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## **Diez Razones Comunes por las Cuales Ocurre la Contaminación con Antibióticos en los Tanques de Leche a Granel**

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- 1 La leche de una vaca que está bajo tratamiento de antibióticos fue accidentalmente desviada por la tubería.
- 2 Una vaca durante el periodo de secado y bajo tratamiento de antibióticos fue ordeñada accidentalmente.
- 3 La misma unidad de ordeño fue usada para una vaca que está bajo tratamiento de antibióticos así como vacas que no están bajo tratamiento. La unidad no fue limpiada o desinfectada entre usos.
- 4 Las vacas lactantes fueron compradas y el nuevo dueño no sabe si recientemente estuvieron bajo tratamiento de antibióticos antes de ser vendidas.
- 5 Uno de los pezones de la vaca fue tratado para mastitis y la leche de esta fue retenida del tanque principal. Sin embargo, la leche de los otros 3 pezones no fue retenida y fue permitida su entrada al tanque principal.
- 6 El equipo para ordeñar las vacas que estuvieron bajo tratamiento no fue usado apropiadamente, por ejemplo, el vacío creado en el tubo de la leche fue usado para operar las cubetas de depósito de leche.
- 7 Todas las vacas secas que fueron tratadas con antibióticos fueron ordeñadas al último pero la leche no fue desviada del tanque principal de leche.
- 8 Los residuos de antibióticos se quedaron en la leche de la vaca que fue tratada extra-etiqueta con una dosis mayor a la recomendada en la etiqueta. Estas son las vacas que deben de ser probadas individualmente.
- 9 Alimentos medicados fueron accidentalmente revueltos con la ración para vacas lactantes.
- 10 Las vacas tomaron agua medicada del pediluvio.

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## Err on the side of safety!

Accidents and human error are unfortunate events but the end results (milk residues) are still violations. Treated cow identification protocols need to be farm specific and standardized so all farm personnel can readily distinguish a medicated cow. When a cow needs medication, the first treatment step (before any medications are administered) should be the application of some form of semi-permanent identification. At least two different identification methods should be employed. These may include leg bands, chalk marks, tail tape, neck chains, or some other form of secure identification that can be easily removed when the withholding time has expired.

→ When FDA-approved drugs (for dry and lactating cows) are used according to the label directions, producers should follow the recommended withholding times. Extensive product evaluations by drug manufacturers have built safety factors (required by the FDA) into the established withholding times. These safety factors are 100 to 1,000 times lower than the lowest dose expected to cause a violative residue in milk. **Drugs used in an extra-label manner MUST be used within the context of a valid veterinarian-client-patient relationship.** Extra-label treatments **DO NOT** have established withdrawal times; therefore, the prescribing veterinarian must supply a withdrawal time for meat and milk sufficient to assure food safety. Administering two or more FDA drugs into one cow simultaneously is considered extra-label drug use and may result in violative residues due to unknown pharmacological effects. Extra-label use includes changing the dosage, frequency or route of administration and may result in violative residue. Even though FDA-approved medications are used according to label directions, extended withholding times may be needed for cows that calve earlier than expected, cows that are severely ill, or cows that do not respond to label treatments.

→ **Milking all treated cows AFTER untreated herd mates is an important preventive measure and strongly advised.** Milk dump-buckets connected to pipeline vacuum can overflow or be tipped, allowing contaminated milk to enter the system. Frequent disposal of contaminated milk from dump-buckets may reduce the potential of overflow into the pipeline.

→ Although milk residue tests are not designed or approved for individual cow testing, milk from all purchased cows should be evaluated for residues by a test kit that detects the same drugs as the farm's milk processor. This should occur before commingling purchased-cow milk in the bulk tank. Milk should be discarded from all cows which test positive. It may be prudent to discard milk from purchased additions for at least eight milkings regardless of milk residue test results.

## When in doubt, dump it out!

→ Using the same milking unit on treated and untreated cows without thoroughly cleaning and sanitizing between cows is a violation of the Pasteurized Milk Ordinance. Extremely small quantities of contaminated milk can result in bulk tank residues. Milking treated cows last is a wise practice. If facilities do not allow isolation of treated cows, a separate, labeled hospital unit connected to a dump-bucket can be employed.

→ Segregate treated cows from lactating cows, preferably in a separate facility. Physical isolation will reduce the potential for unintentional commingling of treated dry cows with the lactating herd. The farm specific, two-way identification system mentioned previously should make it simple for milking personnel to easily recognize antibiotic-treated cows.

→ Prior to milking, a treated-cow list could be hung from the bulk tank swing line. Temporary parlor (milking) down-time should occur between milking untreated herd mates and treated cows. Even if untreated cows remain in the parlor as "place-holders," all milking units should be removed and readied for the medicated milking string. To retrieve the treated-cow list from the swing line, one must enter the milk house. Before removing the treated-cow list, pull the swing line out of the bulk tank. Use the treated-cow list to cross check the remaining cows to ensure that all treated animals have been withheld.

→ The practice of using medicated footbaths to control hoof diseases has some scientific basis. Once manure accumulates in the footbath solution, the efficacy of the medication may dramatically be reduced. Treating individual lame cows with sprays and/or corrective hoof trims might be considered and may reduce the potential for residues.

→ Medicated feeds should not be used to control diseases in lactating dairy cows. The diseases for which medicated feeds were developed can be controlled through improved environmental and nutritional management. If medicated feeds are used on the farm for non-lactating animals, store them in a separate facility from lactating cow feed ingredients.

→ All FDA approved drugs designed for intramammary use will be absorbed into a cow's blood stream after infusion into a quarter. The bloodstream carries the nutrients used to produce milk within the udder. Antibiotics absorbed into the bloodstream can also be transferred ( along with nutrients) to all functional quarters. **Discard milk from all four quarters, regardless of which quarter was treated!**