

## BUTTER AND MILK...WHY CAN'T THEY BE CANNED?

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Often times, Master Food Preservers ponder why it is not recommended to add cream or milk to canned soup recipes. Invariably, an attendee at an MFP public education class will also ask if milk can be canned or ask why canning dairy products like milk and butter are discouraged. The common response, that it is not recommended or deemed safe by the University of California/Davis Co-operative Extension satisfies most Master Food Preservers and students. But, for those who want to know the real reason, it is quite simple—chemistry and microorganisms.

Look no further than a post by Dr. Elizabeth L. Address, National Director of Home Food Preservation, University of Georgia Department of Foods and Nutrition. Dr. Address, a Professor and Extension Food Safety Specialist, commented on several questions posed regarding the safety of home canning soups that contained butters and milks. According to Dr. Address, there are no established safe procedures for canning dairy products. She echoed the stance that many personal internet sites that share canning recipes and information pose safety concerns: For a recipe to be safe, it needs to be thoroughly challenged in microbiology studies to confirm a safe product is achieved every time it is processed. Dr. Address further explained that the “amount of heat that would have to be applied to kill harmful bacteria” that grows in dairy products in a processed jar held at room temperature would be “extremely detrimental to its quality.” She went on to say that, “Milk is a finely balanced emulsion of proteins in water. If the proteins are over-heated, they drop out of suspension and the milk separates (<http://forums.gardenweb.com/forums>, Sept. 25, 2007).”

Dr. Linda Harris, U.C. Davis, agreed with Dr. Address’ comments adding that safe home canning of milk and butter is simply impossible to do. She recommended freezing as the best home preservation method for these products. In addition, Dr. Linda Harris reiterated that milk and butter are low acid products that “support the outgrowth of *C. botulinum* and toxin formation in a sealed jar at room temperature.” She explained that fats can protect botulism spores and toxins from heat if they are in a product during a canning process. This is why canning milk, butter and/or the addition of milk or butter to other products to be canned is not recommended.

More information on this and other subjects can be found at the University of Georgia’s National Center for Home Food Preservation website ([www.uga.edu/nchfp](http://www.uga.edu/nchfp)) and the Joy Kitchen ([www.thejoykitchen.com](http://www.thejoykitchen.com)).

Questions about safe home food preservation? Call the Master Food Preservers and leave a message at (530) 621-5506. A Master Food Preserver will return the call. The Master Food Preservers are also available free of charge to speak to organizations and clubs about food safety or food preservation topics. Just call the number above to arrange for a speaker for small or large groups. For more information about the public education classes and activities, including the free public classes on food safety and pressure canning, be sure to go to the Master Food Preserver website at [http://ceeldorado.ucdavis.edu/Master\\_Food\\_Preservers/](http://ceeldorado.ucdavis.edu/Master_Food_Preservers/).