



Retail Raw Milk Producer Guidelines

WSDA Recommended Production Guidelines for Producer and Consumer Safety

Since at least 1949, Washington State has allowed legal retail raw milk sales under RCW 15.36. There have been a number of licensed dairy operations both, cow and goat that have bottled raw milk for human consumption over the years. Recently, a renewed interest in raw milk consumption has led new farm operations and other licensed milk producer/processors to pursue this as a business option and obtain the necessary WSDA licenses.

Due to the potential health hazards associated with raw milk and raw milk product consumption, safe, clean and legal production is a must. This is particularly important with respect to children, the elderly or other immunocompromised individuals who may have adverse health effects due to pathogenic microorganisms found in raw milk such as *Campylobacter jejuni*, *Salmonella*, *Listeria monocytogenes*, and *E. coli* 0157:H7. WSDA's interest is in the protection of the consumers and the producers in our state by enforcing the rules and regulations designed for safe food production.

"Retail Raw Milk" is raw milk legally produced for human consumption within Washington State. If interested in selling raw milk for animal feed, a different license is required and you should contact WSDA for additional information.

1Q: What type of licenses must I have in order to produce retail raw milk?

1A: To produce retail raw milk you must obtain both a Milk Producer License and a Milk Processing Plant License. Retail raw milk bottling must occur at the site of milk production.

- Milk Producer licenses do not require a fee. You must submit a completed application form, water testing results, animal herd health records, and a farm diagram. See our website <http://agr.wa.gov/foodanimal/dairy>, or request a milk producers licensing application packet from our office for more information.
- Milk Processors licenses have a licensing fee of \$55 and are renewed annually. Application packets for milk processors include an application form, water testing sample results, floor diagrams, labeling information, animal herd health documentation, and processing information.



2Q: How do you define a sale of milk?

2A: By definition in RCW 15.36.012, sale means “selling, offering for sale, holding for sale, preparing for sale, distributing, dispensing, delivering, supplying, trading, bartering, offering as a gift as an inducement for sale of, and advertising for sale in any media.” This means that even if you give milk away, barter, or trade milk for other items, you must meet all of the state licensing requirements.

3Q: What is a “Cow Share” and is it legal?

3A: Some farmers use cow shares or farm share agreements as a marketing approach to sell their cows’ milk. The consumer purchases a “share” of a cow (or goat or sheep) and in return receives a portion of the milk produced. The agency considers this a sale.

Legal cow shares can exist in the State of Washington as long as the producer obtains proper licensing with the Washington State Department of Agriculture (milk producer and milk processing plant license). Producers may not use a cow share agreement to avoid meeting state requirements.

4Q: What should I know about sanitation?

4A: Sanitation requirements are addressed in the Good Manufacturing Practices and the Pasteurized Milk Ordinance. You may obtain a full copy of these by contacting the office for an application packet. Some sanitation considerations include:

- Properly clean the product-contact surfaces of all containers, equipment, and utensils used in the handling or storage of milk after each use. Milk cannot remain clean and free of contamination if permitted to come into contact with unclean containers, utensils or equipment.
- Sanitize all product-contact surfaces before each use. Cleaning alone does not insure the removal or destruction of all potentially present disease organisms.
- If reusing returnable service containers, properly cleaning and sanitation is especially important.

5Q: Are there any restrictions on the type of equipment I use?

5A: Use only equipment made of food grade material that is easily cleanable and has smooth, impervious surfaces. Milk containers and other utensils without flush joints and seams, without smooth, easily cleaned, and accessible surfaces, and those not made of durable, non-corrodible material, can harbor accumulations that support undesirable bacterial growth. Single-service articles, not manufactured and/or handled in a sanitary manner may contaminate the milk or milk contact surfaces.

- ALWAYS check with your Food Safety Officer before purchasing new equipment. Different countries and even different states vary in standards and what works somewhere else may not here.



6Q: What other processes can I incorporate to help me produce a safe product?

6A: While there is no way to guarantee the safety of raw milk, try to identify steps that will assist you to produce it as safely as possible.

Some of the most important points:

- Quick cooling
- Thorough cleaning
- Good herd health maintenance
- Good hygiene control for employees
- Cross-contamination elimination

Talk to your Food Safety Officer during licensing about developing a Hazard Analysis Critical Control Plan (HACCP) to help you identify different areas of risk and their control points. HACCP is defined as a system to identify and correct errors as they occur throughout the flow of food; a process of assuring food safety. Since retail raw milk is a 'ready to eat' food, use a risk based inspection for identifying where Sanitation Standard Operating Procedures (SSOPs) can address areas of concern.

The most efficient way of achieving quick cooling of the milk is by using a water or ice bath. Do not plan on using refrigeration as your main coolant; it takes too long and may never reach temperatures low enough to meet requirements. Effective agitation of the milk will also assist in reaching the cooling requirements. Milk must reach 40° within 2 hours of milking. Proper recording of temperature and time is needed to demonstrate that this requirement is met.

Cross-contamination controls include restriction of traffic through the processing areas and good hand washing habits. Empty and clean milk storage tanks within 72 hours of milking. A well-designed HACCP plan can identify areas where there is potential for cross-contamination.

7Q: What are some of the basics for construction?

7A: Although all farms vary in lay out and design, keep in mind these basic requirements for all areas of operation:

- Concrete or other impervious material used for floors so that it is easily cleanable.
- Walls are washable and finished light in color.
- Doors and windows are tight fitting and screened when open.
- Adequate lighting and ventilation is provided.
- The space is large enough to handle maximum milk production and milk processing.
- Product contact areas are accessible for cleaning and inspection.
- Hot and cold water plumbed for hand washing and cleaning purposes.
- Bare wood does not provide impervious or washable surfaces.

ALWAYS check with your FSO before beginning construction to avoid costly mistakes.



8Q: Will there be new toilet requirements?

8A: All employees must have access to plumbed toilets that are convenient and maintained. You will have a self-closing door to the toilet room. Composting toilets may be approved, but must first be approved by the county or state health officials. Portable toilets are not acceptable for meeting the requirements.

9Q: Can I hot fill after milking?

9A: Yes. However you cannot do partial fills (i.e., you could not partially fill a container, chill it and then hot fill into that same container). Chill milk from each milking process before blending. Remember that all milk must reach 40° within 2 hours of the milking.

10Q: When will you collect my milk and what test will you do?

10A: We collect and perform retail raw milk testing approximately once a month. Legal test results must not exceed the standards listed below.

Bacterial Count	20,000/ml
Somatic Cell	750,000/ml (cow & sheep)
	1,000,000/ml (goat)
Coliform	10/ml

We also test products for antibiotic residues and perform surveillance testing for pathogens and pesticides. Currently, WSDA conducts surveillance testing for these human pathogens: Salmonella, Listeria monocytogenes and E. coli O157:H7.

You will receive a notice of non-compliance when the test results are above the standards listed above or positive for antibiotic residues, pesticides or contain strains of human pathogenic organisms. Only sample results from our laboratory are considered official. A private laboratory can test for quality purposes or for your own pathogenic test monitoring.

11Q: Can I set up my own laboratory on site?

11A: Laboratories may be set up on premises upon careful deliberation on placement and process and only if they are for quality testing only. No pathogenic bacteria lab testing will be allowed in any ready to eat food operation due to potential lab contamination of the environment. Articles unnecessary for milking and processing should not be stored in the milk house. When deciding on location for set up, consider foot traffic and potential cross contamination. Your Food Safety Officer can assist you with identifying potential problems when deciding where and how to set up a testing area.

It is not a requirement to have a lab on site or to perform your own milk testing.



12Q: **How many different facilities or buildings will I need to have?**

12A: Although retail raw milk processing plants are located on the same sites as the dairy farm, milk production and bottling activities must remain separate. This includes storage of milking production equipment and use of the milk processing plant for cleaning milk production equipment.

Milk processing rooms designed as processing plants can have a milk tank installed. Do all other traditional milk house activities separately (i.e., milking, equipment cleaning).

Adequate separation is required between the processing operations and the milking activities to reduce potential cross contamination. Upon approval from your FSO, time could create adequate separation. This will generally only apply to very small operations. Ask for technical assistance from your FSO to help determine the best option.

It is strongly recommended not to use the milk house for storing or selling the bottled milk to reduce foot traffic and to minimize potential contamination. Other options for storage and selling include a small storefront or a refrigerator located outside in a covered and protected location.

Include information in your license application as to the location and distance of the animal house areas, milk parlor and milk house from the milk processing plant.

13Q: **Is hand milking allowed?**

13A: Yes. Hand milking is an option for raw milk production. Take extra care when meeting the requirement because retail raw milk is a 'ready to eat' food.

Requirements for hand-milking include:

- Milker's hands are clean.
- Proper hand-washing facilities convenient to milking operations including hot and cold water under pressure and plumbed, soap and single service towels available.
- Dry hands with a clean towel before milking.
- Do not practice 'wet-hand milking'; this will increase the likelihood of contaminating the milk.
- Use a properly designed pail for capturing milk. Covered pails are preferred for protection against contamination.

Additional recommendations include:

- Repeat cleaning and drying process after any interruptions in the milking process.
- Rinse hands with a bactericidal solution.
- Remove all excess hair and maintain udder cleanliness.



14Q: **Do I need to have special bottling equipment for production?**

14A: Bottling and capping shall be done in a sanitary manner by means of approved equipment and operations. This could mean one machine with integral filling and capping or as simple as hand poured through a funnel and hand-capped. Your Food Safety Officer will work with you to establish a safe and sanitary system. See above question on equipment for other considerations.

Note: If you are planning to bottle your raw milk using only hand-filling and hand-capping, the guidelines established in 21 Code of Federal Regulations (CFR), chapter 1, Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food would apply. This covers such areas of concern as: hand washing, protective clothing, employee health, and education and training.

Examples of items that will help keep your food safe:

- Do not work in plant facilities when you are ill (e.g., diarrhea, vomiting, or fever).
- Wash your hands twice after using the toilet – once in the restroom, and then again when you return to the processing area.
- Use gloves or utensils instead of bare hands when processing.
- Wash, rinse, and sanitize all equipment used for production with approved cleaners and sanitizers.

15Q: **Must I label all containers and what is the ‘warning label’ requirement?**

15A: Yes, you must label all containers. Foodborne illness outbreaks associated with raw milk or raw milk products occur every year. This is why properly labeled raw milk intended for human consumption is a requirement for any sale. All Retail Raw Milk products must bear this label:

- **“WARNING:** *This product has not been pasteurized and may contain harmful bacteria. Pregnant women, children, the elderly and persons with lowered resistance to disease have the highest risk of harm from use of this product.*”
- Additional labeling requirements include name and location of business, contact information, pull dates, product identity (use common name), and volume. Perishable packaged food products with a projected shelf life of thirty (30) days or less must state the pull date on the package label. The **pull date** must be stated in day and month, and in a style and format that is readily decipherable by consumers. Also, when products require refrigeration either before or after opening, such information must be on the label. It’s up to you to determine a proper pull date. Also consider how the milk be displayed at the point of sale and if there potential for abuse.



16Q: **What other packaging considerations do I need to address?**

16A: Packaging material must protect the product from contamination and must not impart any toxic or harmful substances to the product. The cap or cover must cover the pouring lip to at least its largest diameter. You may want to consider using a tamper-proof cap. Purchase caps in a sanitary container and store them in dry location until ready for use.

Single service or re-usable containers both offer advantages; consider your marketing plan to decide which would be better for your operation.

17Q: **What types of raw milk products can a licensed Milk Processing Plant sell?**

17A: A licensed Milk Processing Plant can sell only fluid milk, skimmed cream, and skimmed milk. The plant cannot use a separator, homogenizer or any other mechanical device to separate raw cream from raw milk. The Milk Processing Plant cannot use raw milk to produce other food products such as yogurt, butter, puddings, or ice cream.

If you decide to begin processing other than retail raw milk or skimmed cream; you will need to obtain additional licensing and should contact your Food Safety Officer to discuss the process and potential hazards.

18Q: **Where can I sell my retail raw milk once I have completed the licensing process?**

18A: You can sell your raw milk at the same locations you would any food product, as long as it goes to the *end consumer* only. This means at grocery stores, farmers markets, on farm stores, or delivery. You may not sell your retail raw milk to restaurants and Federal regulations prohibit the selling of retail raw milk products across state lines. Check with your Food Safety Officer if you have concerns with your markets.

19Q: **What are some of the issues of concerns around raw milk consumption?**

19A: Any person with a compromised immune system, children, and the elderly or pregnant women are especially at risk. Some organisms that cause foodborne illnesses associated with raw milk consumption are: *Campylobacter jejuni*, *Salmonella*, *Listeria monocytogenes*, and *E. coli* 0157:H7. For certain pathogens such as *E. coli* 0157:H7, there may be no immunity, even for individuals who have consumed the product all their lives.

The United States product liability law allows people harmed by unsafe products, including food contaminated by microbial pathogens, to take legal action to claim money damages for their injuries. Talk with your insurance agent or lawyer for more information on protection.



20Q: **What animal health testing requirements do I need to meet?**

20A: Good herd management and sound biosecurity practices are recommended to maintain optimal herd health. The testing requirements may change as ordered by the state veterinarian as new animal diseases emerge. Current animal health testing requirements and information on animal health issues can be found on our website.

Brucellosis:

Brucellosis is one of the most serious diseases of livestock, which affects primarily cattle but may affect other animals. It is spread to humans from the milk of infected cows. In humans it causes undulant fever, a chronic disease characterized by recurrent fever and general malaise. Vaccination of young animals and annual testing of adult livestock accomplish prevention in cattle. Washington law RCW 15.36.161 requires those animals producing milk for raw milk consumption is tested for Brucellosis within the previous 12 months. This is a blood test in which the sample must be drawn by an accredited veterinarian and tested at a state-approved laboratory.

Tuberculosis:

Tuberculosis is a contagious disease of cattle and other animals. It has a wide range of hosts and can also be contagious to humans. The primary source of infection to humans is the consumption of raw milk. It affects primarily the respiratory system but may affect other organs. Control in livestock is accomplished by annual testing. Washington law RCW 15.36.161 requires those animals producing milk for raw milk consumption be tested for Tuberculosis within the previous 12 months. The test is a skin sensitization test in which 0.1 ml of tuberculin is injected into the skin at the base of the tail. The area is observed 72 hours after injection for the detection of any response. An accredited veterinarian must perform the test.

Technical Assistance

We understand that clean, safe food is as much your goal as it is ours. If you need any technical assistance in clarifying the rules and regulations or answering questions concerning safe food production, contact the Food Safety Program to talk with your Food Safety Officer.

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