2023 Consumers’ Guide to Pasture Based Meats and Dairy
Safe and Nutritious Food

Consumer concerns over food safety and quality are fueling demand for pasture raised farm products. Ruminants were meant to eat grass and people were meant to eat them. As omnivores, about the only thing humans cannot eat is grass. To capture the nutritional value of grass, which has harvested the sun's energy, humans have to eat animals that capture that nutritional value. Research indicates grass-based products such as meat, poultry, milk, cheese, and eggs have healthy benefits for consumers.

Plant-based burgers vs. beef burgers

While meat alternatives may have a lower environmental impact when compared to feedlot-finished beef, it turns out that well-managed grass-fed beef is better for the environment than both of them. Pasture-based livestock systems fix at a minimum all the greenhouse gases that they emit (and sometimes more) even when taking into account all aspects of the production process.*

Regenerative Agriculture

Regenerative Agriculture is a term used to describe growing healthier farms by treating a farm as an ecosystem. Farmers manage a farm’s plants and animals together to interact positively to:

- Enrich soil health which leads to healthier vegetables, crops, and livestock.
- Increase farm biodiversity, growing the numbers of different plants and animals (including insects and other critters).
- Improve long-term farm productivity, and strengthen economic and community benefits.

Our pasture-based farmers are excellent examples of farmers who are using the principles of regenerative agriculture to produce delicious and healthy meats and dairy products for their local communities.

*Plant-Based Meats, Human Health, and Climate Change: Stephan van Vliet¹, Scott L. Kronberg² and Frederick D. Provenza³
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²Northern Great Plains Research Laboratory, USDA-Agricultural Research Service, Mandan, ND, United States
³Department of Wildland Resources, Utah State University, Logan, UT, United States
The Maryland Grazers Network is a group of farmers and farm/environmental professionals who have organized to help farmers and the Chesapeake Bay. The Network provides experienced beef, sheep, or dairy grazers to work as mentors with interested farmers.

We also assist farmers with their marketing in order to effectively connect them with the growing consumer interest in pasture-raised products.

The Grazers Network has a strong focus on both farm economics and water quality. Improving the quality of pastures and hay can help many farmers improve their bottom line. Healthy pastures and healthy soils also greatly reduce the likelihood of soil and nutrient runoff into local streams, and ultimately the Bay.

Acknowledgments
Thanks to all the farmers who contributed photos, ideas and recipes.

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Network Contacts
If you are interested in participating in the Maryland Grazers Network and/or attending the grazing events noted in this calendar, contact your local Soil Conservation District/NRCS or Extension office, or one of the people listed here.

Maryland Soil Health Advisory Committee visits Clagett Farm to learn from Grazers Network Co-Coordinator Michael Heller on how grazing has restored soils that had been depleted from years of tobacco and corn production.

PHOTO CREDIT: ROB SCHNABEL

Staff from Maryland Department of Natural Resources Park Service and the US Fish and Wildlife Service observe a rain simulator and learn how regenerative grazing improves water infiltration and retention. Providing permanent, diverse plant groundcover builds soil compared to corn or soybean monoculture fields which can have significant soil erosion during rain events.

PHOTO CREDIT: ROB SCHNABEL

The Maryland Grazers Network is a member of the Mountains to Bay Grazers Alliance, a network of organizations supporting Regenerative Agriculture. For more information visit www.m2balliance.org
Farmer Wit & Wisdom

FUTURE HARVEST CONFERENCE: A TIME TO GROW REGENERATIVE FARMING FOR PEOPLE AND THE PLANET

Every January for the past 23 years, Future Harvest has hosted the largest regenerative agriculture conference (500+ people) in Maryland. This will be held adjacent to the University of Maryland from January 12-14. Historically the conference focused on farmer training but over recent years it has increased the numbers of sessions geared towards educating consumers. This is a wonderful gathering of farmers and consumers. The Maryland Grazers Network has been proud to help sponsor the conference. For more information on this year’s conference sessions and speakers please visit futureharvest.org.

The Art & Science of Grazing

REGENERATIVE AGRICULTURE & NUTRIENT DENSITY OF FOOD

In “What Your Food Ate: How to Heal our Land and Reclaim our Health” the recent book by David Montgomery and Anne Bilke, the authors share research where food grown through regenerative agriculture has twice the amount of nutrient density as food grown conventionally. 100% Grass Fed meats have marbling and fat with a yellowish color. This is a good thing as the color comes from pigments called carotenoids, in the plants the animals eat. Studies have shown that when carotenoids figure in the human diet, people tend to be healthier in general, and to exhibit lower mortality rates from numerous chronic diseases.
**Farmer Recipe | Wine Braised Brisket with Gremolata**  
**RECIPE FROM LAUREN TAYLOR, LIBERTY DELIGHT FARM REISTERSTOWN, BALTIMORE COUNTY**

**Ingredients:**  
- 2 tbsp vegetable oil  
- Salt and pepper  
- 5lb brisket  
- 1 sweet onion, quartered  
- 2 carrots, roughly chopped  
- 4 garlic cloves, smashed  
- 3 cups dry red wine  
- 1 cup diced tomato  
- 4 sprigs fresh thyme  
- 2 cups apple cider  
- 2 bay leaves  
- 4 garlic cloves, minced  
- 1 cup parsley, chopped  
- Zest of one orange  
- 1 tbsp horseradish

**Gremolata garnish:**  
- 2 cloves garlic, minced  
- 1 cup parsley, chopped  
- Zest of one orange  
- 1 tbsp horseradish

**Directions:**  
1. Preheat oven to 325 degrees  
2. In a large pot, heat oil  
3. Pat meat dry and cover in salt and pepper  
4. Place in pot and thoroughly brown on both sides  
5. Remove meat from heat, and place in carrots, onions and garlic  
6. Deglaze pot with wine  
7. Add tomato, thyme and bay leaves and stir  
8. Place meat back into pot  
9. Cover the pot and cook for 3½ to 4½ hours  
10. Refrigerate overnight  
11. Before serving, remove solid fat that has accumulated on top of the brisket  
12. Slice meat into ½ inch slices and place back in pot  
13. Cook at 350 degrees for 1 hour  
14. Combine gremolata ingredients and serve meat with gremolata on top

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Farmer Wit & Wisdom

OLDER FARMERS & TRAINING THE NEXT GENERATION

According to the 2017 agricultural census, the average age of farmers is 57 years old. In America, farmers 65 years old and older make up 34% of the farmer population. In contrast, this age group is only 14% in the non-agriculture workforce. The Maryland Grazers Network and Future Harvest are partnering together to train the next generation of regenerative farmers through the Future Harvest Beginner Farmer Training Program. To learn more about this program please visit futureharvest.org.

The Art & Science of Grazing

REGENERATIVE GRAZING ON DIVERSE PASTURES

When farmers talk about ‘grass’ we are really referring to all the plants in the pasture – the grasses, like Orchard Grass, Timothy, and Brome, but also the forbs (herbaceous flowering plants) like clovers, alfalfa, and even plants typically referred to as weed, like dandelions, pigweed, lambs quarters, and plantain. In fact, laboratory forage analyses show that many of these so-called weeds have higher feed and nutrition values than alfalfa which is considered one of the best forage plants. Diverse pastures with a wide variety of plants are usually the best for the animals.
**Farmer Recipe | Chorizo Y Papas Taco**

**RECIPE FROM J.J. MINETOLA  MISE EN PLACE FARM  DAVIDSONVILLE, ANNE ARUNDEL COUNTY**

**Ingredients:**
- 1 lb. loose chorizo sausage
- 2 lbs. sweet potatoes – peeled and cut into 1 inch pieces
- 4 garlic cloves
- 2 tbsp olive oil
- Chipotle aioli/mayo
- Salt and pepper
- 1 red onion – sliced thinly
- ¼ cup sugar
- 1 cup white vinegar
- 1 tsp salt
- 1 tsp pickling spices
- 8 corn tortillas - warmed

**Directions:**
1. Make pickled onions. Bring sugar, vinegar, salt, pickling spices and 1 cup water to a simmer to dissolve sugar and salt. Pour over onion in a jar.
2. Place sweet potatoes, garlic, and about 1 gallon cold water in a large pot and bring to a boil. Simmer just until knife tender. Pour into a colander and cool immediately with cold water.
3. Heat a cast iron skillet or nonstick pan over medium heat and add olive oil. Add potatoes and cook for about 5 minutes to start browning. Salt and pepper to taste.
4. Add chorizo and mix into potatoes and continue cooking until chorizo is cooked through, about 10 minutes.
5. Divide chorizo potato mixture among tortillas and top with chipotle aioli and a few pickled onion slices.
The Johns Hopkins Center for a Livable Future works towards a healthy, equitable, resilient food system from within the Department of Environmental Health and Engineering. To learn more about the world’s food system visit their website clf.jhsp.h.edu.

One of the initiatives the Center leads is the Maryland Food System Map. This project provides many maps illustrating farm types, community resources, demographics, environmental indicators, among other variables. For example, you can look up the number of dairy farms within each of the Counties or see where farms are enrolled in land conservation. Visit this site to learn more about Maryland’s Food system: mdfoodsystemmap.org

**The Art & Science of Grazing**

**ROTATIONAL GRAZING**

This is a common grazing practice in which grass farmers move their animals to fresh pastures every day or two, using up to 40 different paddocks on a farm. This provides the animals with good, high-energy nutrition from pastures, and allows the grasses and clovers in the rested pastures a chance to re-grow for a month or more without being immediately re-grazed. By allowing the cows’ favorite forages to re-grow without grazing pressure these plants can send energy reserves to their roots, and then they are able to really thrive in a pasture. Its good for the pastures, which in turn is great for the cows.
### Farmer Recipe | Beef Wellington  
**ROBIN WAY, RUMBLEWAY FARM, CONOWINGO, CECIL COUNTY**

**Ingredients:**
- Beef tenderloin
- Filo dough or puff pastry
- Butter
- Olive oil
- Toasted bread crumbs

**Directions:**
1. Heat olive oil in a sauté pan
2. Brown filet until all sides are browned and then remove from heat. Allow to get to room temperature
3. Preheat oven to 400 degrees
4. Melt butter in small dish
5. Unroll filo dough and cover with damp cloth
6. Remove one sheet of dough and paint it with butter, then place a small scattering of breadcrumbs on top
7. Place another sheet of dough on top of previous sheet and butter it
8. Place cooled filet on prepared filo and fold over like a book, tucking edges underneath and painting the top with butter
9. Repeat for all medallions
10. Bake for 15 minutes and let rest before serving

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**Notes:**
- First Day of Spring
- Ramadan Begins
- St. Patrick’s Day
- US Daylight Saving Time Begins at 2:00am

**Monthly Events:**
- March 17: St. Patrick’s Day
- April 2023: New Moon
- April 21, 2023: Full Moon

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**Image:**
- Maryland Grazers Network logo

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**New Moon • Full Moon ○**
Farmer Wit & Wisdom
VOLUNTEER TO PLANT TREES ALONG STREAMS ON FARMS

Every Spring and Fall the Chesapeake Bay Foundation leads planting events on farms to improve water quality and wildlife habitat. Stream side or “riparian” forest buffers are one of the most cost-effective ways to reduce erosion and filter pollution prior to entering local streams and the Bay. Trees are also critical to help mitigate climate change through carbon sequestration. Planting trees is a fun way to give back to the Planet. These events are suitable for all ages and organizations. To learn more about upcoming volunteer planting events check online at cbf.org or email mdrestoration@cbf.org.

The Art & Science of Grazing
HEALTHY PASTURES = HEALTHY SOILS = HEALTHY BAY

In the spring pastures grow faster than the animals can graze them. But come December, January, and February it can be helpful/necessary to have some stored feed to keep the animals well-fed through the winter. One solution for many grazers is to cut hay from a few of the fast growing spring pastures and save this hay for winter feeding. Then when the pastures regrow they will graze these pastures in the summer and fall when more pastureland is needed as pastures are less productive.
### Farmer Recipe | Braised Beef Shank

**RECIPE FROM DARLENE GOEHRINGER, POP’S OLD PLACE FARM HURLOCK, DORCHESTER COUNTY**

**Ingredients:**
- 2-4 beef shanks
- 3 tbsp olive oil
- 1 sprig fresh rosemary
- Couple of sprigs fresh oregano
- 2 whole cloves garlic
- 1 diced onion
- 1 jar whole tomatoes in juice

**Directions:**
1. Heat olive oil.
2. Add shanks and brown good on all sides.
3. Add the rest of ingredient.
4. And 1/2 cup of water or red wine.
5. Cover tightly and finish in oven for 2-3 hours on 325° until beef is fork tender and falls from bone.
6. Remove rosemary and oregano stems.
7. Take meat off bones and remove marrow from inside beef shank bones and add both back into pot.
8. Serve over pasta, polenta or mashed potatoes.
Farmer Wit & Wisdom
GRASSLAND BIRD HABITAT

Well managed pasture with rotational grazing can provide nesting habitat for a number of grassland nesting birds, many of which are in significant decline due to the reduction in meadow/grassland habitat. Some common birds that could nest in our mid Atlantic pastures include Eastern meadowlark, grasshopper sparrow, and bobolink. It is helpful to have a pasture with at least 25% warm season grass pasture as part of a larger grazing system. Certain birds prefer warm season grass bunch grass habitat while others will nest in cool season pastures. It is very detrimental to grassland nesting birds to mow pastures during the nesting season.

The Art & Science of Grazing
MARYLAND BIODIVERSITY PROJECT (MBP)

MBP is a non-profit that catalogs all the species found in Maryland. They work with state agencies, academia, other nonprofits, and various groups to do as much as possible for conservation, science, and outreach. To date over 20,000 species have been recorded, including 12,000 with pictures. To learn more about this project visit marylandbiodiversity.com

May 2023
Farmer Recipe | Grilled Balsamic Skirt Steak

**RECIPE FROM GINGER MYERS, EVERMORE FARM WESTMINSTER, CARROLL COUNTY**

**Ingredients:**
- ¼ cup balsamic vinegar
- 1 tbls Worcestershire sauce
- 2 tsp dark brown sugar
- 1 garlic clove, minced
- 1 lb skirt steak, trimmed and cut into 4 pieces
- Cooking spray
- ½ teaspoon kosher salt, divided
- ¼ teaspoon freshly ground black pepper

**Directions:**

1. Combine first 4 ingredients in a large zip-top plastic bag. Add steak, turning to coat; seal and marinate at room temperature 25 minutes, turning once. Remove steak from bag; discard marinade.

2. Heat a large grill pan over medium-high heat. Coat pan with cooking spray. Sprinkle both sides of steak with 1/4 teaspoon salt and pepper. Add steak to pan; cook 3 minutes on each side or until desired degree of doneness. Remove steak from pan; sprinkle with remaining 1/4 teaspoon salt. Tent with foil; let stand 5 minutes. Cut steak diagonally across the grain into thin slices.

**Ingredients:**
- Cooking spray
- ½ teaspoon kosher salt, divided
- ¼ teaspoon freshly ground black pepper

**Cinco de Mayo**

**Mother’s Day**

**Memorial Day**
**Farmer Wit & Wisdom**

**HUMAN HEALTH & 100% GRASS-FED**

A study from the American Journal of Clinical Nutrition says that consuming more dairy products may help people lower their risk of heart attack – provided the cows were 100% grass-fed. The reason grass-fed milk is protective is that it has up to 5 times more conjugated linoleic acid (CLA). CLA is a healthy fat found in meat and milk of grazing ruminant animals.

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**The Art & Science of Grazing**

**DAIRY MONTH**

Celebrate Dairy Month in a delicious way. There are numerous on-farm small creameries in our area where you can buy freshly made ice cream and yogurt. You can get amazing milkshakes made from milk and ice cream from cows raised on 100% grass. Go online and search “MDA Ice Cream Lovers Guide,” or check the “Amazing Dairy Directory” online. Your family will love it! And you can celebrate all year round.
**Farmer Recipe | Maple Vanilla Ice Cream**  
**RECIPE FROM PEGGY STRITE - CREEK BEND FARM WILLIAMSPORT, WASHINGTON COUNTY**

### Ingredients:
- 1 cup heavy cream
- 2 eggs
- ½ tsp stevia
- 1 tsp vanilla extract
- 1 tsp maple extract
- Maple syrup to taste
- Whole milk to fill remainder of quart container

### Directions:
1. Mix at high speed for 30 seconds
2. Refrigerate for several hours
3. Pour into 1 quart freezer container

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**Father’s Day**  
**Juneteenth**  
**First Day of Summer**  
**Eid al-Adha Begins**  
**Eid al-Adha Ends**

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**New Moon**  
**Full Moon**
Farmer Wit & Wisdom
MARYLAND FARMS & MILLION ACRE CHALLENGE

Maryland has 12,429 farms on approximately 2 million acres. The average size farm is 160 acres. The Million Acre Challenge is a partnership initiative to get half of Maryland’s farmland, a million acres, to regenerative status. The Challenge helps Maryland farmers build soil health, increase farm profitability and improve water quality – while making farms more resilient and part of the solution in the face of climate change. Regenerative grazing applies all 5 soil health principles and is one of the fastest ways to restore our soils. For more information on the Challenge visit millionacrechallenge.org

The Art & Science of Grazing
IMPROVING FARMERS BOTTOM LINE BY REDUCING COSTLY INPUTS

Legumes, such as red or white clover, reduce or eliminate the need for nitrogen fertilizer, as they have the special ability to capture nitrogen from the air (which is 78% N2) and make it available for all plants. The legumes have symbiotic bacteria called rhizobia within small nodules on their roots which are able to capture the atmospheric N2 and make it into a form of nitrogen that is a wonderful, natural fertilizer for plant growth. This saves farmers money and is good for the Chesapeake Bay.
**Farmer Recipe | Lamb Burger Sliders**

**RECIPE FROM GINGER MYERS, EVERMORE FARM, WESTMINSTER, CARROLL COUNTY**

**Ingredients:**
- 1 lb good quality ground lamb
- 1 lb beef
- 2 tbsp minced garlic
- 2 tbsp roasted garlic pepper seasoning
- 2 tbsp chopped fresh oregano leaves
- 3 tbsp minced red onion
- 2 tbsp whole-grain mustard
- 1 ½ tbsp olive oil or other oil
- 8 silver dollar onion rolls, halved
- 1 Roma tomatoes, each cut into 4 pieces
- 8 washed baby red lettuce leaves, from 1 head
- 1 red onion, shaved in slices

**Directions:**
1. In mixing bowl add the ground lamb, beef, minced garlic, garlic pepper seasoning, oregano, red onion and mustard.
2. Mix the ingredients together gently. Do not overwork the meat or it will become tough.
3. Form the mixture into mini burgers, approximately 2 ½ oz. each, and put on a pan lined with waxed paper or parchment paper. Refrigerate for 5 minutes.
4. Toast the buns in a large nonstick saute pan, griddle or cast iron pan over low heat. Remove the rolls to a platter.
5. Add the oil to the pan, and when the oil is hot add the lamb burgers. The burgers must caramelize the fats, so do not flip or move them around in the pan. Let fry for about 3 to 5 minutes each side, depending on your desired doneness.
Farmer Wit & Wisdom
CARBON FARMING AND REDUCING SOIL LOSS

Buying pasture-raised meats and dairy supports carbon farming and building soil health. The soil is the second biggest carbon reservoir on the planet, second only to the oceans. And yet, at its current rate of soil loss the United States is expected to run out of topsoil by the end of the 21st century. Rotational Grazing provides permanent ground cover year-round, protecting the soil from erosive forces caused by heavy rain. Cows grazed on properly managed healthy pastures help sequester carbon in the soil at a rate higher than carbon being released to the atmosphere. Organic matter in soil not only sequesters carbon but it increases the soils water holding capacity, reducing flooding and making farmland more tolerant.

Katadhin ewes help manage grass on Vineyards at Dodon near Davidsonville, Anne Arundel County. PHOTO CREDIT: TOM CROGANS

The Art & Science of Grazing
WORLD’S RESOURCES & THE 70/30 PHENOMENON

Don’t be fooled by spurious claims that industrial agriculture is needed to feed the world. Matt Bittman in a NY Times article cites research the ETC group, a Canadian research organization, that estimates that industrial agriculture uses 70% of the world’s agricultural resources to provide only 30% of the world’s food; on the other hand smaller farms directly feeding local communities produce 70% of the world’s food using only 30% of the world’s agricultural resources!

August 2023
**Farmer Recipe | Blue Cheese Burgers**  
*RECIPE FROM JD SCHMIDT, THE FARM AT GLEN MARY, PARK HALL, ST. MARY’S COUNTY*

**Ingredients:**
- Ground beef, 1 pound 100% grassfed
- 1 tablespoon of olive oil
- 1 tablespoon of Worcestershire
- 1 egg, from pastured chickens
- Salt and pepper to taste

**Directions:**
1. In a mixing bowl, add all of the ingredients. The egg will act as a binder to help keep the meat together. Mix well.
2. Form half inch thick patties, then using your thumb, gently indent the center of patty.
3. Heat grill and wipe grill grates with a bit of olive oil to help avoid sticking.
4. Cook for 4 minutes on either side for medium rare burgers, cook for medium cook for 5 minutes on each side.
5. Add blue cheese to burgers 2 minutes before the burger is at desired doneness.
6. Transfer to plate, and let rest for a few minutes.
7. Top with arugula on a lightly toasted brioche bun and enjoy!
Farmer Wit & Wisdom

POLLINATORS HABITAT

Pastures that have a diversity of flowering species mixed in with grasses can have great benefits to pollinators. Many legumes, for example clover, have both nutritional values for livestock and flowers for pollinators. Many other species can have pollinator benefits and it is best to check with your local grazing expert on enhancing pastures for pollinators. Overgrazing or mowing during the flowering season is detrimental to pollinators.

The Art & Science of Grazing

FREE RANGE - AN AMBIGUOUS TERM

Do not be fooled into thinking that every product labeled free range automatically means it was pasture ranged. Free Range is an ambiguous term used as a marketing tool that can be applied legally to any poultry with access to an outside area that they may or may not ever enter, and that may or may not have a blade of grass. Check with your farmers to see that the birds are truly pasture-raised; that is, they can get as much fresh grass as they want to eat.

Beehives are common on regenerative grazing farms given the diverse pollinator habitat. MD Dept. of Natural Resources and US Fish and Wildlife Service tour Clagett Farm to learn about regenerative agriculture.

PHOTO CREDIT - ROB SCHNABEL
**Farmer Recipe | Peruvian Grilled Chicken with Green Sauce**

**RECIPE FROM MARY KATHRYN BARNET – OPEN BOOK FARM, MIDDLETOWN, FREDERICK COUNTY COUNTY**

**Ingredients:**
- 1 whole chicken 4–5 lbs
- The Rub:
  - 4 tsp kosher salt
  - 2 tsp of ground cumin
  - 2 tbsp of paprika
  - 1 tsp freshly ground pepper
  - 3 medium cloves of garlic
  - 2 tbsp of white vinegar
  - 3 jalapenos, remove seeds and chop
  - 1 cup of fresh cilantro
  - 2 medium gloves of garlic
  - ½ cup mayonnaise
  - 2 tbsp of olive oil

**Directions**:
- **The Rub**: Combine salt, cumin, paprika, pepper, garlic, vinegar, and oil in a small bowl and mix until it becomes a smooth paste.
- **Whole chicken**: Place chicken breast side down on cutting board. Using shears, remove the backbone by cutting on either side of it. Turn chicken over and press firmly of breast to flatten chicken. Add the Rub all over the chicken.

**Green Sauce**:
- 3 jalapenos, remove seeds and chop
- 1 cup of fresh cilantro
- 2 medium gloves of garlic
- ½ cup mayonnaise
- ¼ cup of sour cream
- 2 tsp fresh lime juice
- 1 tsp white vinegar
- 2 tbsp of olive oil
- Kosher salt and freshly ground pepper to taste

**Directions**:
- Combine jalapenos, cilantro, garlic, mayonnaise, sour cream, lime juice, and vinegar in a blender. While running blender slowly add olive oil until smooth. Add salt or pepper to taste. Place in refrigerator and sauce will thicken.

**Cooking chicken**:
- Turn on grill, having one side on low heat and the other medium heat. Place chicken skin side up on the cooler side of the grill with legs facing the hotter side. Cook for 20 minutes then flip chicken over and cook until the temperature in the thickest part of the chicken reaches 150 degrees. Remove chicken from grill let rest for 5 – 10 minutes Carve and Serve with Green Sauce.
Farmer Wit & Wisdom
FARM TO TABLE EVENTS ON FARMS IN THE FALL

Every Fall throughout Maryland you can find farm events featuring food grown from the hosting farms. This is an excellent way to meet local farmers and share in the season’s bounty. Join CBF’s Clagett Farm as we host our farm to table event on Saturday, October 14th. This event features pasture raised meats prepared by regional chefs and farmers as you walk through stations throughout the farm. Hay rides allow you to see the sheep and cows grazing on diverse pastures. Education staff teach the water quality benefits of these pastures with demonstrations and tour the native plant nursery as you feast on lamb, beef and pork sliders, not to mention the root beer floats with ice cream from a grass-based creamery. Visit cfb.org to learn more about this event.

The Art & Science of Grazing
THE TRUE LOCAL ECONOMY & YOUR DOLLARS

Purchasing meats and dairy from local farmers has a powerful impact on your local community. Every dollar you spend with a local farmer will cycle another $2-$3 into your local economy, as farmers spend their money locally on labor and purchases from local feed stores. This helps save farmers and farmland, and strengthens your community. Conversely, every dollar you spend at a non-locally owned grocery store or supermarket chain brings only approximately 20 cents into the local economy.
### Farmer Recipe | Lamb Meatballs

**RECIPE FROM DARLENE GOEHRINGER, POP'S OLD PLACE FARM HURLOCK, DORCHESTER COUNTY**

**Ingredients:**
- 1 lb ground lamb
- Salt and pepper
- 1 egg
- 1 tbsp chopped oregano

**Stuffing:**
- 3 cups fresh spinach
- 1 clove diced garlic
- 1 tbsp olive oil

**Directions:**
1. Mix meatball ingredients together and divide into 7 meatballs
2. Sauté stuffing ingredients, let cool, and then squeeze out excess moisture
3. Flatten meatball mixture and put 1 tsp stuffing inside of each
4. Place in oven-safe dish and pour 16 oz marinara sauce over top
5. Seal with foil or lid
6. Bake at 350 degrees for 45 minutes

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- **Indigenous Peoples Day** (14th)
- **Halloween** (31st)
- **Save the Date! CBF’s Burgers and Brews for the Bay.** Look for tickets at cbf.org as the event gets closer.
Farmer Wit & Wisdom
SOILS – AMAZING FACTS
A single teaspoon of healthy soil can hold more than one billion living organisms – bacteria, fungi, protozoa, and nematodes. There is more genetic diversity in healthy soil than in all the plant and animal life on the Earth’s surface.

Thanks to the vast diversity of life in healthy soil, scientists have found a ground-breaking new anti-biotic, Pseudouridimycin, produced by a microbe in soil found in Italy. This antibiotic is effective against super bugs, which have become resistant to most existing antibiotics. And, because of its structure and mode of action it is only 1/10 as likely as most antibiotics to have bacteria effectively develop resistance to it.

The Art & Science of Grazing
AMAZING GRAZING DIRECTORY OF LOCAL FARMERS
In order to guarantee getting a pasture-raised heritage turkey, you may want to order your bird a month ahead of time. The Amazing Grazing Directory has a listing of farms that sell pasture-raised turkeys and you can go to the product index to find farms that sell these birds. Heritage birds may cost more but for a special family occasion and holiday they are well worth the cost. Many say they are the best tasting turkeys they’ve ever had! New grass-based farmers are added to the Directory as they have product available.

The “Go-Grassfed” initiative is led by Future Harvest. The Amazing Grazing Directory can be found at futureharvest.org
Farmer Recipe | Turkey Masala  
RECIPe FROM ROBIN WAY OF RUMBLEWAY FARM, CONOWINGO, CECIL COUNTY

Ingredients:
- 4 medium onions, sliced
- 4 tbsp olive oil
- 2 tsp ground turmeric
- 2 tsp cumin
- 2 tsp coriander
- 1 lb potatoes, cubed
- Salt and pepper

Directions:
1. In a large pan, fry the onions in oil until soft and golden
2. Add garlic, followed by ginger and spices. Stir well
3. Put in turkey pieces and season with salt and pepper (Great use of leftover Thanksgiving turkey)
4. Cook for five minutes, then add the potatoes and coconut milk and about one cup of water
5. Simmer for 30-40 minutes or until tender
6. Add nuts and raisins and cook a few more minutes before serving

- 1 tsp cumin
- 1 tsp coriander
- Turkey meat cubed
- Salt and pepper
- 1 lb potatoes, cubed
- 1 can unsweetened coconut milk
- ¾ cup cashews
- 2 tbsp raisins
Farmer Wit & Wisdom

REGENERATIVE FARMING VS CONVENTIONAL

In his book "Dirt to Soil - One Family's Journey into Regenerative Agriculture," Gabe Brown shares how farming with nature transformed his farm, making it more productive and greatly reduced costly inputs of fertilizer and pesticides. By farming regeneratively, planting diversity and minimizing disturbance, either through tilling or chemical inputs, the soil biology is able to provide crops the necessary plant food naturally. Plants and soil microbes have a symbiotic relationship where plants provide liquid carbon through their roots during photosynthesis and in return the microbes bring the necessary nutrients to the plant roots which keep the plants healthy. Conventional agriculture lacks diversity, leading to less soil biology, and the dependence on costly chemicals.

The Art & Science of Grazing

PARTNERSHIPS - MOUNTAINS TO BAY GRAZERS ALLIANCE

The Mountains-to-Bay Grazers Alliance networks organizations within the agricultural community to support and encourage wider adoption of rotational grazing and related conservation practices that benefit water quality, improve soil health, and boost farm economies. Resources include local steering member contacts, quarterly grazing newsletters and an annual grazing conference. The Conference is held in December at the Washington County Agriculture Education Center in Hagerstown, Maryland. Speakers have included some of these national and international regenerative grazing experts, Gabe Brown, Nicole Masters, Jim Gerrish and Fred Provenza. To learn more about the Grazers Alliance visit the web site m2balliance.org.

This jersey takes time to smile for the camera as the others graze in the snow. Blue sky with South Mountain and the Appalachian Trail are in the distance at Holterholm Farm, in Jefferson, Frederick County. PHOTO CREDIT: ROB SCHNABEL
Farmer Recipe | Herb Roast Leg of Lamb  

RECIPE FROM NORA CRIST WITH CLARK’S ELIOAK FARM  ELICOTT CITY, HOWARD COUNTY

**Ingredients:**
- 1 leg of grass-fed lamb
- 2 garlic cloves, pressed
- 1 tsp minced marjoram
- 1 tsp thyme
- 1 tsp rosemary
- 2 tbsp olive oil
- 2 tbsp flour
- 1 cup dry vermouth
- 1 cup water
- 1 tsp salt
- Freshly ground pepper
- 2 tbsp flour
- 1 cup dry vermouth
- 1 cup water
- 1 tsp salt
- Freshly ground pepper

**Directions:**
1. Mix garlic with salt, pepper and olive oil, spread mixture on lamb
2. Sprinkle herbs and flour all over lamb
3. Pour vermouth and water into bottom of roasting pan
4. Roast at 275 degrees for 1 hour per pound
5. Baste often in the first 45 minutes
6. Continuously add water to prevent pan from drying out

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**Calendar Notes:**
- Christmas Day
- Kwanzaa
- Winter Solstice
- Hanukkah Begins
- Hanukkah Ends

**Maryland Grazers Network**