

## **Milking By Machine**

### **By Maggie Leman**

I LOVE PYGMY GOAT MILK!! I have done my time milking by hand! I bought a small goat milking machine from a well-known goat supply company over 4 years ago. With the popularity of Nigerian Dwarfes and with the growing demand for specialty artisan cheeses, many companies have designed milking machine systems specifically for goats and miniature goats. They come with detailed instructions for maintenance and use, read and follow them closely. It makes milking a simple and enjoyable task for both my fabulous little goats and me. I can feel free to milk as many does as I want because it is so easy. The milk stays cleaner, it's faster than hand milking, the pressure and rhythm is always the same and I swear you get more because the does stay relaxed. I have plenty of colostrum banked for needy newborns, my occasional bottle baby has pure pygmy milk to grow on and there is plenty for Dan and me to share. Pygmy goats are more forgiving of our busy lifestyles and do fine on one milking a day, especially if they have at least one kid to feed. I am sure production could be increased if I milked twice a day, and fed alfalfa hay to my milkers, but they make plenty on just a bit of extra grain during milking. Four average does are giving me over half a gallon a day, every day.

I start with the same procedures as for hand milking, the bucket, inflations and hoses were washed and sanitized the night before and hung to dry. I wash my hands. After getting the doe onto the stand and settled with her grain ration, I check her over, maybe give her a quick brush, wash her teats with a wipe and dry them. I milk out the first squirt or two, checking to see the milk is normal, with no clumps, blood, or stringiness. After turning on the machine and making sure the vacuum pressure is correct, I attach the inflations first to the far side and then to the side closest to me. I make sure the teat is straight in the inflation not folded, I make sure the inflations are hanging (resting) in as natural a position as possible, pointing slightly forward and out and watch the flow of milk. Most of the time the doe lets her milk right down, if not I massage the udder or even bump it lightly like a kid would. As the flow slows I massage the udder helping the last of the milk flow down and the udder empty. I turn off the vacuum to the inflation and gently pull it from the teat. I usually turn the vacuum back on briefly to empty the inflation and claw of milk to avoid dripping. I wipe the teat again unless she is nursing kids, I find the does resent a cold dip or spray and lead them off the stand to finish their grain and have a bit of hay before they rejoin the herd.

I milk the regular string first, and empty the milk into a container with a lid if I have any new fresheners joining the string that day. Your own goat's colostrum is a very valuable resource. It contains antibodies specific for your herd. After the new kids have nursed for 2 to 3 days, and gotten most of the colostrum, I introduce any new fresheners to the milking routine. Any does that have freshened but don't have kids to feed are milked the day after kidding and that colostrum is definitely banked, as it is the best quality. Either way, because the first few days of milk may contain colostrum, I keep it separate, and either save it for newborns and bottle babies that need it or discard it as it doesn't taste very good.

Milking is the last chore of the day as cleaning the machine and cooling the milk quickly is important. I disconnect the hoses from the pump and pulsator and stow them under a cover with the machine. I take the milk hoses, inflations and bucket of milk to the kitchen. I take the bucket lid off, pour the milk through a cloth to filter it and pour it into a jug. The jug goes into a bucket of ice water and into the fridge. Cooling this way, in water, brings the temperature of the milk down faster than either the refrigerator or freezer can alone. I imagine using an ice cream maker with ice water would probably do it even faster. I rinse the bucket, lid, inflations and hoses in tepid water. Cold water hardens the fat and makes it stick; hot water cooks the milk and forms milk stone. I run a sink full of water with dish detergent and a couple of Tablespoons of Clorox (you really don't need much for good disinfection and you don't want to leave a bleach residue). I use an inflation brush to clean nearly everything, and pour the soapy water through the equipment and let it soak. I swish out the bucket then refill with soapy water and wash it inside and out.

I use a Safeguard Home Pasteurizer. It will pasteurize 2 gallons of milk at a time. I usually hold the milk until I have 2 gallons (or more) and do my pasteurizing then. You can also pasteurize on the stovetop in a double boiler (this prevents scorching and a cooked milk taste). To pasteurize you must heat the milk to 160°F hold for 30 seconds and then cool rapidly in a sink of cold water. Or to further lessen the cooked milk taste you can heat to 145°F, hold for 30 minutes and then cool rapidly. Stir often to ensure the temperature is even throughout. Pasteurizing helps to lessen the goatly flavor that milk develops when held more than a couple of days by destroying caproic acid in goat's milk.