

Lucky Star Farm Risk Analysis and Management Plan lowa City, Iowa

GMP - General Management Plan SSOP - Standard Sanitary Operating Procedures CCP - Critical Control Point

Farm Conditions	Reference	Narrative of Conditions	Risk Reduction	GMP	SSOP	ССР
F1	Green Pastures	Our does have open access to a one acre pasture. The pasture is green April - October, no irrigation required. They are also given regular access to woody forage around our pond during the growing season.	Ensure that pastures are kept green (with irrigation if necessary) and that livestock have adequate space. Ideally, soil fertility testing for macro- and micro-elements should be performed every 3 years to detect deficiencies or overaccumulation of nutrients in the soil that could have an impact on pasture quality and/or herd health.	~		
F2	Clean, Tested Water	Our well water is tested yearly and I do regular coliform tests with on farm lab	Ensure that water is pure and not contaminated. Annual testing.			$\checkmark$
F3	Rotational Grazing	Our small herd has ample pasture and are also given regular access to woody forage around our pond during the growing season.	Move cows/does to new pastures every day to ensure nutrition and cleanliness.	<b>~</b>		
F4	Clean and Dry Conditions	Manure scooped frequently in warm weather + deep litter in cold months Deep clean of shelter each spring	Well drained paddock, manure cleaned up daily. Ensure that shelter conditions and packs are managed properly year-round.		<b>~</b>	
F5	Poultry	Poultry and goats do not mix	Prevent cross-contamination by ensuring that chickens or other birds do not enter and roost in the milking room areas. Consider implementing time separation between cows/does entering pasture after chickens have been removed from area.		>	
F6	Pigs and Other Livestock	There is one guardian llama housed with the goat herd.	Prevent cross-contamination by ensuring that pigs are not in the same pastures and other areas with cows/does.	$\checkmark$		

F7	Pasture Management	I do regular pasture checks and mow down weeds that are not palatable before they go to seed. The perimeter fence is a solid four foot no climb with secure latches.	Check annually to ensure that no harmful pests or weeds invade the herd's environment and that all perimeter fences are secure.	<b>~</b>	
F8	Biosecurity	Visitors that come to the farm do not enter barns with shoes they wear at their own farms.	Ensure that visitors and farm helpers are educated about risks of cross contamination.	>	

Animal Nutrition and Conditions	Reference	Narrative of Conditions	Risk Reduction	GMP	SSOP	CCF
A1	Herd Health	My goat herd is semi closed. I may bring in a doe and or purchse a buckling from another clean and tested, good quality herd to improve milking genetics. Any new animal is quarenteened and tested for Johnnes, CL & CAE prior to purchase and come from a TB and brucellosis free state. Negative test results from the herd are available upon request.	If possible, maintain a closed herd. Ensure that only cows/does with good body condition, from a known high quality herd, negative TB tests, negative bangs test, and no infections or other health issues are purchased and used for human consumption raw milk.	>		
A2	Veterinary Program	I have a close working relationship with my veterinarian and we discuss all protocols.	Ensure that a proper preventative veterinary program is followed.	$\checkmark$		
А3	Mastitis Control	I use an iodine based pre-dip and post milking spray to control mastitis. I strip each udder into a strip cup prior to milking and examine for off looking milk. I keep the bedding clean and feed the goats hay at milking time to keep them up and off the ground. I have a California mastitis test to use if a goat is new to the milking group, recently weaned a kid, or has an off looking sample in the strip cup.	Ensure that animals are being closely monitored for signs of mastitis. This may include visual inspection of the udders and milk as well as SCC testing. Milk from mastitic animals must not enter the milk bottling room, and can be either fed to animals or discarded.		~	
Α4	New Livestock	Any new animal is quarenteened and tested for Johnnes, CL & CAE prior to purchase and come from a TB and brucellosis free state. Negative test results from the herd are available upon request.	Ensure that a proper biosecurity protocol is followed when introducing new livestock, such as quarantine, etc.	$\checkmark$		
Α5	Water Feeders	Goats have an automatic waterer in the warm weather and heated bucket in the winter. It is cleared of any debris daily and emptied and scrubbed weekly.	Ensure water feeders are clean for animal consumption use.		$\checkmark$	

A6	Milk from At-Risk Animals	Any goat deemed an "at-risk" animal will be milked at the end of the line and milk discarded.	Ensure that all milk from animals that are separated for health risks will not enter the Milk Bottling room and will be fed to animals or discarded.		$\checkmark$	
A7	Milk from Fresh Cows/Does	Fresh does are not milked for human consumption until at least two weeks after kidding. Before their milk enters the milk can for raw milk consumption, they must pass a mastitis test.	Milk from fresh cows/does poses greater pathogen risks. Ensure that this milk is separated and does not enter the Milk Bottling room until a specific time period has elapsed or testing has been accomplished.		~	
A8	Calf Management	Kids are dam raised at Lucky Star Farm. At two weeks of age, they are separated into their own pen adjacent to the dams overnight. Does are milked first thing in the morning then the kids are let out with the herd to nurse for the day.	Allowing calves/kids to be with their mothers poses greater pathogen risks. Ensure there is a program in place for either separating calves/kids from mothers or otherwise managing the increased risks.		~	
A9	Nutrition	Pregnant and lactating does are fed alfalfa hay. Milking does are fed a goat ration mixed with beet pulp, black oil sunflower seed, and alfalfa pellets. All goats have access to pasture and frequent walks in the brush.	Ensure that livestock is fed a nutritionally appropriate diet to maintain health and body condition.	$\checkmark$		
A10	Supplements	The goats have access to free-choice mineral formulated for them. They also have free choice baking soda.	Ensure that minerals and salt are continually available and appropriate to the needs of herd in this ecosystem.	$\checkmark$		
A11	Feed Management	Hay is covered and grain is kept in a metal rodent-free can. We also have barn cats that help with pest control.	Ensure that feed is dry and protected from moisture or pests.	<		
A12	Animal Cleanliness	In warm weather, barns are scooped regulary and manure carried away. In cold weather, straw bedding and waste hay are layered until it can be cleaned with a skid loader in the spring.	Ensure that cows/does stay clean year-round, shelter facilities are managed and waste is composted separately from cows/does.	~		

Milking Conditions	Reference	Narrative of Conditions	Risk Reduction	GMP	SSOP	ССР
М1	Milking Parlor Cleanliness	The milking parlor is swept & dusted daily. Any surfaces used during milking are disinfected. The milk stand is washed and disintected monthly.	Keep milk parlor conditions clean, dry and organized.			

M2	Bathroom	Currently the bathroom is in our home. This winter, we will construct one in an outbuilding for 2024 that will be close to the milking room and adjacent to the bottling room.	Ensure that there is a bathroom which can be easily accessed from the milking parlor and bottling room.	$\checkmark$	
M3	Manure Management	Goats do not usually defacate during milking. If it occurs, it is easy to sweep away.	Ensure there is a plan in place for managing manure in the milking parlor.		~
M4	Water Management	There is no drain or water in the milking room. It is a sloping dirt floor.	Ensure there is no standing water in the milking parlor. Ideally, the floor should drain to outside or to a sump area.	$\checkmark$	
M5	Training	All substitute milkers are trained by me. All milkers must follow SSOPs to maintain expectations and procedures for proper milking and milk handling. RAMP and SSOP are accessible in a binder in the milkhouse. They can also refer to You Tube videos for all procedures.	Ensure that only appropriately trained and experienced milking teams perform the milking duties.	$\checkmark$	
M6	Udder Prep	The teats are washed with soapy water and a cotton cloth followed by an iodine- based teat dip. Each teat is sanitized for 30 seconds then dried with a single use paper towel. Both teats are stripped prior to milking and sprayed with Fight Bac post milking to close the orifice. Towels are sanitized weekly in hot water and bleach.	Ensure that udders are cleaned, dried, sanitized for at least 30 seconds, and stripped prior to milk collection. Ensure that post- dip is applied after milking. Iodine based pre- and post-dips are		~
Μ7	Vacuum Pressure	The vacuum guage has an arrow for proper pressure for goats.	High vacuum pressures are associated with increased mastitis. Ensure that vacuum gauge reads negative 11.5 to 12 inches vacuum pressure during milking.	~	
M8	Milk Quality	Bulk milk is tested for SCC regularly and specific does at any point they have an abnormal strip.	Ensure that all milk is evaluated for quality and SCC test is performed on regular basis.		~
M9	Inflation Liners	Liners are replaced as needed.	Cracks in inflation liners can harbor bacteria and biofilms. Ensure that milk claw inflations liners are replaced regularly, depending on the manufacturer's suggested cycle life and number of accumulated cycles.		~

M10	Clean Milking Equipment	The bottles, liners, strip cup, milk can & strainer are washed daily. First with a tepid rinse and then with hot soapy water. Brushes are reserved for cleaning milking equipment. Air lines and other parts that do not come in contact with milk but are washed monthly or more if needed.	Ensure that milking equipment is clean and well maintained. Cleaning should begin with cool/tepid water rinse, to prevent formation of milk stone. Cleaning protocols should include both alkaline and acid cleaners. Typically, cleaning should start with cool water rinse, followed by hot alkaline cleaner, followed by hot acid sanitizer.	<	
M11	Clean-In-Place Equipment (if applicable)	NA	Temperature at exit of Clean-In- Place system should be at least 140 degrees F (60 C). Clean-in- Place protocols should include regularly (1-2x/month) using alternate acid and alkali cleaners to prevent cleaner-resistant bacteria colonies.		

Bottling Conditions	Reference	Narrative of Conditions	<b>Risk Reduction</b>	GMP	SSOP	ССР
B1	Clean Bottles/Jars and Lids	Jars & plastic lids are rinsed then washed & sanitized in the dishwasher. They are kept in a designated cupboard upside down until use.	Ensure that glass bottles and lids are clean and sanitary prior to filling with milk. Non-metal lids are preferred since rust from metal lids can encourage pathogen growth. Ensure that plastic bottles and lids are kept clean and uncontaminated.		<	
B2	Chilling	Milk begins chilling in the milking room. After each doe is milked, her portion is poured into a lidded milk can sitting inside an iced pot. After each new addition to the milk can, I aggitate the can to help mix and speed up chilling. By the time the milk goes inside roughly 30 minutes later, it is chilled below 60. After straining into quart jars, they are placed in an ice and water bath up to the milk line. The temps fall below 40 in less than one hour.	Ensure that chilling is completed in one hour to less than 40 degrees F (4.4 degrees C).		~	
В3	Prevent Jar Contamination	The chilling pot is filled to the milk line (below lid level) with ice and water.	Ensure that no chilled ice water ever rises above the level of the filled milk jar lid line.		<b>~</b>	
В4	Clean Milk Handling	I wash hands before milking, use hand sanitizer between does, and wash hands again before bottling.	Ensure cleanliness of personnel prior to handling milk and filling or capping jars.		$\checkmark$	

В5	Bulk Tank Sanitation	NA Only bookthy workers bondle mills	Ensure that the bulk tank is emptied and sanitized regularly. This should include complete disassembly and cleaning of valves.		
В6	Health of Personnel		employees that handle milk.	$\checkmark$	
В7	Bottling Room Management	The bottling of milk currently takes place in our home kitchen. Counters are disinfected before bottling. There is a sink adjacent to the area. We are in the process of building a milk handling/bottling room that will incorporate these elements. Opening spring 2024.	Ideally, the floor in the bottling area should have a slope and drain, the air should be filtered and under slight positive pressure to keep out flies, there should be plenty of natural light, the walls should be smooth and washable, and there should be a sink/washing area.	~	
B8	No Contamination in Milk Area	Milk is handled in our home kitchen. The sink is sanitized thoroughly on a regular basis, especially after handling eggs. (These two processes will be handled separately in new processing kitchen)	Ensure that area where milk is handled is free from contamination.	$\checkmark$	
В9	Clean Milk Area	Milk is handled in our home kitchen and is cleaned frequently.	Ensure that the place are where milk is handled is regularly cleaned.	$\checkmark$	

Retail Area and Storage	Reference	Narrative of Conditions	Risk Reduction	GMP	SSOP	ССР
R1	Milk Temperature in Storage	There is a designated refridgerator for storing milk. The thermometer inside is monitored often and is kept below 40 degrees. Deliveries off the farm are transported in ice packed coolers.	Ensure that product is kept cold.	~		
R2	Jar Labeling	Jars are dated & labeled and picked up or delivered in a timely manner.	Ensure that jars are properly labeled and dated, and picked up within three days	$\checkmark$		
R3	Warning Statement	A warning statement is located at the point of pick up. Statement says: "Raw (unpasturized) milk and raw milk dairy products may contain dis- ease-causing micro-organisms. Persons at highest risk of disease from these organisms include newborns and infants; the elderly; pregnant women; those taking corticosteroids, antibiotics or antacids; and those having chronic illnesses or other conditions that weaken their immunity." This warning may be modified by the farmer to meet local regulatory requirements ( if any ).	Ensure that required warning is posted at point of pick up.	~		

R4	RAWMI Donations	Customers will be made aware of donation collections in regular newsletters and on our website. Any donations to RAWMI will be mailed monthly.	Ensure that these tax deductible donations are collected and sent to RAWMI every month.	$\checkmark$		
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Testing Protocol and Results	Reference	Narrative of Conditions	Risk Reduction	GMP	SSOP	ССР
T1	SPC and ColiformTesting	Milk is tested weekly for coliforms and SPC in our on-farm laboratory. Results of tests are sent to RAWMI and displayed on the RAWMI LISTED webpage and made available upon request for review by customers.	Ensure that coliform and SPC testing is completed at least monthly. Ensure that this data is available and compliant with RAWMI Common Standards and for review.	~		
T2	Compliance with Standards	If bacteria results rise 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.	Ensure compliance with Common Standards.	$\checkmark$		
тз	Pathogen Testing	We do not conduct pathogen testing.	If desired, test regularly for 4 pathogens: campylobacter, salmonella, listeria mono, E coli 0151H7	<b>~</b>		

Customer Complaint and Compliments	Reference	Narrative of Conditions	Risk Reduction	GMP	SSOP	ССР
C1	Customer Communications	I maintain weekly email communication with customers and encourage and log all feedback.	The RAWMI LISTED farmer must keep a file and record of all complaints. This information is used by the farmer to track any potential emerging illness outbreaks or issues.	~		