

# LPC Checklist

LPC or Lab Pastuerization Count is the number of bacteria per ml of milk which survive laboratory pasteurization at 62.8° C (145° F) for 30 minutes. These thermoduric bacteria in milk include species of Micrococcus, Streptococcus, Lactobacillus, Bacillus, Paenibaccillus and occasionally gram-negative rods. As a guide, 200 is considered good, 100 high-quality, under 10 excellent quality. The acceptable count is determined by the processor and is currently not a legal standard in Wisconsin or Minnesota.

Trouble shooting a high LPC problem can be tricky. Milking sanitation, water temperatures, contaminated bedding and machinery malfunctions can all play a part. Below, there is a checklist to help you start working on the problem. First though, have a bulk tank culture taken.

Coliform bacteria like the same conditions as the LPC bacteria. The difference is that coliform bacteria are exclusive to sanitary conditions. In other words, if the LPC high and the coliforms are high, the problem is most likely sanitation. If the LPC is high and the coliforms are low, the problem is most likely equipment. Here are some guidelines:

Bulk tank culture is high in coliform bacteria:

Culture bedding
Culture silages
Look and eliminate for wet areas
Clip hairy udders
Change udder prep: milk dry udders
Make sure predip stays on for 30 seconds
Check water for bacterial contamination

Bulk tank culture is low in coliform bacteria:

Check temperature, chemical concentration and duration of wash cycles:
Prewash: 100-120F run until clear
Detergent: 140-165F-never below 120F pH 11-13 10 minute run
Acid: 90-110F run time will vary with product
Check for hard water
Check for cracked or worn out liners, milk hoses, jettors and gaskets
Check for pipes, hoses, fittings and equipment that doesn't drain
Check air injectors for proper use and cleanliness
Check pipe bends and dead ends that are difficult to clean
Check small components that are difficult to clean, for ex. milk meters, sensors
Check for biofilm in the receiving jar
Check to see if the milk is cooling quickly
Check for a bend in the pipeline