

Bacteriophage

Are you aware what “Phage” is and ways to battle it at your customer? A bacteriophage, commonly referred to as Phage, is a virus that infects and replicates within bacteria. It can be present at low levels in plant environments but can be increasingly problematic if the following conditions are not controlled. Keep in mind, a chlorine sanitizer or [PAA](#) are more effective than acid sanitizers.

- Keep whey from running to the floor, or overflowing tanks.
- Make sure process tanks and vessels are rinsed out with chlorine or PAA sanitizer on a regular basis.
- Rotate cultures regularly.
- If reintroducing whey cream, make sure it is pasteurized (high temp) prior to reintroduction.
- If re-using whey cream, make sure you break the cycle periodically. Typically, every 3 days you should avoid reintroducing whey cream just to break the cycle to help combat the phage.
- Whey tanks for pre draw, make sure you are emptying them every 4 hrs. and use chlorinated sanitizer on them minimally. Best to perform a full CIP.
- Sanitize the production floors in the make room, DMC (de whey belt), and starter room every 4 hrs. with chlorine. It is also a good practice to rinse out the belly of the DMC at mid-shift.
- Important that vat sanitizer is at proper concentration.
- Send out whey samples to starter company to see log growth of various cultures, rotating out the ones with high counts - a 3-week rotation is recommended. Work with your starter company’s tech service rep for proper rotation and suggestions.
- Air handling is critical! Recommend 10 complete air exchanges per hour.

Special Note about Fine Savers

- Plants will reintroduce fines back into the process stream for yield purposes, but they need to understand the risk both from a phage as well as coliform risk standpoint.
- Make sure they are being sanitized with chlorine every couple of hours.
- Watch for rotary screens blinding and whey on the floor in this area.
- Soak screens in enzyme or chlorine.

Reach out to the **RITE team** for more information on bacteriophage and sanitation best practices.

Bacteriophage Structure

