly nutrient-dense foods provides many health benefits along with many options for tasty, affordable meals. The 2020-2025 Dietary Guidelines for Americans (DGAs) describe nutrient-dense foods and beverages as those that provide vitamins, minerals, and other health-promoting components and have little added sugars, saturated fat, and sodium. Nutrient-dense choices naturally include a lot of plant-based foods such as fruits, vegetables, whole grains, beans, peas, lentils and nuts and seeds, but also includes seafood, eggs, fat-free and low-fat dairy products and lean meats and poultry. The DGAs emphasize that the combination of foods an individual consumes over time should consist mainly of nutrient-dense choices to form a healthy eating-pattern while making Every Bite Count.

Following a dietary pattern with an abundance of plant-based foods, however, does not mean you should start to consume only almond milk, soy yogurt, and plant-based burgers. There are many nutrient-dense foods that are naturally plant-based such as fruits, vegetables, beans and nuts and most individuals do not consume enough of these nutritious foods. According to the Centers for Disease Control (CDC) only 33 percent of adults are meeting the recommendation for fruit consumption and 27 percent are meeting the vegetable recommendation each day. The statistics are even worse for high school students. On average, only 9.5 percent of American adolescents consume at least 2 servings of fruit and at least 3 servings of vegetables each day. There is a lot of room for healthy improvement!

This book is intended to provide simple shopping and meal planning guidance to help you build a nutrient-dense grocery cart and create family-friendly meals that provide the power of plants, like Michigan Beans, in tasty, affordable and healthy meals. Let's first clarify what a plant-forward dietary pattern is and isn't:

Is plant-forward the same as being a vegetarian or vegan?

Actually, it's not. Plant-forward eating habits celebrate plants and emphasize them in meals and snacks. Think about adding beautiful fruits and vegetables, hearty Michigan Beans, whole grains, and crunchy nuts to daily eating habits. It doesn't mean giving up meat, poultry and fish, just shifting the balance to enjoy more plant-based foods. Vegetarian eating habits, on the other hand, don't include any meat, fish or poultry although some vegetarians do consume eggs and dairy. Vegans avoid all animal products.



Is a plant-forward eating pattern better for my health?

Plant-forward eating habits tend to be lower in saturated fat and cholesterol and higher in fiber, vitamins, minerals and antioxidants, and can positively impact risk of heart disease, high blood pressure, diabetes, certain cancers, and weight management. But it's important to consider the type of plant foods and their sources. Whole grain foods, fruits and vegetables, nuts and seeds and Michigan Beans are natural, nutrient-rich plant foods that should be included in meals and snacks. For example, snack on bean dip with whole grain tortilla chips, or fresh apple slices with peanut butter. These foods have a lot of nutritional value for their calories and will satisfy hunger. Bottom line, when adding plants, choose those that have the best nutrition.

What are some simple changes I can make to eat a more plant-forward diet?

Take small steps to move to a more plant-forward eating pattern. Look for the many natural plant foods that are delicious and add important nutrients to your eating habits. Beans are easy and convenient to add to meals and they help you get the fiber and protein you need to feel your best every day. Adding Michigan canned or dried cooked beans to salads, chili, soup, pasta dishes or your favorite Mexican meal is an easy way to include more plants to your meals.

When trying some of the newer plant-based products available in the grocery store, it's important to ensure they are nutritionally equivalent to products they replace. Milk, for example, is an important source of calcium and vitamin D, so you want to ensure a plant-based alternative has calcium as well as vitamin D added. Fill your shopping cart with fruits and veggies (fresh, canned, frozen or dried), good fats from foods like canola oil and avocados, whole grains, Michigan Beans, nuts and seeds which are all-natural plant-based foods.

Where do I start?

An easy place to start is by focusing on fruits and vegetables. Experiment with all the different varieties in this category. Beans come in varieties like black, navy, red, cranberry and more, each with many different ways to add texture, nutrients and flavor to meals. There are more than 16 different types of squash and many more varieties of apples. In addition, remember that canned, fresh, frozen and dried fruits and vegetable all count and provide valuable nutrients. Stock your pantry with canned tomatoes and beans for easy meal starters; use frozen fruit in smoothies or baking; add extra frozen veggies to soups or casseroles; choose fruit for dessert; include a fruit or vegetable with every meal and snack.

The Healthy Benefits of Eating More Plant Foods



Good for Your Health:

One of the main reasons for increasing the proportion of plant foods on your plate is for the significant health attributes they provide. Research reports the following benefits of following a plant-forward dietary pattern:

Supports a Healthy Immune System

Your immune system is your main defense against illnesses and infections and it's amazing to learn that 70 to 80% of the immune system is dependent on gut health. ¹ Plant foods high in fiber like fruits, vegetables, whole grains, beans, seeds and nuts benefit the gut by providing a unique package of nutrients that you cannot get from other foods. They are nutrient-rich foods and the combination of vitamins, minerals, antioxidants, phytochemicals and fiber in plants work together to create a stronger microbiome that empowers immune cells for functioning at their best. Bottom line, when you eat foods that benefit the gut, you are helping to support your immune system.

Reduces Inflammation

Inflammation is your body's natural response to protect itself from harm. Acute inflammation happens when you cut your finger for example. The body sends white blood cells to heal the area and your finger may become red and swollen. Chronic inflammation, however, stays in the body leaving it constantly on alert over a long period of time. It can be caused by several factors including environmental toxins, smoking, excess alcohol, obesity and stress. Chronic inflammation has been linked to a number of diseases including heart disease, cancer and rheumatoid arthritis. Studies strongly suggest that an increased intake of plant foods like fruits, vegetables, beans and whole grains have an anti-inflammatory affect.² This positive benefit may contribute to a lower risk of cardiovascular disease and cancer.

Promotes a Healthy Weight

Research suggests that people who eat a diet rich in plant foods tend to have a lower body mass index (BMI) and lower rates of obesity and diabetes. This may be based on the fact that plant-forward diets that include a lot of fruits, veggies and whole grains are higher in fiber and complex carbohydrates, providing abundant nutrients with fewer calories. In addition, these foods may help people feel full for a longer period of time. Pulses, which include dried peas, beans, chick peas and lentils, have specifically be linked to helping individuals achieve modest weight loss when consumed regularly.³ Together with regular physical activity, a plant-forward diet can effectively help individuals achieve and maintain a healthy weight.

Increases Fiber Intake

While current dietary guidelines recommend 25 grams of fiber for women and men 38 grams for men each day, many people barely consume half of these levels. Eating a plant-forward dietary pattern will help. Fiber is found in all unprocessed plant foods as it makes up the structure of the plant itself. Just a half cup of cooked navy beans, for example, contains nearly 10 grams of fiber which can be found in both the skin and the flesh of the bean. If you eat more plant foods you will most likely consume more fiber and reap the many benefits it provides. Along with improved gut health, more fiber will help you avoid constipation, aid in reducing blood cholesterol and work to stabilize blood sugar.⁴ Fiber has also been linked to a reduction in cancer, specifically true for your risk of colorectal cancer.⁵

May Help You Live Longer

If you add all of the potential health benefits of a plant-forward diet together, it results in a major one – living longer! The <u>Journal of the American Heart Association study</u> found that a plant-based diet lowers the risk of all causes of mortality by 25 percent. The best results, however, are achieved if you ensure that you are choosing naturally nutrient-rich plant-based foods such as whole grains, fruits, vegetables, nuts and beans, instead of products like sugar sweetened beverages and potato chips. Look for ways to include more plant-based foods in all your meals. For example, add black beans, corn and tomato to your tacos, or choose a naturally sweet baked apple with cinnamon and walnuts for dessert instead of cake.

Better for the Planet:

Some research also shows that consuming more plants can benefit the planet. When it come to Michigan Beans, they are not only good for you, they are good for the environment too. Beans, and all pulses, are natural soil enrichers. They fix nitrogen to the soil, reducing the need for water and improving soil health. As they enrich the soil where they grow, they reduce the need for chemical fertilizers. They are also drought-tolerant and resistant to harsh weather. Finally, beans and other pulses have one of the lowest carbon footprints of any food group.⁶

To learn more about how Michigan Bean Farmers strive to be good stewards of the land, Greg and Jade Ackerman discuss how they implement sustainable growing practices on their farm in Vassar, Michigan:

Sustainable Growing Practices

Interview with Michigan Bean Growers Greg and Jade Ackerman:

Where is your bean farm and how large of an operation is it?

Our family farm is located in Vassar, Michigan and we have an average size farm where we grow corn, sugar beets, dry beans, soybeans, and wheat. When I say we, I am talking about my father, Greg, brother, Mitchell, and two hired workers.

Briefly describe your bean production from seed to table.

These videos are from my brother's YouTube channel. He makes videos of activities on our farm. These videos pertain to how we produce dry beans:

Planting Michigan Dry Beans: https://www.youtube.com/watch?v=XyTeNrFNOYO Michigan Dry Bean Production: https://www.youtube.com/watch?v=myZw56RvYMI

Dry beans are planted the first few weeks of June. We apply nitrogen and pre emerge herbicide to the field to get started. We work the ground with a high speed, vertical, tillage tool to work the chemicals and to level off the ground. We then start putting the seed in the ground. After we plant, we then roll the beans to push down all rocks and debris to allow for the ground to be nice and flat for when we're ready to direct harvest. We want the ground flat to prevent stones, sticks, stalks and other debris from getting into the header and mixed in with the beans so we can supply good quality beans. After we roll, we continue to monitor the crop for any issues with diseases, weeds and insects.

Beans are direct harvested from late August through October. Direct harvesting of dry beans is a single pass through the field with a combine, cutting the bottom of the plant, feeding it onto the draper, which is a belt. The belt then makes its way into the feeder house to the rotor, where the beans are thrashed and removed from their pod. Once the beans are removed from the pod, they are conveyed into the clean grain tank. From there, they go through the auger into the dump cart. We use a dump cart to reduce damage to the beans and keep the combines moving while thrashing conditions are ideal. After the dump cart, they are then loaded into a trailer and taken to the processor. As they are being dumped into storage bins at the processor, they are run through a pre-cleaner to remove foreign material for long term storage. They can be stored at this point from one day to a full year before they are transported into the plant for processing.

Once the beans are in the processing plant they pass through a multiple *cleaning method to remove any foreign material, damaged beans, allergens, contrasting classes, splits and put into a tote or a bag. When they are in totes, they are taken by truck or rail to a canner or packager for further processing.

Dry packaged beans are delivered to packagers and re-cleaning and then packed into plastic bags for the retail market. These are the beans consumers need to soak and cook before adding to recipes.

Beans for canning are delivered to canner and re-cleaned, washed, cooked, blanched and placed into cans with brine or other sauces. The cans are then sealed and placed in a large chamber to remove air from the can. After that the cans then get a label and are packed into cases for distribution to grocery stores. These are the beans consumers can simply heat and eat.

*Cleaning methods includes, gravity separators, sifters, sieves, aspirators, destoners, and color sorters.

Why is Michigan such a good place to grow beans?

Michigan has the ideal climate and well-drained soil which allows the roots of the bean plants to penetrate deeper and reach more nutrients. This results in a higher yield. The Great Lakes that surround the Michigan bean growing region typically provides adequate moisture for our crop.

Are there any misconceptions about bean farming that you want to let consumers know the facts about?

All dry beans are non-GMO in the US and throughout the world. Organic and conventional beans have the same nutritional values.

What are some of your biggest challenges with growing beans?

Weather is the biggest challenge we face when growing beans because it is out of our control. Excessive rain and severe drought are examples. Excessive rain causes the roots to rot and kills the plant or causes yield hindering mold which leads to poor quality. If it's too dry, insects thrive and feed on the foliage. Although we do our best to control the weeds, diseases, and unwanted pests, we never have a perfect year. And no two years are the same. That being said, this all adds up to more risk than other conventional crops.

What differences or similarities exist between organic and conventional bean growing practices?

They are similar because the beans have the same life cycle and look the same side by side. The farming practices, however are different.

Organic practices use natural fertilizers where conventional practices use synthesized or manufactured fertilizers. Organic beans go through more stressful conditions, like insects and diseases. It may do more damage to the plant and yields than conventional beans. Conventional practices allow for the usage of advanced agronomical treatments making plants healthier and farming practices more manageable.

Many consumers are worried about pesticides. How do bean growers minimize exposure and residue?

Yes, we apply pesticides and herbicides on our crops but they are approved through the FDA, EPA, and deemed safe. All applicators go through annual training, education and are licensed by the state. This allows the safe and proper use of pesticides. The amount of pesticide used is very small and the timing is strategic. It is applied to the plant and not to the food we eat. Beans are periodically tested for residues before they are available to consumers. This is done to protect consumers and to be sure the end product has no chance to be recalled. Our training, cooperation, and abiding by the labeled rate of application approved by the FDA truly allows us to grow safe, healthy food.

How are beans harvested, stored and shipped to supermarkets or manufacturers and what is the typical timeframe?

Beans are harvested gently with modern equipment. They are transferred immediately to a clean trailer and hauled to a processing plant where the beans are stored and cleaned. Here they remove any foreign material, allergens, splits and damaged beans that could after inadvertently been introduced through harvest, storage, or transfer. After the beans are processed, they are packed into food grade tote bags filled with 2,000 pound or smaller bags to the customer's preference (usually 100 pound or 50 pound bags). These bags ship to a canner or package facility for further processing and turned into a finished product for us to consume.

Michigan Dry Bean Harvest Videos:

Harvesting Michigan Navy Beans:

https://www.youtube.com/watch?v=SkzWbhx3Cvs; https://www.youtube.com/watch?v=Od53NpB3JWQ&t=7s

Harvesting Michigan Black Beans:

https://www.youtube.com/watch?v=EckuPNj-Jv8

Have you seen a difference in the types of beans consumers are requesting and buying over the past several years?

Yes. We continue to see an increase in black bean consumption per capita and we've also seen a dramatic increase in beans being used as an ingredient, like in bean flour and bean pasta.

What GAPs (Good Agricultural Practices) do bean growers typically use to protect the soil health, water quality, workers and ultimately consumers?

There are many practices in place to promote environment health and safety. Soil sampling is performed to test the nutrients in the soil to avoid using too much fertilizer and grass filter strips are planted near ditches and other waterways to avoid any contamination. In addition, cover crops are spread on the fields to reduce soil erosion, reduce soil compaction, manage nitrogen and nutrients, control weeds, and improve water-holding capability. Finally, pesticides, herbicides, and fungicides

are always applied according to label and documented while only being used when thresholds are met.

One thing I want to share is that our farm is MAEAP (Michigan Agriculture Environmental Assurance Program) verified in the Farmstead and Cropping Systems. MAEPE helps farmers ensure they are and will continue to be agricultural stewards and protect the environment. The Farmstead system looks at activities performed on the entire farm with a focus on protecting surface and groundwater. The Cropping system focuses on field-based activities such as water use, soil conservation, and nutrient management. MAEAP verified farms, like ours, are required to go through a detailed inspection by the Michigan Department of Agriculture and Rural Development (MDARD).

How do growers keep high quality beans coming to manufacturers and retailers all year long?

Growers do not harvest the beans unless they are dry and in proper condition. Modern moisture meters allow us to check when the time is right. There are even monitors in the combines to help us make better decisions. After harvest, beans are cleaned once lightly before going into storage bins. These bins have aerated floors to allow air movement to keep them fresh. Inside these silos are temperature cables to monitor and maintain equilibrium throughout to avoid any spoilage.

What is your favorite Michigan Bean recipe?

We love navy bean soup during the cold months and a good cowboy caviar during the warm months!



Here is a link to the Ackerman's favorite recipes:

Easy Navy Bean Soup: https://michiganbean.com/easy-navy-bean-soup/

Cowboy Caviar: https://www.yummly.com/recipes?q=cowboy%20caviar&gs=be5ffe

Michigan Beans - A perfect plant-forward pick!

Michigan Beans have a lot to boast about!

Some people are surprised when they learn that Michigan is known throughout the world as a top producer of high-quality dry edible beans and Michigan is the second largest dry bean producer in the United States. There are more than 1,100 growers and related agri-business associates registered with the Michigan Bean Commission who are dedicated to bringing consumers the highest quality dry beans and growers are passionate about their work of growing and marketing world-class beans. Michigan farmers are the top producers of black beans, cranberry beans and small red beans but also grow other varieties. Check out all the types of beans grown in Michigan:



ADZUKI BEANS or red beans, are small and oval shaped.

Taste: Has a sweet flavor with a smooth inside and tougher skins.

Best Uses: Delicious in rice dishes, jambalaya, and even

desserts.

Sample Recipe: https://michiganbean.com/adzuki-beans-with-honey-and-apples/

BLACK BEANS are medium to small, oval shaped beans with a shiny black skin and a small white eye or spot (called a "keel").

Taste: Has a pleasant mushroom-like flavor which some cooks have described as "earthy". They have a very creamy white interior.

Best Uses: Black beans are a staple in South American, Mexican, and Caribbean cuisines and are popular in salads, dips, and stews, and in Mexican dishes such as tacos and burritos.

Sample Recipe: https://michiganbean.com/bean-and-beef-sheet-

pan-nachos/





CRANBERRY BEANS are medium-sized, oval and creamy white with red speckles and streaks – a beautiful bean!

Taste: Has a delicious earthy flavor. **Best Uses:** Often used in Italian dishes

Sample Recipe: https://michiganbean.com/michigan-bean-

vegetarian-soup-mix-gift/

DARK RED & LIGHT RED KIDNEY BEANS are very popular and whether you choose dark or light red beans, the color makes them a great addition to many dishes.

Taste: Their flavor is full with a soft texture and a tough skin.

Best Uses: They can maintain their shape even when cooked for a long

time which makes them perfect for soups and chilis.

Sample Recipes: https://michiganbean.com/michigan-kidney-bean-

tostados/ and https://michiganbean.com/minestrone/





WHITE KIDNEY BEANS, also known as Cannellini beans are the largest of the "white bean" varieties.

Taste: They have a nutty, earthy flavor and tender flesh.

Best Uses: Often used in Italian dishes like Minestrone. They retain their shape and texture well, so they're perfect to use in salads, soups, stews, and chili.

Sample Recipe: Delicious when marinated and used as a side dish. Simply add your favorite light vinaigrette to the cooked beans.

NAVY BEANS are small and get their name because of how often they were served to sailors at sea.

Taste: Navy beans have a mild, delicate flavor.

Best Uses: The Navy Bean is flexible and often used in commercial baked beans. They are also delicious in soups, salads, casseroles, or ethnic dishes.

Sample Recipe: https://michiganbean.com/greek-pasta-with-

tomatoes-and-beans/





PINTO BEANS get their name from their mottled beige and brown skin as pinto means "painted" in Spanish. This medium-sized bean is a staple in the diets of Mexico and the American Southwest.

Taste: Their flavor is often described as earthy, nutty, rich, and creamy.

Best Uses: Pintos can be found in chili, refried beans, and many dips.

Sample Recipe: https://michiganbean.com/curried-pinto-bean-

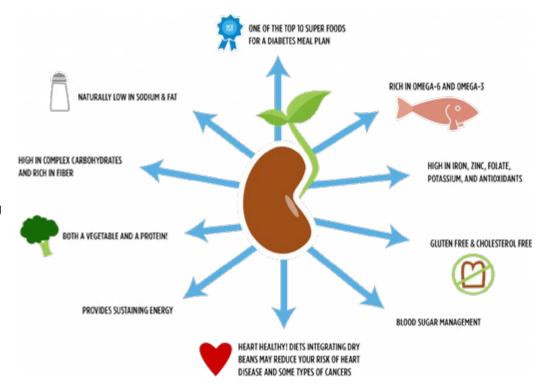
bake/

Michigan Beans are little powerhouses of nutrition

Beans receive top ratings when it comes to their nutritional value and the positive health attributes they provide. Just look at all of the benefits to eating more beans!

Michigan Beans Are:

- ✓ A Good source of protein – Providing about 8 grams of protein per half cup serving.
- ☑ An Excellent source of fiber – Including cholesterol-binding soluble fiber
- ☑ Iron rich One serving of navy beans provides more than 10% of the daily iron requirement for women. But while beans are rich in iron, they also contain antioxidant compounds called phytates that reduce iron absorption. To help your body absorb the iron in beans, simply pair them with a vitamin C source beans with tomatoes, peppers or onions for example.
- ☑ **High in phytochemicals** Beans naturally contain numerous phytochemicals such as polyphenols that act in a variety of ways, including as antioxidants, to protect health.
- ☑ A Good source of potassium As one of the most important minerals in the body, potassium helps nerves to function, muscles to contract and keeps your heartbeat regular.
- ☑ An Excellent source of folate This B vitamin helps make DNA and produce blood cells. It is extremely important during pregnancy, infancy and adolescence.
- ☑ Sodium and cholesterol free Although canned beans may have some sodium, you can seek out low or no sodium varieties. Also, rinsing and draining canned beans will remove approximately 40% of sodium.
- ☑ Gluten free Beans are naturally gluten free.
- ☑ Low on the glycemic index The American Diabetes Association advises people with diabetes to add dried beans or no-sodium canned beans to several meals each week. They are low on the glycemic index and can help manage blood sugar levels.





Michigan Beans are top quality

Michigan Bean growers work hard to ensure high quality beans reach your table. Modern technology allows growers to harvest the beans when they are at their best condition, and to properly clean them before storage and processing. Storage silos also use technology to regulate both temperature and air flow to maintain the high quality and nutritional value of Michigan Beans.

Michigan Beans provide versatile meal options

To reap the many health benefits of beans try adding them to the foods you already enjoy. Since beans have a neutral flavor, they go well with many dishes. Dried or canned beans are both excellent choices to add to meals. Dry beans are either packaged in their dry form or rehydrated and canned in a commercial canning facility such as BUSH'S® Beans or Campbell's®. Both of these packaging techniques produce a shelf-stable product allowing Michigan Beans to be available for consumers to purchase all year. Keep a variety of dry edible beans and canned beans on hand to use in a variety easy, affordable and healthy meals. We provide simple cooking techniques for dry beans and quick assembly recipes throughout this Michigan Bean guide book.

Michigan Beans are Good for Your Budget

Beans are an affordable ingredient that can be widely used in a variety of dishes. Dried beans that have been cooked are only about .18 cents per 1/2 cup serving! Canned beans, while a bit more expensive, are still very healthy, affordable and convenient if you're looking for a quick meal ingredient.

Build a Plant-Forward Grocery Cart with Michigan Beans

A plant-forward eating pattern that includes a variety of the right foods can help you manage your weight, reduce chronic inflammation and reduce your risk of heart disease, type 2 diabetes and stroke. ^{7,8} In addition, eating more plant foods can have a positive impact on the environment. Plantforward eating habits can also provide plenty of protein as meat can be included and many plant foods are good sources of protein.

Affordable, nutritious and delicious plant foods can be found throughout the grocery store. Start by making sure fruits and veggies have a prominent place in your cart, and remember, they come in a variety of forms including fresh, frozen and canned. Pick those that are versatile recipes ingredients like beans and tomatoes. The canned food aisle is also a great place to stock up on Michigan Beans which can be added to soups, chili, salads and more. Don't forget to add a variety of whole grain foods along with nuts and seeds. And remember, lean meats, low fat dairy foods and seafood can also be part of plant-forward shopping cart.

Plant-Forward Shopping List:

☑ Cart over to the can aisle:

- Canned Michigan Beans
- Canned mushrooms, corn, tomatoes, etc.
- Low sugar canned fruit

☑ Pick out your produce:

- Dried Michigan Beans
- Fresh fruits bananas, apples, grapes, peaches, pears, berries, etc.
- Fresh veggies onions, mushrooms, potatoes, peppers, carrots, etc.
- Salad mixesFresh veggies onions, mushrooms, potatoes, peppers, carrots, etc.
- Salad mixes

☑ Don't forget frozen:

- Fruits & vegetables
- Plant-forward frozen meals
- Whole grain waffles
- Seafood

\square Go for the grains:

- Hot and cold whole grain cereals
- Bakery breads and rolls
- Whole grain crackers
- Brown rice; Quinoa, Farro, etc.
- Whole grain and bean flours
- Bean flour pasta

☑ Choose nutrient-rich snacks:

- Bean chips/crackers
- Roasted beans
- Nuts and seeds
- Hummus
- Dried fruit
- Salsa and whole grain chips

☑ Find healthy fats:

- Olive & canola oil
- Avocado
- Plant-based spreads

☑ Drive over to dairy:

- Low fat milk or milk alternatives
- Low fat yogurt or plant-based yogurts
- Cheese

☑ Pick out your protein:

- Beans
- Tofu
- Eggs
- Lean meats
- Poultry
- Fish/seafood

Use this easy diagram to help you build a plant-forward shopping cart.



Fats - Olive, canola oil, avocado

10 tips for being savvy at the supermarket:

- 1. Shop your home pantry, refrigerator and freezer first to discover what may need to be used. Make sure you have staples like nut butters, olive and canola oils, canned and dried beans, pasta, rice, assorted vinegars and herbs and spices which all have a place in every healthy kitchen.
- 2. Check out your grocery store's online ad and clip any digital and/or paper coupons.
- 3. Prepare for success by creating a menu plan with a shopping list of needs.
- 4. DON'T just shop the perimeter of the store nourishing, affordable foods can be found in most aisles think of canned beans, whole grain pasta, brown rice, canned tomatoes, dried fruit, etc.
- 5. Spend time in the produce section discovering what might be in season and on sale. Have your kids help you choose a rainbow of colorful fruits and vegetables. The colors reflect the different vitamin, mineral, and phytonutrient content of each fruit or vegetable. See if they have some new dried beans to try!
- 6. Breads, Cereals, and Pasta. Look for options that include whole grains as a first ingredient. Choose whole-wheat bread and pastas, brown rice, grain mixes, quinoa, bulgur, and barley.
- 7. Meat, Fish and Poultry. The American Heart Association recommends two servings of fish a week. Experiment with some mild flavored varieties in dishes such as fish and bean tacos. Look for lean cuts of meat like pork tenderloin or beef round steak and keep some versatile poultry on hand such as chicken breasts or ground turkey.
- 8. Don't miss the dairy case where you'll find products that are an excellent source of bone-building calcium and vitamin D. Look for affordable, low-fat options of yogurt, cheese and milk to help you get 3 servings a day.
- 9. Discover healthful options in the frozen department. Frozen fruits and vegetables (without sauce) are a convenient way to help your family increase their produce intake and there is no waste! Also look for whole-grain waffles, healthier individual meals for lunch, and plain cheese pizza that you can top with a variety of veggies.
- 10. Don't skip the canned foods aisles where you'll find a selection of affordable and nutritious canned vegetables, fruits, and beans to keep on hand as pantry staples. They can be added to soups, salads, pasta, or rice dishes. Look for vegetable options with reduced sodium or simply drain and rinse and choose fruit packed in juice. Also look for tuna packed in water or olive oil and canned soups such as bean, lentil and vegetable.

Make Mealtime Easy with Michigan Beans

If you haven't cooked or eaten many beans in the past, don't fret! Since you don't want to miss out on the numerous benefits of adding beans to meals, we have the solutions to get you off to a successful start:

- Store beans properly: Beans should be stored in airtight containers in a cool, dry location.

 Also, keeping beans out of the direct sunlight will prevent discoloration and a change in flavor.
- ☑ Cook with a variety of beans: No need to stick to a single type of bean. Michigan Beans varieties offer different tastes, textures and package of nutrients so variety helps you reap more health benefits from your beans.
- ☑ Minimize the gas: We've all heard the song... "Beans, beans, the magic fruit..."

Yes, beans sometimes cause gas because of natural chemicals called oligosaccharides. These are sugar molecules are often difficult for humans to digest and they are passed to the lower intestine without being broken down. It is there that they can have gas-producing effects. You can however, minimize these effects by following some very simple steps:

- Always soak and drain your dry beans first. The longer the beans are soaked, the more oligosaccharides are released into the soaking water. Drain and rinse the beans before cooking, always discarding the water used to soak.
- Commercial natural enzyme products, such as Beano, break down the complex sugars in beans making them easier to digest.
- The main thing is to start slowly. If you haven't been eating a lot of beans start by adding them into just one meal at a time so your digestive system gets used to the added fiber. Swap baked beans for potatoes as a side dish, top your green salad with cooked beans or add them to your soup or chili. You can also pair beans with easy-to-digest foods like pasta or rice. The more you eat the less issues you should have.

Cooking Dry Edible Beans - Soak & Simmer

To bring out their natural goodness and flavor, dry beans need to be soaked before cooking with this method. The process is simple and ensures great taste and beautiful beans! There are two methods for soaking beans:

The Traditional Method of Soaking: In a large pot, add 3 cups of cold water to each cup of beans (or 6 cups for each pound.) Soak 8 hours or overnight in the refrigerator. Drain and rinse the beans.

The Quick Method of Soaking: In a large pot, add 3 cups of hot water to each cup of beans (or 6 cups for each pound.) Bring to a boil and cook the beans at medium heat for 2 minutes. Cover the pot and let the beans stand for 1 hour. Drain and rinse the beans.

Time to Cook: After either method of soaking, simmer beans about 1 to 2 hours or until tender. To prevent foam or froth while cooking, add 1 tablespoon of vegetable oil to simmering water.



Photo: The Bean Institute

Preparing Beans in a Pressure Cooker

Using an Instant Pot, or other type of pressure cooker, is a fast and fail-proof method to cook Michigan Dry Edible Beans. Here are the simple steps to follow:

- 1. Combine the following ingredients in a 6 to 8-quart pressure cooker:
 - 1-pound Michigan Dry Edible Beans (see cooking times below for specific beans)
 - 8 cups water
 - 1 tablespoon olive oil
 - 1 teaspoon salt
 - 1–2 teaspoons chopped garlic, optional
 - 1 bay leaf, optional (Note: do not fill pressure cooker over half full)
- **2. Secure the lid per the instructions:** Make sure the pressure regulator valve is closed or set to the "sealing" position.
- 3. Cook the unsoaked beans: Cook beans at high pressure for the recommended time below if using an Instant Pot. (If using a different type of pressure cooker, check your manual for exact cooking times). Note that the pressure cooker will take 15 to 20 minutes to come to full pressure before cooking begins.

Adzuki or red beans: 25 to 30 minutes

• Black beans: 20 to 25 minutes

Cranberry beans: 25 to 30 minutes

Kidney beans: 40 to 45 minutes

Navy beans: 25 to 30 minutes

Pinto beans: 25 to 30 minutes

- **4.** Let the pressure release: Once cooking is complete, you can let the pressure release naturally on its own, which takes about 20 to 30 minutes. This helps the beans retain their shape.
- 5. If your beans are not done: Put the lid back on the pressure cooker and make sure the release valve is set back to "sealing." Cook at high pressure for another 5 to 10 minutes Check your beans after the extra cooking time and continue cooking for longer if needed.
- **6.** Using and storing your beans: The beans can be strained and used right away, or cooled and stored in their cooking liquid. They will keep for up to a week refrigerated or up to 3 months in the freezer.

Click <u>HERE</u> for a video showing how to cook beans in an instant pot along with 2 recipes: <u>White</u> <u>Chicken Chili</u> and <u>Greek Pasta with Tomatoes and Beans</u>



Freezing Beans

When cooking a large amount of dry beans, you may want to freeze them for several meals. Once the beans have finished cooking, drain them in a colander and allow the beans to cool completely. You can speed this process by rinsing them with cold water, just be sure to drain them completely. Transfer them to a freezer safe container, plastic container, freezer bags or vacuum-sealed bags. Transfer to freezer until ready to use in your cooking, just like you would a drained can of beans. Beans will keep their shape better if you thaw them slowly, either in the refrigerator overnight or by adding to your recipe toward the end, so they don't cook too long. Beans keep in the freezer for about 6 months. Add frozen beans directly to recipes like chili or beans and rice. They'll thaw right in the pot or pan.

Tips for Cooking with Canned Beans

Canned beans are a super convenient addition to meals so make sure to keep a variety of choices in your pantry. Here are a few considerations for cooking with them:

- ☑ Canned beans and sodium: All beans provide protein, fiber, folate and lots of minerals, like iron, magnesium, potassium and zinc. If you're worried about the sodium in canned beans, look for low or no sodium varieties. You can also rinse and drain beans before using to reduce the sodium by as much as 40 percent.
- Pump up the flavor: Drain, rinse and dry canned beans then toss with a bit of olive oil and your favorite seasonings. Try thyme, oregano, rosemary, sage, red pepper flakes, crushed garlic cloves, and of course salt and pepper.
- ☑ Using the bean liquid: The liquid in all canned beans is a mixture of water, salt, and the starch released from the beans themselves. Recipes often call for rinsing and draining the liquid from canned beans but if you're cooking something that requires extra liquid go ahead and use it. Since canned bean liquid, has starch from the beans it can actually help to thicken soups or to make hummus smooth.
- ☑ Substituting canned beans for dried: As a rule of thumb, substitute two (15-ounce) cans of beans for every cup of dried beans required in your recipe.
- ☑ Cans are safe: In the past, some people had a concern over the use of BPA (bisphenols) in can linings. The can manufacturing industry has moved away from this practice with well over 90 percent of food cans now produced with non-BPA linings. These next-generation linings have been formulated over several years with carefully chosen, inspected and approved components.
- ☑ Cans are sustainable: Steel food cans are made almost totally of steel, which recycles forever. They are the most recycled food package in America today.

Batch Cooking with Michigan Beans - Cook Once - Eat Thrice!

If you haven't cooked or eaten many beans in the past, don't fret! Since you don't want to miss out on the numerous benefits of adding beans to meals, we have the solutions to get you off to a successful start:



3 Recipes with Michigan Kidney Beans

- Minestrone Soup
- Michigan Kidney Bean Tostados
- Bean and Pasta Salad

3 Recipes with Michigan Black Beans

- Beef and Bean Sheet Pan Nachos
- Michigan Black Bean and Bulger Salad
- Spicy Black Bean Burger

3 Recipes with Michigan Navy Beans

- Greek Pasta with Tomatoes and Beans
- Salmon with Arugula and White Beans
- Michigan White Bean and Farro Salad

Consume the Benefits of Michigan Beans 30 Ways in 30 Days

		Day 1: Experiment with adding doubleduty beans to more meals—they count as a protein & vegetable!	Day 2: Enjoy a tasty breakfast wrap with eggs, black beans, guacamole and salsa.	Day 3: Blend kidney beans, Greek yogurt, onion, red wine vinegar, chili powder & cumin for a creamy dip.	Day 4: Combine cooked beans with your favorite meat recipes such as tacos, burgers, chilis & casseroles.	Day 5: Add cooked beans to your favorite vegetable soup to pump up the protein and fiber.
Day 6: Substitute the flour in a brownie recipe with a can of pureed black beans.	Day 7: Add chopped veggies and white beans to your tuna or chicken salad.	Day 8: Celebrate Taco Tuesday by filling shells with a blend of beans, chopped pepper, onions and cheese.	Day 9: Mash pinto beans with some cumin and warm. Spread on wheat toast and top with scrambled eggs & salsa.	Day 10: Make a fiber- rich salad with cooked beans, quinoa, corn, peppers, tomatoes & onions.	Day 11: Switch up your potato side dish – opt for some savory baked beans instead.	Day 12: Enjoy roasted chickpeas as a healthy snack to eat by themselves or added to a trail mix.
Day 13: Add onions, mushrooms and beans to your omelet.	Day 14: Add beans to pasta or casseroles – try this easy Greek Pasta with Tomatoes & Beans	Day 15: Add cooked beans and corn to your salsa to kick up the texture and nutrition. Serve with whole grain chips.	Day 16: Substitute white bean hummus as a spread on your sandwich.	Day 17: Enjoy a big, green side salad with dinner and add canned beans to pump up the fiber & protein.	Day 18: Easy Salad: Combine white kidney beans, garlic, sundried tomatoes, rosemary, red wine vinegar & Greek olives.	Day 19: Super Smoothie: Blend 2 frozen bananas, ¼ cup white beans, ½ cup strawberries, 2 dates & 2 cups milk.
Day 20: Mash cooked beans and avocado together & spread on a whole grain wrap. Add veggies for crunch.	Day 21: Stay stocked up canned fruits, veggies and beans for quick meal prep and side dishes.	Day 22: Use veggies as vessels. Try whole onions stuffed with seasoned veggies, black beans and a little meat or poultry.	Day 23: Avocado toast anyone? Add more nutrients by starting with mashed beans then adding avocado slices.	Day 24: Whip up a tasty gift of health from your kitchen -make these Chocolate Black. Bean Truffles.	Day 25: Toss cooked beans in hearty soups and chilis to add key nutrients and fiber.	Day 26: Mash pinto beans on a whole wheat pizza crust. Add sauce, sprinkle with your favorite cheese and bake.
Day 27: Snack on hummus or bean dip with veggies and whole grain crackers.	Day 28: Build a better bean pantry. Keep canned beans on hand for quick meals and bean flours for baking – bonus of more protein & fiber!	Day 29: Combine canned beans, peppers, onion & parsley with a citrus vinaigrette. Marinate before serving.	Day 30: Add the nutritional benefits of beans to meatballs and these Spicy Black Bean Burgers.			

Resources

- Michiganbean.com
- USApulses.org
- Beaninstitute.com
- Oldwayspt.org

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