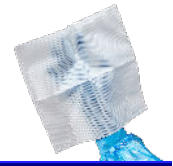




Proper Manual Sampling of Other Raw Ground Beef Components Using a MicroTally® Mitt Sampler



Introduction

The **MicroTally® Mitt Sampler** (Catalog Number: MT-M100) is a type of manual sampling device (MSD) and specifically designed for direct surface sampling of food matrices, including beef, pork, poultry, and produce. After sample collection, the Mitt Sampler facilitates downstream microbiological analysis for pathogen detection and indicator testing, providing an efficient alternative to direct food product testing. Accurate and reliable sampling results depend on strict adherence to standard manual sampling protocols. This user manual focuses on the proper sampling procedures for Other Raw Ground Beef Components (ORGBC) using a MicroTally® Mitt Sampler. For additional instructions and applications for the Mitt Sampler, please contact FREMONTA Corp or visit www.MicroTally.com. Training videos can also be found on FREMONTA's YouTube channel.

Important Notices

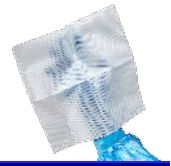
- The MicroTally® Mitt Sampler is sterile and packaged in plastic overwrap. After sampling, place the used Mitt in the provided sterile sample bag.
- Use one MicroTally® Mitt on a single hand for sampling.
- The goal is to sample as much of the ORGBC in up to five boxes as possible using an aggressive, vigorous technique of scrubbing the Mitt across the ORGBC pieces front to back and side to side and pushing the Mitt down in between and around meat pieces to maximize the amount of ORGBC sampled with the Mitt.
- Sample by vigorously rubbing across the surface of the product and down 4-6 inches around the product pieces into each box, turning the MT-Mitt over at the halfway point.
- Perform sampling for at least 90 seconds, dedicating at least 45 seconds to each side of the Mitt. If longer is needed to get a good sample of all the ORGBC in the boxes, then go ahead and sample longer.
- The most likely pitfall is personnel collecting the samples not being aggressive enough in sampling. The sampling must be vigorous enough so that any contamination that might be on the meat is transferred to the Mitt.
- Dry ice should not be applied to the top of the boxes prior to sampling. If the top layer of ORGBC in the combo is frozen with dry ice it will lead to inefficient sample collection with the MSD and may damage the samplers' hands.
- Carryover of antimicrobial sprays (e.g. lactic acid, PAA, etc.) in certain instances may require neutralization and validations using neutralized and non-neutralized samples should be considered in those instances. Some plants add organic acid directly to the ORGBC products in the hopper, just prior to boxing the product. In that situation, it is best to collect all five boxes as a group, sample the group with a Mitt, and immediately add 25 ml of neutralizer. Sampling one box and then holding the Mitt until the next box comes down the processing line would likely be too long of a delay before neutralization and may negatively impact the sample integrity.

Logistics

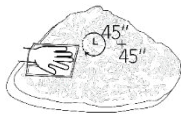
- The ORGBC are packed in 60-lb boxes. The number of boxes in the lot is determined by the processor.
- The MSD sample will come from up to five boxes from the lot. If the lot is less than five boxes, all the boxes in the lot will be sampled.
- If there is no need for immediate neutralizing of antimicrobials, the samples can be collected one box at a time and placing the Mitt into the sample bag while waiting for the next box.



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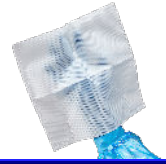
Sampling Procedure



1. Assemble the appropriate sampling supplies. In a sample preparation area, remove the perforated top from the MicroTally® Mitt sample bag, open it, and place it on a sanitized surface.
2. Open the sample box by removing the lid.
3. Wear plastic sleeves and gloves. Sanitize gloves and sleeves appropriately using an alcohol-based sanitizer **without** quaternary ammonium compounds (e.g., Alpet D2 **Quat-Free**; Best Sanitizers, Penn Valley, CA). Also, sanitize the exterior of the Mitt overwrap.
4. Ensure there is no excess sanitizer on the gloves before handling MicroTally® Mitt.
5. Tear open the Mitt overwrap, remove the Mitt, and place the Mitt on the gloved hand to be used for sampling. Do not touch anything aside from the box liner, meat, MicroTally® bag, and MicroTally® Mitt.
6. Use both hands to vigorously scrub the ORGBC with the Mitt using front-to-back and side-to-side motions.
7. During sampling you should thoroughly scrub the top surface of the ORGBC and drive the MicroTally® Mitt into the crevices between the pieces to sample as much surface area as possible.
8. You will use all of one side of the MicroTally® Mitt for sampling each 45-second sampling of the sample box contents. Use a readily visible timer to facilitate proper sampling time.
9. The total sampling time will be no less than 90 seconds. If longer is needed to get a good sample of all the ORGBC in the sample box, then go ahead and sample longer. The 90 second minimum is for actual sampling time, if sampling is delayed for some reason (something is in the way or someone comes by to talk to the sampler, etc.) the timer should be stopped until sampling resumes (or extra time added at the end to compensate).
10. The 90 seconds will be divided by the number of boxes to be sampled. If you sample five boxes, each box is sampled for an 18-second interval. The total time to sample all five boxes will be a minimum of 90 seconds.
11. The total sampling time is to be a minimum of 90 sec regardless of the number of boxes to be sampled.
12. Again, make sure to scrub the top surface of the ORGBC and drive the MicroTally® Mitt into the crevices between the pieces to sample as much surface area as possible.
13. When the sampling is complete, refold the MicroTally Mitt and return to original bag and add neutralizer if required. Close and label the sample bag.
14. Weigh the sample and record for monitoring sample consistency.
15. Send samples to the lab for processing.
Note: Placing ice blocks directly against the MicroTally samples can cause some localized freezing of the MicroTally samples. Put a layer of cardboard between the Mitt samples and the ice packs.



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Sample Testing

1. If not collected already, the lab should tare a scale to an unused sample bag and MicroTally® Mitt then weigh each sampled MicroTally® Mitt and bag. A baseline of sample weights should be kept ensuring samples consistently obtain similar weights. This weight along with a two-person timing system can be the basis for a verification program (see below).
2. Following weighing, add 200 ml of bacterial growth media to the sample bag containing the MicroTally® Mitt and stomach for at least 30 sec. Ensure MicroTally® Mitt is pushed to the bottom of the bag.
3. Remove aliquots for enumeration of indicator counts and pathogens as needed. Incubate remaining sample enrichment.
4. Sample enrichment incubation times and temperatures will be in accordance with pathogen detection test platform validation procedures.

References

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