

2022

Pennsylvania Grazing Calendar



Grass-Based Livestock Production in Pennsylvania

Grass-based livestock production has helped many farmers to balance expenses and income, while reducing labor since animals do most of the forage harvesting and manure spreading. Relative to confinement production, grazing operations generally have lower start-up and maintenance costs, with less need for animal housing, manure storage, and equipment for grain production. Under grazing production systems, veterinary expenses and cull rates may drop, due to fewer foot ailments, mastitis, and other herd health problems, since the animals are more active and outside.

Managed grazing is both an art and science, with constant adaptations for weather, forage growth, soil conditions, livestock needs, and many other factors. It requires managing the intensity, frequency, duration, timing, and animal numbers on pasture according to the rate of plant growth, vegetation density, plant types, and livestock nutritional needs, to ensure that animals get high-quality forage every day.



PHOTO BY RUSS WILSON

Climate Resilience

Climate change is upending normal weather patterns, leading to erratic temperature fluctuations and periods of both intense precipitation and drought, all of which pose great difficulties for Pennsylvania farmers, such as challenges in planting and harvesting crops, lower yields, loss of topsoil through erosion, flooding, damage due to pests and plant disease, and heat stress in livestock. Livestock and poultry production may be affected more by increases in the number of days of extreme heat or cold, than by shifts in average temperature. Likewise, crop production may be more affected by extreme events, especially if they occur at critical developmental stages such as flowering or interfere with the timing of planting or harvest operations. Farm financial vulnerability and resilience may depend more upon the magnitude and timing of extreme events than the effects of mean growing season changes due to climate change.

Regenerative agricultural practices, such as no-till cultivation, perennial crops, cover crops, and managed grazing, maintain vegetative cover and living root systems throughout the year. They increase water infiltration, so there is less runoff, erosion, and flooding, and greater water availability during drought. These practices not only help to mitigate the problems resulting from climate change with increased resilience to extreme weather events, they also sequester large amounts of carbon and reduce greenhouse gas emissions to reduce climate change.

Healthy Soil, Food, and Markets

Healthy soil in a regenerative agricultural system, with deep root systems and high levels of microbial diversity, facilitate nutrient delivery to plants, leading to foods that contain more nutrients. Livestock grazing on landscapes with high levels of biodiversity have enhanced health. The eggs, meat, and dairy products from these animals have improved ratios of omega-3 to omega-6 fatty acids, that may reduce the incidence of heart disease, cancer, rheumatoid arthritis, and autoimmune and neurodegenerative diseases. More than ever, many consumers have been seeking locally grown and healthy products, providing producers with opportunities for improved profits and new markets that will hopefully continue into the future.

This **2022 Pennsylvania Grazing Calendar** highlights 12 farms across Pennsylvania, with diverse production methods, challenges, goals, opportunities, and natural resources. They demonstrate that there are so many different strategies for grass-based livestock production, with each system tailored to the unique situation. Special thanks to these farms that shared their information and photos. The calendar was assembled by Kelly O'Neill, Chesapeake Bay Foundation.



PHOTO BY KELLY O'NEILL

Learn from Others!

Seeing other grazing operations is a great way to gather information to start or improve your operation. You'll see their forage species, height when animals start and leave a pasture, stocking rate, livestock breeds, paddock layout, walkways, fencing, and watering system. It's always useful to learn about successes and challenges from your fellow farmers, so please connect to the many resources available.



**Pennsylvania
Grazing Lands
Coalition**

The Pennsylvania Grazing Lands Coalition provides various learning experiences, such as pasture walks, informative videos and podcasts, and an online library of grazing materials. PAGLC mentors help grazers increase profits while improving the health of livestock and land. See paglc.org.



**United States
Department of
Agriculture**

Natural Resources Conservation Service

USDA's Natural Resources Conservation Service (NRCS) provides farmers with financial and technical assistance help with grazing systems, streambank fencing, conservation tillage, animal waste storage, nutrient management, erosion control, and many other practices that may help on your farm. Contact your local office for information or see nrcs.usda.gov.

Pasa
SUSTAINABLE
AGRICULTURE

Pasa Sustainable Agriculture's Dairy Grazing Apprenticeship Program provides full-time, paid employment with training in all aspects of running a grazing dairy operation. Pasa is also working to build a regenerative organic dairy supply chain in southeast Pennsylvania, with financing, business planning, and technical assistance with organic certification. See pasafarming.org.



Capital Resource Conservation and Development (Capital RC&D) Area Council grazing advisors pull from experience raising a variety of livestock to provide one-to-one technical advice about a variety of grazing topics throughout the Chesapeake Bay watershed in Pennsylvania. They're available to help new and experienced grazers address issues such as pasture improvement, fencing, grazing planning, weed management, soil health, and forage species selection, among other grazing-related topics. See capitalrcd.org.

Jake Kristophel and Desiree Sirois
Fallen Aspen Farm, Plain Grove, Lawrence County
fallenaspenfarm.com

Founded in 2012, Fallen Aspen Farm focuses on ethically raising pastured pork, lamb, layers, and broilers. The sheep are 100% grass-fed and graze in paddocks with 250 laying hens. The sheep and layers move to a new paddock every three days with a shade shelter. The broilers are raised in mobile chicken tractors, leaving significant nutrients in the pasture. The chickens get free choice non-genetically modified grain, along with greens and all the bugs that they can catch.

Jake and Desiree provide the pigs with shelter and bedding, weekly move them to new pastures, and finish them on apples from a local cider press year-round. The pigs are fed a minimal amount of non-genetically modified grains, and also pumpkins and nuts when in season.

Last year, Fallen Aspen Farm received financial assistance through the USDA Environmental Quality Incentives Program to install a watering system in the far pastures, build access roads so they don't get stuck in mud, install high tensile fencing for the sheep, and plant native pasture grasses. They planted hundreds of fruit and nut trees, are planning two large swaths of trees for a winter shelter belt, and hope to eventually turn the entire farm into silvopasture.

Desiree and Jake combine the lard from their pastured pigs with essential oils and clay to make a variety of soaps, called "The Lard Bars." They sell their products at Fallen Aspen Farm, through door-to-door delivery, at three farmers markets in Pittsburgh, and to restaurants throughout the Greater Pittsburgh area.



Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

<p>Review weather, grazing, and production records from last year to adjust paddock size and layout, forage species, herd size, and other aspects of your management as needed. Assess improvements that may help to maintain livestock body condition, water availability in paddocks, and forage availability to meet demand throughout the year.</p> <p>Summarize your cost information and revenue to identify opportunities to improve profits for the coming year. You might investigate opportunities to tap new markets for eggs, milk, and meat, with consumer willingness to pay a premium price for healthier foods from grass-fed animals.</p>						1																																											
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16	17 ○ Martin Luther King, Jr. Day	18	19	20	21	22																																											
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30	31	<p>Meet with your nutrient management planner to update your Nutrient Management Plan and a conservation technician to discuss potential improvements. Explore technical and financial assistance options through the USDA Natural Resources Conservation Service, your County Conservation District, Capital RC&D, and Pasa Sustainable Agriculture.</p>			<p>December 2021</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td></tr> <tr><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td></tr> <tr><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td></tr> <tr><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td></tr> </table>		S	M	T	W	T	F	S				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
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New Moon ● Full Moon ○

January



PHOTOS SUBMITTED BY JENNIFER ALBRIGHT



Alfred and Jennifer Albright
Goldfinch Meadows, Jonestown, Lebanon County, goldfinchmeadows.com

Alfred and Jennifer Albright are fairly new to the world of farming. The 70-acre farm had been in Alfred's family for over 40 years, but they both had off-farm careers before they purchased it from his mother's estate in 2015. They converted it from a Thoroughbred horse breeding and racing operation to a grass-fed Angus and Simmental beef farm.

Their focus is on rotational grazing and sustainable agriculture, and they only stock as many animals as the land can comfortably sustain. Every other year, they have slowly increased the size of their herd based on what their land can support, as well as on their customer base and demand for freezer beef.

They are slowly building and improving the infrastructure of the farm to improve their ability to intensively graze their cattle. Watering systems, improved fencing, and a barnyard are among the projects completed or in process at Goldfinch Meadows.

Currently, 40 acres are leased for cropping. The goal is to eventually fence that as well and work with the leasing farmer to graze crop residuals and cover crops.

As a value-added product, and to honor the animals by using as much as possible, Jennifer also has a soap company in which she uses the tallow from their cattle to create handcrafted, artisan tallow soaps, lotions, candles, lip balms, and solid dish soaps, focusing on sustainable packaging with no plastic. Goldfinch Meadows markets its products through social media, word-of-mouth, and friends and family.

Alfred and Jennifer show that a bit of humor is needed when working together on the farm.

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13	14 Valentine's Day	15	16 ○	2022 Pasa Sustainable Agriculture Conference, Lancaster, PA. See pasafarming.org		19
20	21 Presidents' Day	22	23	24	25	26
27	28	Late winter frost seeding may be an easy and inexpensive way to improve forage quality in pastures, with seeds broadcast approximately 40-50 days before grass growth begins. The freezing and thawing of the soil surface and then spring rains will help work the seeds into the soil. Relative to other planting methods, frost seeding has a shorter period when grazing should be avoided, and has visible seed distribution if there is a light snow cover. Good soil contact is needed, so pastures should be closely grazed in the preceding fall or winter to expose the soil. Red and white clovers, birdsfoot trefoils, alfalfa, perennial ryegrass, and orchardgrass are some species that have been successful.				



PHOTO BY AUSTIN UNRUH

Tim and Frances Crowhill Sauder
Fiddle Creek Dairy, Quarryville, Lancaster County, fiddlecreekdairy.com

Fiddle Creek Dairy aims to produce nourishing food while simultaneously caring for the land and their community. Tim and Frances have been steadily nurturing the land and soil that were depleted when they moved to this farm.

By moving the herd two or three times a day to fresh grass, the cows leave manure, trample weeds to return organic material to the soil, and stimulate growth of various grasses. With the proper rest, the pasture is restored and thriving by the time the herd returns, mimicking wild herds in natural habitats.

Tim and Frances have planted almost 5,000 trees to improve the resilience of the land, stabilize the soil, protect from extreme weather, and diversify their products to include fruits and nuts. After establishing a small orchard and stream buffer of native trees and shrubs, they observed that the grasses near the trees thrived more than anywhere else. They since planted more trees, interspersed throughout the pastures to provide the cows with shade and extra forage, such as honey locust pods, mulberries, and willow, mulberry, and poplar leaves.

They use trees with small leaves that create dappled shade and space them far enough apart from each other to allow adequate sunlight to reach the forages. The trees are planted in straight rows spaced according to the largest equipment they might use for spreading manure or cutting hay.

Fiddle Creek Dairy's Jerseys are mixed with a few other breeds to have genetics that allow the cows to thrive on a diet of grass, with supplements of only liquid molasses, salt, and minerals. The cows are only milked once daily to maintain high fat and solid content in the milk. They make yogurt and cheese by only adding culture to the milk and no sugars or thickeners.

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<p>Walk your pastures to look for bare spots and the balance of grass and legume species to see if additional seeding is needed. Identify pastures that show promise for early grazing or others that may produce high-quality hay or silage if ungrazed. Resist the temptation to let animals graze before pastures reach 6-8 inches in height, when there are adequate nutrients to meet their dietary needs and the vegetation has healthy roots to continue production. Continue feeding hay as needed.</p>		1	2 ●	3	4	5																																																																																				
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New Moon ● Full Moon ○

March



PHOTOS SUBMITTED BY GLEN CAUFFMAN

Glen Cauffman and Judith Shoemaker, DVM
The Glen Cauffman Farm, Millerstown, Perry County, pureamericannaturals.com

The 190 acres of rolling hills of The Glen Cauffman Farm are home to over 300 Angora goats on 20 fenced acres with free access to spring water, shade, and clean shelters for inclement weather. Pastures are maintained with cup plant, Kura clover, birdsfoot trefoil, and other diverse species, rotationally grazed to ensure the sustained production of high-protein quality forages and minimal parasite infestation. These goats are grazing cup plant, a perennial native to Pennsylvania that provides high quality forage and endures extreme weather. A research project on the farm is evaluating the legume *Sericea Lespedeza* as a forage to control internal parasites and coccidia.

The goats graze compatibly with peacocks that provide protection from ticks and fleas, while llamas protect the goats and birds from predators. The goats also control weeds and invasive plant species such as multiflora rose, poison ivy, and Canada thistle. Their habit of always eating on the move avoids over-grazing, distributes manure, and harvests forage uniformly.

All cropland is maintained in contour strips of alternating crops in rotation. With no-till cultivation since 1984, cover crops and crop residue protect the soil from erosion and enhance water infiltration. Minimal chemical weed control is used on the pastures, and mowing at optimal height for plant growth efficiency is needed only two to three times per year.

Years of selective breeding have developed a herd with excellent mohair quality and superior immune systems, parasite resistance, and resilience. These gentle animals can be easily handled by everyone, including children, and will stay in a 30-inch high three-strand electric fence. The fleeces are shorn twice yearly to make mohair yarn for luxurious products for the fashion industry. Rather than producing for a generic commodity market, the farm thrives by creatively marketing unique, brandable products through their fiber company, Pure American Naturals.



Sunday

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Saturday

March 2022

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May 2022

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Early growing forage species such as cereal rye can be grazed 1-2 weeks earlier than perennial pasture species, allowing animals in pastures sooner. Rapid spring growth of forages easily can get ahead of animal demand. You may harvest hay or silage from pastures before they become too mature, and then allow animals to graze when the vegetation has regrown.

Creep-graze calves, kids, and lambs, allowing them access to the highest-quality pastures to meet their nutritional needs.

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Ramadan Begins

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Passover Begins

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Easter Sunday

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Earth Day

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Arbor Day

30 ●

New Moon ● Full Moon ○

April



**Amos Smucker, Dornsife, Northumberland County, and
Utopihen Farms, New Holland, Lancaster, PA, utopihenfarms.com**

Utopihen Farms is committed to sustainable farming and partners with about 30 family-owned farms in central Pennsylvania to pasture-raise hens for egg production.

Amos Smucker and his family have teamed with Utopihen Farms since 2019. Out of his 75 acres of land, 30 are wide-open, lush green pastures. His 3,000 pasture-raised, certified humane, and organic laying hens enjoy their days on approximately eight acres.

In addition, he has 70 dairy goats. Being on a rotational grazing cycle, the hens work in concert with the dairy goats to heal the nutrient and water cycles, making the grass and soil better for the animals. Because his farm is set on a mountainside, Amos incorporates trees and bushes into his pasture to further reduce run-off and erosion. The trees and shrubs increase soil health, sequester carbon, and act as shelter, shade, and a feed source for the animals. Utopihen farms is looking for ways to further decrease feed costs by planting even more fruit bearing trees and bushes specifically for the hens.

Amos' hens spend at least six hours a day in the pasture. They have plenty of time to spread their wings, scratch in the dirt, and supplement their diet with nutritious grasses and insects. All this plays a role in providing the hens with a more natural and humane life, as well as producing better tasting, healthier eggs.



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15 Mother's Day	16	17	18	19	20	21																																										
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29	30 Memorial Day	31	<p>Ensure a good post-grazing residual height of at least four inches on your forages when making pasture rotation decisions, so your roots will sustain growth throughout the season. Be flexible in rotating animals without being locked into a paddock sequence if grass height indicates a different order. Scout fields used for heavy feeding over the winter to identify emerging weed problems.</p>		<p>April 2022</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> </tbody> </table>		S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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New Moon ● Full Moon ○

May



Daniel and Lydia Allgyer
Prairie Foods
Mill Hall, Clinton County

PHOTO BY LISA BLAZURE

Daniel Allgyer and family operate Prairie Foods, a retail business selling grass-fed beef, pork, chicken, and dairy products, as well as frozen vegetables, which are all grown in the surrounding community. Products are sold at the farm store, and shipped to fill mail and phone orders. The Allgyers started farming regeneratively out of a passion to produce nutritionally dense foods from healthy soils. They are experiencing improved health both in the family and also their farm's soils.

Calves are sourced from nearby grass-fed herds at an age of 10 months. They are finished on about 200 acres of perennial pastures. The farm typically runs 200 head in the summer and 50 in the winter. Hay is fed in addition to the stockpiled grass if needed in the winter. Stock density ranges from 100,000 to 1,500,000 pounds per acre, with rest periods of 30 to 120 days. This may mean moving cattle dozens of times a day. Temporary fencing is installed quickly with step-in posts and braided wire as their favorite equipment. The wire is reeled on welding wire spools using a cordless drill.

Hogs are raised outdoors and moved weekly to ensure fresh grass and forbs. In the winter, they are provided additional hay and indoor shelter as needed. In summer, chickens for meat and eggs are moved daily in outdoor coops to ensure fresh grass and bugs. Meat birds are grown slowly to improve flavor, usually taking 10 weeks to reach six pounds. Layers are kept indoors in deep bedding in the winter. Hogs and chickens are fed non-genetically modified grain as needed to meet energy and protein needs.



PHOTO BY DANIEL ALLGYER

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Consider portable cross fencing to split pastures and increase stock density to promote more even grazing. Begin grazing native warm season grass at 18-22 inches (if available); and don't graze below 8-10 inches.

Determine options for haymaking or stockpiling on pastures with excess spring growth. Assess whether additional warm-season or cool-season annuals may be needed to supplement summer or fall grazing.

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19
Juneteenth
Father's Day

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21
First Day of Summer

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28 ●

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30

May 2022

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July 2022

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						31

New Moon ● Full Moon ○

June



PHOTO BY JULIA CHAIN

Julia Chain and Charles Stodter
Silver Lake Farm, Lewisberry, York County

The Silver Lake Farm in Lewisberry, PA sits on the base of a mountain and is a small 10-acre parcel primarily in pasture. The land has two unnamed seasonal streams and a historic stone farmhouse and barn dating to the first half of the 19th century.

The pastures are home primarily to Thoroughbred horses kept for trail riding, jumping, and foxhunting. Lush pastures are a critical aspect of their nutritional and emotional health, so rotational grazing and pasture management are key to the operation of the farm.

Julia Chain and Charles Stodter also operate a small cut flower operation that sells bouquets directly to local businesses. Flowers are grown with no-till practices from April to October.

They have added to the trees alongside their streams with help from the Keystone 10 Million Trees Partnership. Further conservation practices are in the works as the farm is currently working with the York County Conservation District and USDA Natural Resources Conservation Service to implement more best management practices related to grazing in the coming years.



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
June 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	August 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Observe how grazing behavior leads to forage consumption, weed growth, and manure distribution, and think about changes that should be made. Do your livestock spend most of their time around water, shade, and/or traveling fencelines? Planting additional trees may provide shade to improve weight gain, milk production, and conception rates of livestock.			1	2
3	4 Independence Day	5	6	7	8	9
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17	18	19	20	21	22	23
24	25	26	27	28 ●	29	30
31	Native warm season grasses are more productive during hot dry periods, while most of your cool season pastures are going dormant in the heat of the summer. Higher turn-in heights, usually 30 inches, and residual heights of 6 to 8 inches are essential to protect plants from overgrazing. Further increase paddock numbers by bringing more hay ground into the grazing rotation if possible. If drought conditions limit pasture growth, use a designated sacrifice lot to feed livestock hay and supplements. Feed hay to grow grass!					

Justin and Ashley Broadwater

Broadwater Bee Brigade, Buffalo Mills, Somerset County
beebrigade.com

After 24 years of Army service, Justin is converting a former 33-acre horse farm into an apiary and farmstead with eight Texas Longhorns pastured in six paddocks with high-quality forages. He is shifting half of these pastures into wildflowers for pollinator habitat.

As Pennsylvania loses about 40 to 60 percent of bee colonies every year, he uses and advocates for environmentally safe farming practices to help bees and other native insect pollinators, as well as support local beekeepers. Justin plants diverse pasture species, prevents overgrazing, manages pastures to increase the flowering period, and establishes pollinator habitat in areas that are hard to farm, such as along fence lines, road edges, or other small patches of land to enhance habitat. He avoids herbicide treatments to remove unwanted pasture plants, and instead removes them by digging, mowing, or dragging.

Community support is essential since neighbors' yard, garden, and farm practices impact bees in his hives and other pollinators, so he tries to help others by capturing swarms and mentoring other beekeepers.

Broadwater Bee Brigade products are marketed through word of mouth, social media, and a website, with promotional titles such as "PA Preferred," "Veteran Owned," and "Homegrown by Heroes."

Justin's goal is to have 100 hives over the winter of 2021-22, 250 hives in 2022, and 1,000 in 2025 for local pollination services, hive sales, bulk honey production, and a large variety of bee by-products. Additional ambitions are hands-on educational lessons, agritourism, and support for veterans, first responders, and others with agricultural therapy.



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																																																																											
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			Ag Progress Days, Pennsylvania Furnace, PA - See agsci.psu.edu/apd																																																																																														
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21	22	23	24	25	26	27 ●																																																																																											
28	29	30	31	<p>Brassica species planted in a forage mixture in late summer can provide significant nutrition to livestock in the fall, and are high in moisture and protein.</p>	<p>July 2022</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> <tr> <td>31</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							<p>September 2022</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> </tbody> </table>	S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
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New Moon ● Full Moon ○

August



Gray and Katie Turner

Baken Creek Farm, Landisburg, Perry County, bakencreekfarm.wixsite.com/home

Gray and Katie started farming on their 30 acres in 2018, and market products at their farm store and through subscriptions. They grow a variety of vegetables, cut flowers, and small fruits, with methods that build the health and nutrients of the soil and thus the crops. Also, honeybees provide pollination and honey.

Chickens are raised in movable coops, allowing the birds to have constant access to fresh grass and bugs. The broilers and layers are also fed a locally grown, chemical-free grain blend.

Baken Creek Farm raises 100% grass-fed Katahdin sheep. Katahdins are extremely easy keepers, make great mothers, and have strong parasite-resistant genetics. The sheep rarely need to be de-wormed, because of good pasture management with the appropriate carrying capacity. The pastures are rested for 60 or more days, allowing an abundance of forbs to proliferate, which the sheep prefer first after every paddock move.

Rather than cutting hay, they stockpile forage during the growing season that the sheep harvest in the winter, often only needing to supplement with purchased hay for two to three months. In 2021, they moved to spring lambing on pasture in May, so the nutritional needs of the animals align with the forage quality during the spring flush. They are also developing a silvopasture system to provide livestock with shade in the summer, tree fodder during droughts, as well as timber-related products for future farm revenue and ecological diversity.

Gray and Katie recommend having conversations with people who are doing things differently than the norm, and being lifelong learners with willingness to improve.



PHOTOS BY
TO CAPTURE A MOMENT PHOTOGRAPHY

Sunday							Monday							Tuesday							Wednesday							Thursday							Friday							Saturday						
<p>August 2022</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6</p> <p>7 8 9 10 11 12 13</p> <p>14 15 16 17 18 19 20</p> <p>21 22 23 24 25 26 27</p> <p>28 29 30 31</p>							<p>October 2022</p> <p>S M T W T F S</p> <p>1</p> <p>2 3 4 5 6 7 8</p> <p>9 10 11 12 13 14 15</p> <p>16 17 18 19 20 21 22</p> <p>23 24 25 26 27 28 29</p> <p>30 31</p>							<p>Pastures without adequate stands of high-quality grasses and legumes can be seeded in the fall, so seedlings may become established before freezing weather. After grazing or harvesting the existing stand to a low level, seeds may be broadcast or planted with a no-till planter. Livestock should not graze new seedlings, or they will be damaged and not survive competition with the existing sod.</p>														1	2	3																		
4							5 Labor Day							6							7							8							9							10 ○						
11							12							13							14							15							16							17						
18							19							20							21							22 First Day of Fall							23							24						
25 ●							26 Rosh Hashana Begins							27							28							29							30							<p>Paddocks where you plan to stockpile forages for later in the fall or winter should have livestock excluded.</p>						

Matt and Amie Bomgardner

Blue Mountain View Farm, Annville, Lebanon County

Blue Mountain View Farm is an organic, third-generation dairy owned by Matt and Amie Bomgardner. Of their 150 tillable acres, 115 are grazed by their herd of 100 dairy cows. An additional 20 acres of mature woodland is grazed by the cows during the summer months. Pasturing the cows has improved herd health including reproduction, foot and leg health, and milk quality which in turn has reduced the cull rate.

Matt feeds a total mixed ration (TMR) consisting of forages and purchased grains just before milking and during the heat of the day to maintain production. He incorporates grazing to reduce costs of purchased feed, mechanical harvesting, manure hauling, and veterinary visits. The cows are given a new section of pasture twice a day with a back fence to allow grazed forages to start regrowth. Each section of pasture has a 30-45 day rotation based on regrowth and weather conditions.



PHOTO BY KELLY O'NEILL

Blue Mountain View Farm's pastures have been consistently improving with greater plant diversity and increased soil organic matter. Matt interseeds a diverse mix of grasses, legumes, and forbs into pastures as needed. He has learned that interseeding pastures as often as every two years helps keep the stands at peak production and extends the longevity of the stand. However, extremely poor or damaged stands may be renovated with a summer annual mix followed by a fall annual mix that these cows are grazing. The next year a new diverse perennial mix is planted in early spring.



PHOTO SUBMITTED BY MATT BOMGARDNER

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

<p>Integrating cover crops, especially multi-species mixes, into row crops will improve soil health while also providing additional forage. Clovers, rye, triticale, and ryegrass will provide limited forage in the fall and more in the spring. Oats, radishes, and turnips will provide fall forage but not survive the winter.</p> <p>Be cautious when grazing sorghum species (forage sorghums, sorghum sudangrass, sudangrass, and even patches of Johnsongrass) that have been drought-stricken, frosted, or otherwise damaged. This can cause high levels of prussic acid and is dangerous to grazing livestock, so wait a few weeks after growth resumes before grazing. Prussic acid is volatile and escapes during the drying or ensiling processes, so hay and silage are rarely hazardous.</p>						1																																										
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9	10 Columbus Day Indigenous Peoples' Day	11	12 National Farmer's Day	13	14	15																																										
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30	31 Halloween	<p>Continue to closely monitor grazing. Do not graze cool-season pastures below 4 inches or native warm season grass pastures below 10 inches.</p> <p>Inventory hay stocks and pasture. Be prepared to adjust animal and forage balance by culling animals or purchasing hay.</p>			<p>September 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td></tr> </table>		S	M	T	W	T	F	S					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
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New Moon ● Full Moon ○

October



PHOTO BY MICHAEL KOVACH

Michael, Karen, and Amelia Kovach

The Walnut Hill Farm, Sharpsville, Mercer County, thewalnuthillfarm.com

The Walnut Hill Farm, a pasture-based, multiple-species, regenerative farm on 177 acres, raises grass-fed and finished Angus beef and lamb, silvopastured pigs, and pastured poultry.

Cattle are finished in 24-27 months, without antibiotics, growth hormones, or genetically modified organisms (GMOs). Lambs are born around March and June and are on pasture 100% of the time. Heritage and special breed pigs are raised in a woodlot, loaded with apple, pine, oak, hickory, walnut, pignut, and hazelnut trees. They are also supplemented with non-GMO mash.

Turkeys are an excellent pasture-building species, and run under fruit trees to take advantage of both the fallen fruit and the insects attracted to it. They are raised for the Thanksgiving and Christmas markets. Laying hens move frequently on pasture most of the year, except for in the coldest winter weather. Broilers are raised on pasture until late fall. The broilers and layers are also fed non-GMO mash in addition to whatever they can forage. All of the birds are valuable pasture-cleaners, getting rid of parasites.

The Walnut Hill Farm practices intensively managed, adaptive grazing, with close monitoring of forage growth. They improve pastures by spreading composted manure and bedding, and interseeding combinations of annuals, perennials, and legumes. It has had no herbicides or synthetic fertilizers for more than 10 years.

The family processes all species at USDA facilities, and sells about 95% of its product directly to consumers on the farm twice a week, developing a strong sense of community with customers who learn about The Walnut Hill Farm's work in harmony with natural systems.

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<p>October 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						<p>December 2022</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr> </table>	S	M	T	W	T	F	S					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5
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Daylight Saving Time ends		Election Day				Veterans Day																																																																																											
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					Thanksgiving Day																																																																																												
27	28	29	30	<p>Overgrazing throughout the winter damages root systems and leads to soil compaction, so forage growth during the remaining year suffers. You may reduce this problem by concentrating your winter feeding to a relatively small dry area that is easily accessible for feeding, but far from any streams, wells, sinkholes, or environmentally sensitive areas. You might also choose an area where the soil is low in nutrients, because it will receive a large amount of manure. Unroll large bales or scatter smaller bales across this area to improve manure distribution and reduce soil compaction. This also allows more animals to feed at one time, as the dominant animals are less likely to intimidate others.</p>																																																																																													

New Moon ● Full Moon ○

November



Russ Wilson
Wilson Land & Cattle Co.
Tionesta, Forest County
russwilson.net



PHOTOS BY RUSS WILSON

Wilson Land & Cattle Co., founded in 2008, is an adaptive grazing operation with the soil prioritized and with a variety of livestock adapted to the environment using very few inputs. They can be grazing all year permitting forage availability. The cattle are mostly smaller framed registered black Angus; the sheep are a mixed breed of hair sheep with parasite resistance that thrive with just grass; and the hogs are rotationally grazed and sold as freezer pork. Mules and donkeys are used for riding in the national forests.

The farm is split into more than 40 paddocks, with temporary fencing used to split into smaller paddocks. Throughout the year, the farm will be divided into more than 1,000 paddocks, allowing for maximum rest for the soils. The hands-on management maximizes grass usage and increases the days on pasture each year; livestock grazed 320 days in 2020.

Wilson Land & Cattle Co.'s marketing depends on its reputation with little advertising. Its top sellable asset is breeding livestock that is very productive and thrives on pasture alone, and has been distributed to 15 states. The grazing management and high quality livestock have given Russ the opportunity to do farm consulting, public speaking, YouTube videos, Facebook posts, and farm visits for advising.

Russ continues to strive towards more conservative farming methods while showing that the small, family farm can survive. He advised, "The system needs to be looked at as a whole living system and the partnerships that make the whole living system. If your living system is healthy, your livestock will be healthy as well."

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November 2022 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	January 2023 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Keep cows off very wet pastures to avoid pugging and soil compaction. If precipitation and ultra-muddy pastures are expected, consider unrolling multiple days-worth of hay while the ground is dry. You may use temporary electric wire to limit access to unrolled hay and move the fence each day to "strip graze" a new section of hay.		1	2	3
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11	12	13	14	15	16	17
18	19	20	21	22	23 ●	24
Hanukkah Begins			First Day of Winter			
25	26	27	28	29	30	31
Christmas	Kwanzaa Begins					

New Moon ● Full Moon ○

December

MOUNTAINS-TO-BAY



GRAZING ALLIANCE

The Mountains-to-Bay Grazing Alliance (m2balliance.org) created this calendar to encourage wider adoption of grazing and related conservation practices to boost farm economies, enhance soil health, and improve water quality. Regional partners work together to increase pasture-based livestock production in Pennsylvania, Virginia, and Maryland.



CHESAPEAKE BAY FOUNDATION

Saving a National Treasure

Chesapeake Bay Foundation (CBF) is dedicated to restoring Pennsylvania waterways and the Chesapeake Bay, especially through work with agricultural producers to improve profitability and keep soil and nutrients on the land, rather than in waterways. See cbf.org/issues/agriculture/.



The Pennsylvania Grazing Lands Coalition (paglc.org) is a producer-led association that strives to increase understanding of profitable conservation practices on grazing lands, by providing grants for research, conferences and pasture walks, producing informative videos and podcasts, and maintaining an online library of grazing materials. PAGLC mentors help grazers increase profits while improving the health of livestock and land.

The Mountains-to-Bay Grazing Alliance is funded by the U.S. Environmental Protection Agency, Natural Resources Conservation Service, and PA Department of Environmental Protection through the National Fish and Wildlife Foundation's Innovative Nutrient and Sediment Reduction program.



NFWF



Chesapeake Bay Stewardship Fund

Chesapeake Bay Program
Science. Restoration. Partnerships.

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