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Attachment Strength of *Salmonella enterica* serovar Newport and *Listeria monocytogenes* on Melon Hybrids Grown in Five Different Regions of the United States

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Contamination of melons by foodborne pathogens is an ongoing concern in food safety because pathogens may attach to melon rinds and can be difficult to remove and may lead to foodborne illness. The purpose of this project was to evaluate a set of novel melon hybrids for the attachment strength of two foodborne pathogens, *Listeria monocytogenes* and *Salmonella* Newport. Melons grown in five different regions (Texas-Weslaco, Texas-Uvalde, Arizona, Indiana, and California) around the US were tested for attachment strength using melon rind discs. The discs were inoculated with an overnight culture of either *L. monocytogenes* or *S. Newport* (7 log CFU/mL) and the pathogens were allowed to attach for 30 minutes in a bio-hood. Then, the discs were vortexed for 15 sec to remove loosely attached bacteria and then sonicated for 2 min to remove strongly attached bacteria. Samples were then serially diluted and plated on either xylose lysine desoxycholate agar (*S. Newport*) or modified Oxford formulation agar (*L. monocytogenes*). The attachment strength was calculated as the ratio of CFU of strongly attached bacteria to the total CFU of both loosely and strongly attached bacteria. Hybrid TH9 had the highest attachment strength (0.40 ± 0.18) while S-MA had the lowest attachment strength (0.22 ± 0.08) for *S. Newport*. For *L. monocytogenes* the highest attachment strength was on TH12 (0.42 ± 0.19) while the lowest was on TH1 (0.22 ± 0.06). The average attachment strength of *S. Newport* on all melons was 0.30 ± 0.18 while the average attachment strength for *L. monocytogenes* on all melons was 0.29 ± 0.10 ; the difference between average attachment strengths for the two pathogens was not significant ($P > 0.05$). The results suggest that while certain melon hybrids may have a lower attachment strength than others for one or both tested pathogens, there is no difference in attachment strength between the two pathogens on melons.