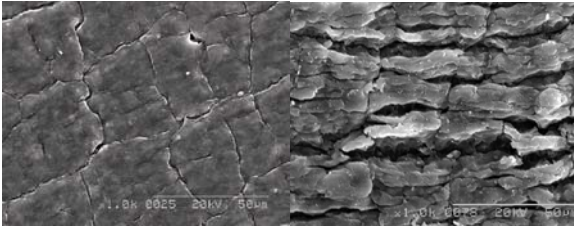


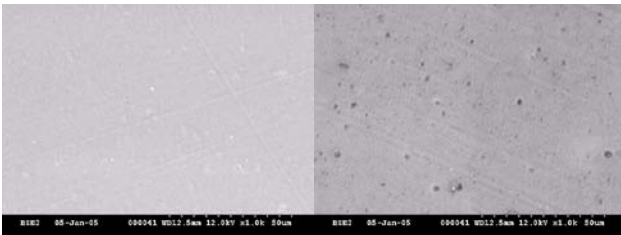
## When do liners need changed and why?

All liners have a life cycle and that life cycle is determined by material selection and design of the liner. The physical breakdown of the liner actually comes from the exposure to chemicals in the wash solutions, components within the milk itself, and repetitive cycling. The photos in Figure A illustrate the degradation that has taken place in an organic (black rubber) liner. The first photo is a brand new organic (black rubber) liner and the second photo is the same liner after 1000 milkings. The photos are at 1000x magnification. The organic liner, after 1000 milkings, clearly has cracks large enough for bacteria to hide in.



**Fig. A** Organic Liner – 0 Milkings (L) and 1000 Milkings (R)

The photos in Figure B feature a brand new Lauren Liner and the same liner after 3000 milkings. There is no cracking but physical properties are changing. This liner is manufactured from silicone, which provides the ability to withstand chemical breakdown far longer than a liner made of natural rubber.



**Fig. B** Liner Liner – 0 Milkings (L) and 3000 Milkings (R)

The performance of the liner is affected by the change in the touch point of the liner through its life cycle. Once a liner gains memory from repetitive opening and closing, its touch point drops which changes the way that liner operates at your set vacuum level. Certain liners do change more than others.

Any time you choose to go outside the recommended life of the liner you jeopardize milk quality and udder health. Changing your liners on time is just one more attention to detail that helps our high performance systems milk today's high performance cows.