

PA Bowen Farmstead
Brandywine, MD



Farm Conditions	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	P A Bowen Farmstead is situated on 95 acres of mixed woodland and pastures; with a total of about 35 acres open pasture and 10 acres shaded woodland pasture (with more woodlands pasture added each year.) Pastures are not irrigated. Currently the pastures support about 15 milking cows, 5 bred heifers, 2 bulls and up to 10 calves. Cows are managed by a system of managed intensive grazing, and are moved once or twice per day. During winter and periods of drought, cows are kept in an open-sided Joel Salatin-style loafing shed and fed hay and small amounts of our grain mix.	Move cows to new pastures daily or twice daily when pastures are green; keep in loafing shed well away from milking and cheese-making facility when pastures cannot support grazing.	✓		
2	P A Bowen Farmstead owns 30-35 cows, including calves, heifers, bull calves, bulls and milk cows. All the milk is used for the making of raw cheese. We are not allowed to sell raw milk at this time, or engage in a cow share or herd share program.	Assure that all milk goes into cheesemaking and none is sold to the public.	✓		
3	Water well and pump is more than 500 feet deep and is not subject to contamination. The Maryland Department of Public Health tests the water yearly for coliform, which has never been found in the water. We have also tested and found no heavy metals or contaminants.	Assure that water is pure and not contaminated. Annual testing.			✓
4	Cows are rotated using electric fences. Grazing paddocks are almost infinitely adaptable. Pasture conditions are evaluated every day, and cows are moved to a new pasture frequently in order to ensure optimal nutrition for the cattle, optimal regrowth for the grass, and avoid the buildup of manure.	Move cows to new pastures regularly to assure nutrition and cleanliness.	✓		
5	Chickens are also raised on the farm and eggs and meat birds are sold as additional farm products. Chickens are grazed on pasture behind the cows, and cows do not enter the chicken pasture for 3 weeks after chickens have moved. Meat birds are enclosed in moveable "chicken tractors." Laying hens reside in moveable "egg-mobiles," but have free range during the day. Chickens do not roost in and are not allowed into the milking and milk handling areas.	Assure that chickens or other birds do not enter and roost in the milking room areas.	✓		
6	Pigs are raised on the farm for pork. Pigs never share space with the cows, and are housed and pastured in woodland areas. Pigs are fenced off of creeks and streams.	Assure that pigs do not enter cattle grazing areas or contaminate irrigation waters.	✓		
7	Grass-fed beef is purchased from a farmer engaged in chemical-free, pasture-based agriculture; When purchased, the beef cows are taken immediately to slaughter, to then be sold in the on-farm store	Assure that beef cattle are raised according to our standards.	✓		

8	There are no known invasive plants or pests that are located in this farm environment. Wild berries, harmless native shrubs, and bio-diverse pasture grasses grow naturally. Deer are seldom seen on the farm.	Check annually to assure that no harmful pests or weeds invade the cow's environment and that all perimeter fences are secure.	✓		
9	Summer high temperatures can reach 100 degrees, but usually are in the 80s. Trees provide shade during hot days, and cows are grazed in the cool woods when weather is hottest. In winter, cows are kept in the loafing shed.	Assure that shelter conditions and bedding systems are managed properly.	✓		
Animal Nutrition and Conditions	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	We have a closed herd. The original cows in the herd were tested for TB and brucellosis, although this is not required by the Maryland Department of Health. Parasites are not a problem in our climate. The vet is called in only occasionally, on an as-needed basis. Our cows are not vaccinated.	Do not bring cows from outside into the herd, and monitor condition and manure frequently to assure the cows are in good health.	✓		
2	Cows have access to clean, potable well water for drinking at all times. Waterers are kept in clean condition.	Assure water feeders are clean for animal consumption uses.	✓		
	When the cows freshen, each one is tested for Staph A using rapid testing films. We have found that some cows test initially for small amounts of staph (the test does not determine whether this is staph A or other types), but after a few days, this disappears. If we find a cow that tests continually for staph, we will treat with vitamin C. If this does not work, we will cull the cow.	Test all cows when they freshen	✓		
3	All animals that present with infections, poor body condition, mastitis, lameness or other significant health challenges are separated from the milk string and milked last and milked separately until such time as the determination can be made that the animal is healthy and that the milk is not at risk. Milk from each quarter is spot tested using the California mastitis test. If one quarter is infected, that milk is not brought into the cheese make room, but fed to the calves.	All milk that is taken from cows that are separated for health risk cause will not enter the Milk Filling room and will be fed to animals or discarded.	✓		
4	Cows are fed pasture grass on a rotational grazing basis. Cows are moved to a new paddock daily when pastures are green. The size of the paddock is indicated by the climate and season. Paddocks are managed with the use of a moveable electric fence and permanent, perimeter fence. Cows are also given dry baled forage every day to slow the rumen and firm up loose stools. Two-three pounds of our "porridge" mix per cow is given daily in the milking parlor. The mix includes freshly ground barley, sorghum and field peas; coconut pulp; vinegar; molasses; clay; and vitamin and mineral mixes.	Assure that paddocks are managed and cows are moved as planned.	✓		

5	Durin gtimes of very inclement weather (such as heavy snow), cows are fed dried forage in our loafing shed.	Assure that cows stay clean, shelter facilities are managed and waste is composted separately from cows.	✓		
6	Calves stay with their mothers the first three days. They are then put together in an open paddock area where they have fresh grass. They are given milk in a bottle or from a nurse cow for the first 4-5 months of life.	Observe calves to ensure they are healthy and thriving	✓		
7	Cows are individually fed the porridge mix in the milking parlor. Mineral salts are offered free choice at all times. Porridge is also given during winter months.	Assure that minerals and salt are continually available and appropriate to the needs of cows in this ecosystem.	✓		
Milking Conditions	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	All milking takes place inside of an enclosed building. Floors are concrete. Wash down water drains into an underground tank outside. Fresh water hose is available in the milk parlor for washing floors etc. The room is well lighted and may be enclosed from outside weather conditions, or opened to allow airflow. All animal waste is washed down and area is kept waste free. Waste water is pumped out every 2-3 days and sprayed on the fields.	Keep milk room conditions clean, dry and organized.	✓		
2	All milking personnel are especially trained and oriented with regard to the expectations of cleanliness and procedures for milking and other tasks. Udders are wiped clean with towels. Teats are then dipped with iodine solution; teats are stripped and then dried with a new clean towel to assure cleanliness.	Assure that only appropriately trained and experienced milking teams milk the cows and perform duties as directed.	✓		
3	All vacuum pressures are adjusted to assure that the vacuum is at the minimum needed for effective milking of the cows. If vacuum pressures are too high, injury to cows teats may occur.	Assure that vacuum gauge reads negative 11.5 to 12 inches vacuum pressure during milking.	✓		
4	All equipment is cleaned according to our SSOPs. Milking machines are cleaned with detergent and then an acid rinse. Milking cans are cleaned with scrub powder and thoroughly rinsed.	Assure that milking equipment is clean and well maintained.		✓	

Bottling Conditions	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	The milk is milked into a stainless steel cans. (Milk from infected quarters is milked separately and fed to the calves). The milk cans are rolled on a cart to the milk transfer room where the milk is transferred via stainless steel pipe to the milk tank in the cheese make room.	Assure milk moves from cow to vat without contamination.	✓		
2	The Milk Room is a clean and dry room with smooth cleanable floors and walls, and a stainless steel commercial sink. It is well lighted and well ventilated with clean fresh air.	Assure that the Milk Room remains clean at all times.	✓		
3	Farm personnel wash their hands when entering the milk transfer room. Workers who have been in the milking parlor must either put on coveralls or change to clean clothes before entering milk transfer room. All workers entering the milk transfer room must wear special shoes, hairnets and smocks or coveralls.	Assure workers follow these sanitary procedures.	✓		
4	Milk cans and the milking machines are cleaned according to the SSOPS, with monthly maintenance procedures.	Assure that cans and milkers are cleaned according to the SSOPS.		✓	
5	Cheese is produced according to the SSOPs. After every cheesemaking, equipment, drains and floors are cleaned according to the SSOPs. Once a month, the entire cheese facility gets a thorough cleaning, including walls, pipes, etc.	Assure that cheese is made according to the SSOPs, and that cleaning follows the SSOP protocols.			
6	All milkers who are ill, or have a cough, refrain from working and handling cows, milk or other raw milk related tasks.	Assure the health of all employees that handle milk.	✓		

Cheese Cutting, Packaging, Storage and Sales	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	Aged cheese is cut in the packaging room, wrapped in plastic wrap, appropriately labeled and kept at less than 39 degrees F until the point of sale. Cheese is sold in the on-farm store, through retail establishments or at farmers markets.	Assure that product is cut in a clean environment and kept properly cold.		✓	
2	A RAWMI donation box is located at the retail area. A note on the donation box says the following: P A Bowen Farmstead is LISTED by RAWMI and is dedicated to the highest of standards for raw milk safety and purity. Your donation helps protect your health and protect access to safe clean raw milk products for you the consumer, this dedicated farmer and all people.	Assure that these tax deductible donations are collected and sent to RAWMI every month.	✓		
Testing Protocol and Results	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	Every batch of milk used to make cheese is tested for coliforms using the 3M petri films. Results will be reported to RAWMI	Assure testing is completed and data is available and compliant with RAWMI Common Standards and for review.			✓
2	If bacteria results fall above the RAWMI Common Standards, the farmer is invited to contact RAWMI or another RAWMI LISTED member to consult and determine the likely cause and retest until a conforming test result is achieved.	Assure compliance with Common Standards.			✓
3	Swab tests for listeria in the cheese making areas are sent to a lab every quarter. We have never found listeria in our facility	Assure that testing is done.			✓

4	Cheese is tested for pathogens once a yer	Assure that testing is done.			✓
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Member Feedback and Recall Plan	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCP
1	Members are encouraged to submit a note to the farmer in a "drop box" at the point of pickup. Notes are invited for either "complaints or compliments". Encourage customers to provide feedback about any illnesses that they may have suffered as a result of raw milk cheese consumption.	The RAWMI LISTED farmer must keep a file and record of all complaints. This information is used to track any potential emerging issues.	✓		