



Arizona Department of Agriculture

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Updated: November 6, 2015

To: Interested parties

Guidelines for Small Dairies and/or Small Milk Processing Plants

A milk plant is any place, premises or establishment where milk or milk products are collected, handled, processed, stored, pasteurized, aseptically processed, packaged, or prepared for distribution. A dairy farm is a place or premises where one or more lactating animals are kept for milking purposes, and from which a part or all of the milk or milk product(s) is provided, sold or offered for sale to a milk plant.

The establishment of a dairy farm and/or a dairy processing facility of any size and location is a very involved undertaking. The Arizona Department of Agriculture (ADA) Dairy Control Program administers and enforces dairy rules and regulations designed to protect the general public health and be of service to the dairy industry. All dairy facilities must be approved and permitted by the ADA before the sale of any milk product can be made. It is imperative that consultation with the ADA Dairy Control Program take place before any definite plans for dairy processing are made.

Rules and Regulations

Grade "A" Pasteurized Milk Ordinance (PMO)

Arizona Revised Statutes, Title 3, Chapter 4

Arizona Administrative Code, Title 3, Chapter 2

3A Standards for Construction of Dairy Equipment

USDA General Specifications for Dairy Plants

FDA Good Manufacturing Practices (GMP's)

Code of Federal Regulations (CFR) 21 & 7

Submission of Plans, Blueprints and Drawings

A copy of all construction plans must be submitted to ADA Dairy Control Program before construction begins. This should include information on the following items:

Basic building layout showing all doors and windows

Plumbing layout, drain locations, wash vats, and hand sinks with hot and cold water

Electrical diagrams and lighting

Position of the processing equipment, to include tanks, fillers, pasteurizers etc.

Diagram of the milk piping layout in the plant

CIP (clean in place) or manually cleaned

Flow of milk – raw and pasteurized

Valve locations

Equipment construction, size, material

Recorder locations

Toilet facilities are required, with proper waste disposal. The facility must have its own approved septic system or be connected to a city sewer system. The toilet room cannot open into a processing area and must have a handwashing sink.

Type of materials used for floor, walls and ceiling

Storage facilities—for ingredients, containers, raw product, finished product

Ventilation plans

Utility locations—boilers, water heaters, glycol or sweet water tanks, compressors, CIP tanks and recorders

Milking Parlor

The parlor and milk room shall be located in a place free from contaminated surroundings.

Feed racks, calf pens, bull pens, horse stables, horse corrals, and shelter sheds shall not be closer than 100 feet to the milk room or closer than 50 feet to the parlor.

Dirt or unpaved corrals and unpaved lanes shall not be closer than 25 feet to the parlor or closer than 50 feet to the milk room.

A paved concrete ramp or corral shall be provided to allow the animals to enter and leave the parlor.

Floor level elevations of all structures shall be 15 inches above surrounding ground level and shall carry drainage 50 feet from the parlor and at least 100 feet from the milk room.

Floors shall be constructed of 4 inch thick concrete, light colored and finished smooth. Floors shall slope lengthwise at least 1 & ½ inches per 10 feet toward a drain or gutter.

Floor and wall junctures shall have at least a 2 inch radius cove and be an integral part of the floor.

Walls shall be constructed of a light-colored, impervious material that shall extend at least 4 feet above the ground floor.

Milk Room

The milk room shall not be more than 15 feet from the parlor and may be located under the same roof (extended) as the parlor. The milk room shall consist of one or more rooms for the handling of the milk and the cleaning, sanitizing, and storage of the milk handling equipment. Hot and cold running water shall be available in each room.

The floors of the milk room shall be constructed of 4 inch thick concrete troweled smooth. The milk room floor shall slope at least ¼ inch per 12 inches to a vented, trapped drain. The passageway floor shall slope at least 1 inch per 10 feet to a drain or gutter. All floor and wall junctures shall have at least a 2 inch radius cove.

Drainage from the milk room may be independent from or connected to the parlor drainage. Floor drains shall be vented, have a water trap, and a clean out plug. All floor drains and pipes under the milk room shall meet all applicable plumbing codes.

Walls and ceilings shall be constructed of an impervious material, light in color with a smooth finish.

Exterior doors of the milk room shall open outward, be solid, self-closing and tight fitting.

All working areas to have at least 30 foot candles of lighting.

Bulk milk tanks shall be equipped with a continuous temperature chart recorder.

Cooling

All raw milk and milk products shall be maintained at 45°F or less until processed. All milk, except when being pasteurized or further processed, must be at or below 45°F. After pasteurizing a cooling medium must be used to cool the milk as soon as possible before it is bottled or stored... Once bottled it must be maintained at or below 45°F at all times in an approved cooler with an accurate thermometer. Delivery trucks must also maintain temperatures below 45°F at all times.

Packaging and Capping

All bottling and packaging of milk and milk products must be done in a sanitary manner by approved mechanical equipment. No hand capping.

Labeling

Labeling design needs to be started as early as possible, since all labels must be submitted to and approved by ADA prior to selling the product.

All bottles, containers and packages enclosing milk or milk products shall be labeled in accordance with the applicable requirements of the Federal Food, Drug, and Cosmetic Act, the Nutrition Labeling and Education Act of 1990(NLEA), the Code of Federal Regulations (CFR) and in addition shall comply with applicable PMO requirements.

Water Supply

Water for milk plant purposes shall be from a supply properly located, protected and operated and shall be easily accessible, adequate and of a safe, sanitary quality.

If a new water supply is needed, all distances from sources of contamination must be strictly followed as outlined by the Government Water Control Authority.

Water will be sampled every 6 months. The water supply must be protected from unsafe water (i.e. submerged inlets and the possibility of negative line pressure).

Milk Quality and Testing

Milk and milk products are sampled and tested on a regular basis to assure quality, safety and labeling compliance of the product.

Milk samples results are kept as part of the farm and plant official record. Whenever 2 of the last 4 consecutive samples exceed the limit of the standard for that product, a written "Notice of Intent to Suspend" letter will be issued. Within 21 days of the letter, but not before the lapse of 3 days, an additional sample will be taken. Immediate suspension of the permit or product will be instituted whenever the standard is violated by 3 of the last 5 samples.

All milk that is used for processing must be tested for antibiotic residue as required by Appendix "N" of the PMO. Proper certification is required from the State Agricultural Lab in order to run this test in a plant.

There are many types of milk products. ADA will collect samples for routine analysis according to the specifications indicated in the applicable rule. The PMO applies to all Grade "A" products. Manufacturing grade standards can be found in the CFR's and USDA rules. Arizona State rules and regulations may also apply.

Bacteria, antibiotics, phosphatase and somatic cell counts are some of the items tested for in various products.

Recalls of product may be necessary when a public health hazard is found.

Dairy Herd Testing

Dairy herds must be tested for Brucellosis and Tuberculosis, by a State certified veterinarian, before a permit can be issued to a raw milk bottler. Additional testing may be required depending on the type of animal being milked.

Regulatory Inspections

Inspections are conducted by the Department's dairy inspectors, before a permit or license is issued, to determine compliance with rules and regulations. Facilities with pasteurizers will need to have them tested, by the Department, prior to use.

If there are further questions about starting a dairy operation, please contact Dairy Control at (602) 542-4189.