CLEANING MILKER INFLATIONS

With Cold Lye Solution

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**MILKSOIL DAMAGES INFLATIONS**

Normal daily cleaning of milker inflations does not remove all the fat and other milksoil from the rubber. Inflations absorb butterfat from the milk, and milksoil also accumulates on the surface of the inflations. This causes the rubber to deteriorate and tiny cracks appear which provide ideal conditions for bacteria to accumulate and grow. This condition hardens the milker inflations, shortens their life and slows down the milking action.

Rubber parts, especially inflations, change weight and size with use because they absorb fat. Synthetic rubber absorbs the least, and gum or latex the most.

**HOW TO CLEAN**

This new lye soak method requires two sets of inflations for each milking machine. One set is stored in cold lye solution for 7 days while the other set is in use.

The lye solution softens the fat and milksoil and draws it to the surface of the inflations. Here it accumulates as a soap or soapy film. Lye and fat together react to form a product with all the characteristics of soap. Since this soap film clings to the inflation, the lye solution remains clean and may be used several months without change.

**PREPARATION AND STORAGE**

The lye solution for soaking inflations is prepared by mixing two 13-ounce cans of lye into 3 gallons of soft water. Store this lye solution in a plastic, stainless steel or enamel container as it will corrode most metal.

![Diagram of lye solution preparation](image)

3 Gallons Water, Plus 2 Cans Lye, Makes Lye Solution

A 5-gallon covered steel pail has been used by some farmers for a year with only a little corrosion.

The container should be large enough to hold 3 gallons of solution, plus the inflations and any other rubber parts that come in contact with the milk. It should have a tight lid or cover so children cannot touch the solution. This is important because this strong lye solution is poisonous and will burn skin or eyes on contact.

It is recommended that you make an inflation holder to hold the inflations in an upright position and for ease in removing from lye solution. Rubber gloves may be used if you do not have a holder.

The inflation rack or holder is easy to make by shaping bronze or stainless steel welding rods to hold eight or more inflations and welding them together as in Fig. 1. The handle should be long enough to extend above the lye solution and still fit into the pail when the lid is on.

**BENEFITS OF LYE SOAK**

This method of caring for inflations is more effective in removing fat from rubber than the old method of boiling in lye solution.

This weekly treatment tends to restore the rubber to its original condition. It leaves the rubber inflations clean, pliable and free of bacteria. It not only lengthens the life of the inflations, but good, clean live rubber speeds up milking and aids in maintaining the health of the cow's udder.
If the inflations are placed in a container in a horizontal position, be careful to avoid dead air space within the inflations. Such air spaces will keep the lye solution from touching the surface of the inflations.

**PREPARING INFLATIONS FOR USE**

After inflations have soaked in lye solution for a week, they are again ready for use. Remove inflations from solution and rinse with clean water before putting in wash tank. If this is not done the excess lye solution on the inflations is likely to cause some corrosion of the wash vats.

Immediately after rinsing, place inflations in wash vat of warm water and scrub inner and outer surfaces thoroughly. Wash each inflation with an inflation brush to remove the soap and milksoil that has accumulated on the inner surfaces.

A washing solution prepared with mild acid milkstone removers is more effective than water for washing inflations after removing them from lye solution.

After washing, rinse thoroughly in clean water and hang to drain dry until milking time.

Research Information From Dairy Dept. Michigan State College on "Pot Exactions From Milker Rubber With Lye Solution."