



Overlooked health benefits of local, organic farming

Lessons of the fall harvest

September is traditionally the month of the major harvest.

Of course, there was a time when the harvest involved many people in many communities. Everyone would come together to gather ripe crops... and celebrate the fruits of their labor.

Now, we're living in an era of industrialized, large-scale farming and processed foods. And the hard work of the annual harvest isn't recognized by the average Joe.

In fact, the perseverance of **local, organic farming** is often overlooked—all year-long.

Why *actively* search for locally sourced meat and produce when conventional foods are so readily available at the grocery store?

Well, that's where some consumers get it all wrong. Because that search *is* worth it.

Not only is organic food *better* for the environment, there's plenty of research showing it's also better for our health.

For one, the law prohibits use of pesticides, chemical fertilizers, and other toxins in organically grown food.

But there's also scientific evidence that organic fruits and vegetables contain MORE nutrients than their

conventional cousins—which results in LESS DISEASE.

In fact, including organic foods as part of your balanced diet is one of the *very best things* you can do for your health.

That's why this month, **in honor of the fall harvest**, I'm focusing on organic farming—what's occurred in the past, where things are going, and where they still need to go.

(Fortunately, there's a lot of good news to share on the bigger picture of what's happening today with organic food.)

I'll also provide specific examples of what YOU can do to encourage organic farming and more availability of organic foods...even if you live miles away from farmland.

What does "organic" mean?

"Organic" used to be a catch-all phrase that didn't really mean anything (much like "natural" is today).

But back in the 1970s and 1980s, farmers and consumers who were concerned about false labeling of so-called organic foods lobbied the U.S. government to do something about it.

In 1990, Congress passed the Organic Foods Production Act, which required

the U.S. Department of Agriculture (USDA) to develop national standards for organic products.

It took 10 years of public input and bureaucratic rigmarole to finally codify those standards. The result is the USDA's National Organic Program (NOP), which was established in 2000.

The NOP's mission is to protect the USDA organic seal, which is only issued to certified organic producers. This ensures that no plant *or* animal food product can use the word "organic" unless it meets USDA organic standards.¹

Those standards state that any food product labeled "organic" must

In this issue:

"Harvest" of the month:
An apple a day 4

Friendships IMPROVE
emotional, mental, and
physical health 5

Official dietary
recommendations
based on LIES? 7

Why you'll WANT a
"beer gut" 8

Marc S. Micozzi, M.D., Ph.D., is a worldwide leader in nutritional and complementary/alternative medicine. He has had a distinguished career as a researcher and physician executive at the National Institutes of Health and Walter Reed National Military Medical Center in Washington, DC, and the College of Physicians in Philadelphia PA. He has published over 30 medical and trade books, and founded and edited the first scientific journal, and the first textbook, on complementary/alternative and nutritional medicine, now available in a 6th edition and continuously in print since 1995.

Dr. Micozzi's *Insiders' Cures* is published monthly by OmniVista Health Media, L.L.C., 1117 Saint Paul St., Baltimore, MD 21202 for \$74 per year (\$6.16 an issue).

POSTMASTER: Send address changes to *Insiders' Cures*, 1117 Saint Paul St., Baltimore, MD 21202.

Author: Marc S. Micozzi, M.D., Ph.D.
 Publisher: Katherine Wheeler
 Editorial Director: Rachel Lewis

All material in this publication is provided for information only and may not be construed as medical advice or instruction. No action should be taken based solely on the contents of this publication; readers should consult appropriate health professionals on any matter relating to their health and wellbeing. The information provided in this publication is believed to be accurate and sound, based on the best judgment available to the authors, but readers who fail to consult with appropriate health authorities assume the risk of any injuries. The opinions expressed here do not necessarily reflect the views of the publisher. The publisher is not responsible for errors or omissions.

For questions regarding your subscription, please contact reader services at www.drnicozzi.com.

Copyright © 2022 OmniVista Health Media, L.L.C., 1117 Saint Paul St., Baltimore, MD 21202. Reproduction in whole or in part is prohibited without written permission of the publisher.

be at least 95 percent organically grown. Products labeled “made with organic ingredients” must contain at least 70 percent organically grown ingredients.

In addition, crops must grow at least three years without synthetic fertilizers and pesticides (natural fertilizers are allowed).

Genetically modified (GM) seeds are prohibited. And foods cannot be processed with non-organic additives like artificial sweeteners, flavors, colors, or preservatives.

Organic animal products like meat, eggs, and dairy must come from animals that only eat organic feed, are free-range or have access to pasture at least 120 days a year, and aren't given antibiotics or growth hormones.

Last but not least, farms that produce organic crops are visited *at least once a year* by USDA-accredited organic certifiers to make sure they're compliant.

Organic vs. conventional farming

In the two decades since the NOP was implemented, there have been plenty of opportunities to study the impact of organic farming. That research tends to break down into three categories:

- The contrast between conventional and organic farming
- Organic farming's impact on human health
- Organic farming's impact on the environment

Back in 1798, English economist Thomas Malthus predicted the world's population would eventually outgrow its ability to feed itself.

Since then, big agro-giants have

used this dire prediction to help justify unhealthy changes in farming—including the use of GM seeds, chemical pesticides and fertilizers, and poor soil-management techniques.

These technical developments *have* led to greater gross crop yields (the amount of product produced by a given plot). But a four-decade study comparing conventional to organic farming shows that organic farmlands can grow *the same amount of food* as their conventional counterparts.

In fact, the Rodale Institute's Farming Systems Trial began in 1981 on 12 acres on the Institute's lands in Kutztown, Pennsylvania.² Over the ensuing years, the researchers grew grains both organically and conventionally and analyzed the results.

They found:

- Organic gross crop yields match conventional, chemical crop yields
- Organic crop yields outperform conventional crops by up to 40 percent during years of drought
- Organic farming uses 45 percent less energy than conventional farming
- Organic farming produces 40 percent fewer greenhouse gases than conventional farming
- Organic crops earn three to six times more profits for farmers compared to conventional crops
- Organic grains have more nutrient density (specifically, protein and amino acids) than their conventional counterparts.

Pretty impressive, right?

And speaking about nutrients...

Organic farming bolsters our health

A variety of studies show that the actual nutrient content of conventional food crops has *declined* since World War II, when factory farming first became prevalent.

A landmark 2004 study reviewed USDA nutritional data from both 1950 and 1999 for 43 different vegetables and fruits. The researchers found “reliable declines” in the amount of protein, calcium, phosphorus, iron, riboflavin (vitamin B2), and vitamin C in those crops.³

The authors chalked up these deficits to agricultural practices designed to improve fruit and vegetable traits (size, growth rate, pest resistance) rather than nutrition.

But soil depletion is another big factor. Crops get many nutrients from the soil, yet research shows that post-World War II farming techniques like pesticide use and lack of crop rotation have made agricultural soil much less fertile.⁴

(I first observed this fact when studying green, leafy vegetables and yellow-orange vegetables during the 1980s as sources of all-important carotenoids, as well as vitamins and minerals.)

Carotenoids, phytonutrients, and other natural compounds help plants stay healthy. Now, an increasing amount of research shows that when humans consume those plants, they *also* get the benefits of these healthy compounds.

Plus, there's evidence that plants produce *even more* of those compounds when they fight off pests and diseases themselves...without the aid of agricultural chemicals.

Meaning that organic crops may

contain **more beneficial compounds** than their conventional counterparts.

In fact, recent research shows these extra nutrients are having a **significant** impact on human health...

A 2019 review of 35 studies found that people who eat more organic food tend to have reduced inflammation and less risk of non-Hodgkin lymphoma, obesity, and metabolic syndrome (which is linked to diabetes and cardiovascular disease). They also have fewer allergies and less infertility.

Not to mention, there's equally impressive research on the link between organic farming and environmental health...

Positive impact on the planet

In addition to producing more nourishing food, research shows that organic farming better withstands the growing worldwide challenge to feed more people—*without* destroying the environment.

For instance, a new study conducted over five years in Spain shows that organic wheat farming emits fewer greenhouse gases like carbon dioxide, nitrous oxide, and methane than conventional wheat production.⁶

Why?

It may have to do with the synthetic fertilizers used in conventional chemical farming. A 2020 study found that global nitrous-oxide emissions were largely related to agriculture—particularly the use of synthetic nitrogen fertilizers.⁷

Interestingly, while organic farming may help reduce climate change, there's also evidence that it can thrive *as a result* of climate change. Factors that favor organic crop production include uncertain or

DIY organic farming

Along with supporting local organic farms, you can also **grow your own** organic produce.

And the late-August, early-September season is a perfect time to start your fall vegetables and herbs!

If you don't have a green thumb or your own back 40 (plot of land), don't despair. Many fall plants are easy to grow and can be planted in containers on a patio or balcony—or even inside your home.

Here are my favorite cool-weather veggies:

- Asparagus
- Beets
- Broccoli
- Cabbage
- Cauliflower
- Carrots
- Lettuce
- Onions
- Peas
- Radishes
- Spinach
- Swiss chard
- Turnips

I also like to plant the following fall herbs:

- Cilantro
- Garlic
- Parsley

Most of these grow best from seeds, and can weather early frosts. In fact, the root vegetables can be harvested throughout the winter, depending on your climate.

There's even an added bonus: Weeds don't thrive in the fall like they do in the summer, making it easy to avoid chemical weed killers. Plus, many garden pests don't like cooler temperatures, meaning you won't be tempted to use toxic pesticides.

A quick internet search will turn up many useful tips for how to manage your own patio or backyard garden, from cultivation through maturity.

more extreme weather patterns, the growing scarcity and expense of energy supplies, and restrictions on water supplies for irrigation.

And perhaps most importantly, as studies often warn, the pesticides

used on conventional crops can kill bees, butterflies, and birds. That, in turn, can lead to less food production and diversity.

Good news on the horizon

All of this shows that organic farming is KEY to the survival of not only our population, but our planet.

The good news is, more and more young farmers are turning to organic farming as a viable way to make a living—as shown in the USDA census of agriculture and farming (which is conducted every five years).

Currently, we're relying on data from the 2017 census, until results from this year's census roll in.⁸

Of course, the USDA report tends to highlight problems with agriculture (there are plenty). For instance, there's an indication that mid-sized farms are being swallowed up by corporate giants. And the USDA is appropriately concerned about the

loss of midsize farms and the jobs they provide.

But there's still some good news hidden inside its 820 pages.

Specifically:

- The number of small farming operations (less than nine acres) skyrocketed by 22 percent from 2012 to 2017, up to more than 273,000 farms.
- The number of farmers younger than age 35 rose 11 percent to about 285,000.
- People with 10 years or less experience in farming made up 27 percent of all farmers.
- The number of organic farmers jumped from about 14,000 to 18,000, an increase of 29 percent.
- Total sales of U.S. organic products nearly *doubled*. The average organic farm sold about \$401,000 worth of goods in 2017, compared to about \$218,000 in 2012.

These findings suggest that younger farmers on small farms *are* making a difference.

Micozzi family farming

My family has a long history with local farming.

My grandfather had an 11-acre farm that supported a family of 14 during the Great Depression and through World War II. It provided eggs, milk, butter, ham, produce, and other foods for the local community.

More than 20 years ago, my uncle took over the farm and switched to organic and grass-fed practices.

Of course, my uncle is getting older (like many of our farmers). But as I mentioned, small, independent, organic farms (like my uncle's) are making a comeback across America.

In fact, my daughter successfully operates a small-scale organic farm and local farm stand called Cozzi Family Farm in Rockport, Massachusetts. In addition, my family has had a small horse boarding, training, riding, and leasing business. So we take part in the USDA's agricultural census when requested.

"Harvest" of the month: An apple a day...

I always encourage you to eat apples year-round. They're one of the most nutritious foods on the planet. In fact, consuming them can keep you in optimal health.

And this month, apples are in peak season!

So, go ahead and plan a trip to the orchard to pick a variety of fresh, crisp apples.

Then, enjoy their deliciousness—all while reaping the following health benefits, which begin after your first bite...

Apples naturally **clean your teeth and keep your breath fresh**. Plus, eating this type of crunchy fruit and similar vegetables (like celery and carrots) removes particles and plaque—helping prevent tooth decay and odors.

Apples also have healthy doses of

nutrients. They're rich in vitamins B, C, and K, along with calcium, phosphorus, and potassium.

They're also an excellent source of polyphenols. These naturally occurring antioxidants are found in fruits and vegetables and have been shown to **lower the risk of many common chronic diseases** (including heart disease and diabetes)...while **boosting longevity**.

Next, apples are loaded with a kind of natural fiber called pectin that's particularly important for supporting **probiotics**—the healthy bacteria in your gastrointestinal microbiome. (For more about probiotics and gut health, see page 8.)

In fact, current research suggests that one reason apples are so healthy for your **heart and metabolism** has to do with their support of probiotics.

Not to mention, other research shows *organic* apples have a healthier profile of probiotics compared to non-organic (for more about the benefits of organic produce, see this month's lead story).

The healthy fiber in apples also **supports satiety**, which makes you feel fuller, longer. And that can help you **lose weight**.

Indeed, simply starting a meal with some apple slices can be an effective (and tasty) weight loss strategy. You can also add apples to green salads at the start of a meal, or serve them with roasted meats as a side.

Finally, you can choose to peel apples, but I advise eating them with the skin. Many of apples' nutrients are concentrated in the skin...plus, the colorful outer layer adds to the delicious taste!

At the same time, some consumers are clearly demanding more organic produce and meat, eggs, and dairy products—making organic farming a promising career option.

That means in more places across the country, Americans will have the option to buy organic fruits, vegetables, eggs, cheese, milk, and meat from small farms in their own communities.

And that's exactly where YOU can help...

Going organic

Making a commitment to buying organic food from local growers (and the stores and restaurants they supply) can directly encourage more small, independent farms in your area.

If possible, I suggest purchasing foods that were grown (or raised) within 50 miles of the point of sale. It's also important to note that many of these farmers may farm organically—but are small enough that they don't want to go through

the hassle and expense of USDA organic certification.

So, I suggest finding a local farmer's market or nearby farm stand and talking directly to the farmers. Ask them questions about how they grow their produce or raise their cattle and poultry.

You'll make a new connection *and* help support a neighbor. As a result, both of you will help improve your own health and the health of the planet...organically! 🌱

Friendships IMPROVE emotional, mental, and physical health

How many connections do you really need?

For years, studies have shown that **loneliness** is a risk factor for chronic diseases and reduced lifespan.

In fact, research shows that single people don't tend to live as long as married couples.

Of course, there's the practical aspect of having a spouse help look after you.

But the companionship of friends and family appears to influence parts of the brain that relate to physical health, too. (One of the many ways the mind and body are connected!)

Just take the recent isolation brought on by the COVID pandemic as an example. Some research found that people worldwide had a whopping *25 percent increase* in anxiety and depression during the pandemic's first year.¹

And—that makes sense. After all,

a key to your well-being is talking with others about your concerns, feelings, and thoughts. That includes family members as well as any outside connections, such as friends and therapists (anyone you feel close enough with to share intimate details).

But how many connections do you REALLY need?

Is there a certain number of relationships that can help IMPROVE all aspects of your health?

And how do you FIND those relationships, especially in a post-pandemic world?

Well, let's explore those questions together...

Dunbar's Number

As with most things in life, the answers depend on the individual.

I know people who are amazingly self-sufficient...and others who depend on many friends to get through their day.

That said, there *is* a way of calculating how many relationships (acquaintances, friends, and family) you can successfully fit into your life at any particular point.

It's known as **Dunbar's Number**, and it was developed in the 1990s by British anthropologist Robin Dunbar.

Dunbar discovered a correlation between the brain sizes of various primates and the size of their social groups. He extrapolated that correlation to the human brain and concluded that the average person can comfortably maintain 150 relationships at a time.

Obviously, that seems like a LOT. But let's consider how Dunbar defines "relationships."

In his 1998 book, *Grooming, gossip, and the evolution of language*, he explains relationships as “the number of people you would not feel embarrassed about joining uninvited for a drink if you happened to bump into them in a bar.”

But when it comes to CLOSE friendships, the number is much smaller.

Dunbar has developed “layers” of friends within the total of 150:

1. The first layer consists of the people you're closest to, typically loved ones. Dunbar suggests it includes up to five friends and family members. (Being able to reach the deepest level of intimacy with a person requires significant focus and time.)
2. The next layer can have another 10 people that are considered your closest, most loyal social companions—the ones you can *always* rely on.
3. The third layer could total up to yet another 35 people that you simply trust.
4. Leaving another 100 people in the outer, more superficial “acquaintance” layer.

How to feel less lonely

Dunbar's Number aside, any feelings of loneliness indicate you're not getting as much social interaction as your body needs. Therefore, you may need more connections.

If that sounds like you, the good news is that you don't have to go far to find friends...or friendly acquaintances.

Simply getting involved in activities with neighbors can foster feelings of belonging.

You can also network through family members. For instance, you can talk to fellow parents or grandparents while standing around at your grandkid's sporting events.

(I remember having informal discussions with former U.S. Attorney General Bill Barr, whose daughter was on the same soccer team as mine during the late 1990s. We were both commuting long distances from home to new jobs—but talking to him about it made me feel less isolated in the circumstances.)

Because the truth is, you don't need to know all of your connections very well in order to gain the benefits of social interaction.

In fact, even interacting with your hairdresser, massage therapist, or other personal care providers has been shown to improve happiness. While you're essentially a client, these kinds of “low stakes” relationships have the potential to develop into real friendships—or simply continuously provide a social outlet.

I also recommend *reconnecting* with old friends, even if they're physically distant. If you're fortunate to keep in touch with friends going back to childhood, that adds a special emotional dimension to your life.

Deepening your friendships

Of course, investing more deeply in some close friends should also be part of the picture.

One test of a close friendship is that you don't feel the need to put on a front or to “perform” when they're around. You can be yourself without the need for self-censorship. These friends can make you feel authentic,

comfortable, energized, restored, relaxed, valued, and even vulnerable (in the sense of being open).

But when it comes to intimate connections, try to be able to turn to more than just one person.

A sole confidant may run into other obligations that can prevent him or her from being there for you all the time, or when you really need someone.

Not to mention, there may be a time when you're *both* going through challenges—and need to lean on someone else.

Also, different friends may fulfill different roles in your life. One friend may be on a collegial level where you talk about work and professional issues. Another friend may be more suitable to confidences about your personal relationships.

And, needless to say, serving as a close friend to someone else is an act of service that helps counter your own loneliness. Just as close friends help support you, you feel better by helping support them.

It's one thing to say to yourself you *have* friends...and another to actually *reach out* and *expend the time and effort* to BE a friend.

While many people's schedules require planning, doing things together spontaneously and casually can be enough to help keep friendship continuity. At the same time, sharing and knowing someone else's schedule can be an act of intimacy.

I also encourage you to send out a few random “acts of love.” If you notice a friend is going through a hard time—or you simply haven't connected in a bit—why not send them something special, like a note or treat, to help lift their spirits?

Post-pandemic friendships

Now, after more than two years of the pandemic, you may find yourself somewhat lost and between friendships.

Ultimately, you may need to choose between a pared-down social circle...or becoming overwhelmed trying to reconnect to make up for lost time.

You may also find that you don't need as many friends as you once did. Especially as you get older.

In our youth, having a large number of friends can help shape your world


view. In middle age, research shows that people who regularly interact with 10 or more friends tend to have higher levels of psychological well-being.²

But you need not keep a long list of active friends as you get older.

In fact, relationship experts say the biggest emotional, mental, and physical benefits can occur by simply going from having no friends to having one good friend.

In other words, don't feel like you have to stretch yourself thin trying to reconnect with anyone and

everyone. Just make sure you have *someone*.

As the song goes, friends can be both silver AND gold. 

Networking vs. friendship

The question of "networking" is a little different. For example, the exercise "Six Degrees of Kevin Bacon" is meant to illustrate that every person has some connection with every other person through an intermediary number of six other people. In my case, the number is actually one because I often sat next to Kevin Bacon's father at civic dinners in Philadelphia, where the elder Mr. Bacon served as city planner!

Official dietary recommendations based on LIES?

Back in 1973, my colleague, William Rathje, an archaeologist at the University of Arizona, conducted a famous study known as the Tucson Garbage Project.

He and his team of researchers asked people in neighborhoods near the university what they ate—and compared their answers to what was *actually* in their garbage cans.

Strikingly, the researchers discovered that actual consumption of fresh fruits and vegetables was MUCH LOWER than what was reported. And consumption of processed foods (and alcohol) was MUCH HIGHER than reported.

I thought about this "garbage in, garbage out" analysis when I read about a new study showing that the vast majority of people believe their diet is MUCH HEALTHIER than it actually is.

Of course, this may not *sound* like a big deal. (After all, we may all tend to exaggerate!)

That is, until you consider that much of the government and other "official" dietary recommendations are based on studies in which participants SELF-REPORT their food consumption.

Anyone else see a problem here?

In fact, two routine approaches to studying diet are to:

1. Ask participants what they recall eating during any given time period.
2. Ask how frequently they consume different foods on a regular basis.

Needless to say, this *does not* involve the scientific standards of measurement needed to develop evidence-based diet recommendations.

And that has been a BIG problem for decades.

No matter how sophisticated a study's measurements for health

outcomes or statistical analysis are, the results are only as good (or weak) as the actual (flawed) information on diet.

Which leads me to the results of a new study...

The imaginary, "healthy" diet

Researchers asked more than 9,700 men and women about their diets in two different ways.

First, the participants rated the quality of their diets as either excellent, very good, good, fair, or poor. The participants also completed a 24-hour dietary recall food questionnaire.

Then, the researchers compared the two sets of answers for each participant.

Results showed that about 85 percent of people were *inaccurate* in rating the quality of their diets. That included a whopping 99 percent who said their diet was healthier than it actually was!

In fact, only the participants who rated their diets as poor tended to be accurate.

So, why such a disparity?

The researchers said the problem could simply be that *people don't understand what constitutes a healthy diet.*

Another theory is that people may understand what a healthy diet is, but don't know how to successfully implement it.


They think they need to make big changes—then get overwhelmed and settle for wishful thinking about their food.

But following a healthy, balanced

diet doesn't have to be hard. In fact, it really boils down to three easy steps:

1. **Eat a Mediterranean diet**, which is rich in organic fruits and vegetables, full-fat dairy (milk, cheese, yogurt, eggs), grass-fed and -finished meat (especially lamb), seafood, nuts and seeds, olive oil, and moderate consumption of alcohol.
2. **Cut out sugar whenever you can.** The biggest culprits of a poor diet are processed baked goods and sugary drinks. Simply limiting those two things can make a big difference for your overall health.

3. **Stay away from ALL processed foods.** These Frankenfoods are usually loaded with artificial ingredients, sugar, unhealthy fats, and agricultural toxins. An easy way to stay away from them is to shop the outer perimeter of the grocery store. Or to find a local farmer's market or nearby farm stand, as I report on page 5.

Bottom line? By incorporating these simple steps into your daily life, you'll find you don't have to exaggerate the next time someone asks how healthy your diet *really* is. 

Citations for all articles available online at www.DrMicozzi.com

NEWS BRIEF

Why you'll WANT a "beer gut"

Despite what its name implies, Oktoberfest actually begins on September 17th in Munich, Germany and ends on the first Sunday in October.

This celebration of beer was cancelled last year, making fans of the amber brew even more motivated to raise their mugs this year.

But you don't have to make the trek to Germany to experience Oktoberfest. Many American cities have their own versions.

Plus, you can even create your own mini-Oktoberfest featuring your favorite types of beer at home! (Bonus points for inviting friends to join in on the celebration, as I report on page 6.)

In fact, I highly encourage making **beer** a part of your overall, healthy, balanced diet. (It's not something only to enjoy—and celebrate—during Oktoberfest!)

After all, there's plenty of science showing that moderate consumption can be *very* beneficial for your health.

Of course, a brew or two can help you **relax and reduce stress**. And research shows that beer ingredients like alcohol and hops can help promote **heart health, ward off dementia and diabetes, and strengthen your bones**.

Beer can even help keep your **eyes** healthy, giving new meaning to the term "beer goggles!"

Plus, a new study shows that beer can help keep your all-important **gastrointestinal (GI) microbiome** healthy...

The GI microbiome refers to the huge assembly of probiotic bacteria and other microorganisms (such as yeast) that normally reside in your gut. Research increasingly demonstrates the importance of GI probiotics for the body and brain. (Not to mention, the majority of your immune cells reside in your GI system.)

But there are a variety of factors that can harm this microbiome—including autoimmune diseases and other health conditions, stress, and medications like antibiotics. As well as **diet**.

Which leads me to the new beer study...

Researchers in Portugal recruited 19 healthy men who were moderate consumers of beer. The men were divided into two groups. One group drank one bottle of lager-style beer with dinner for four weeks. The other group drank the same amount of nonalcoholic beer.¹

Both before and after the study,

researchers analyzed the probiotic content in participants' stools. After four weeks, both groups had increased probiotic diversity (which is linked to better GI microbiome function). Plus, both groups had an increase in the activity of a key enzyme that indicates better intestinal function.

This study dovetails with previous research showing it's not the alcohol in beer that confers probiotic benefits. Instead, the polyphenols and other ingredients in the hops (which give beer its great aroma and taste) may be what helps keep the GI microbiome healthy.

You can also naturally support your GI microbiome and increase your probiotic diversity with a diet rich in a plant-based foods and naturally fermented foods (like yogurt, sauerkraut, and kimchi).

Plus, foods like apples (see page 4), asparagus, bananas, flaxseeds, garlic, leeks, and onions are considered prebiotic, meaning they support the probiotics of the GI microbiome.

So, I suggest you combine these healthy foods with a mug or two of beer this fall. You'll not only help improve your health, but you'll also have a whole new meaning for the term "beer gut!"