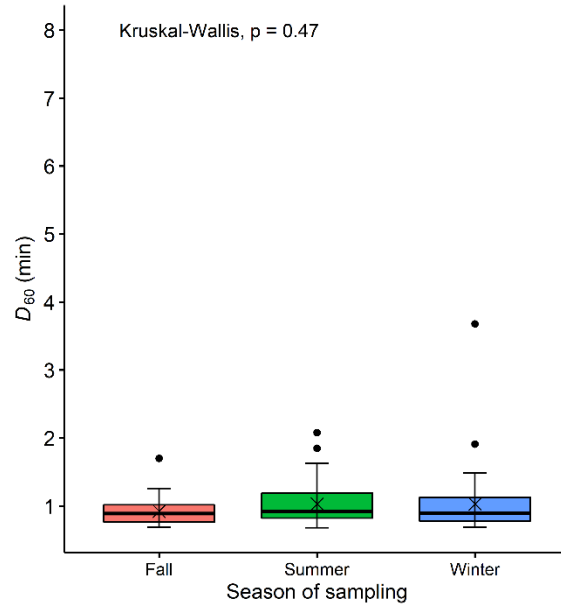


**Figure S1.**  $D_{60^{\circ}\text{C}}$ -values (min) for *E. coli* isolates ( $n=700$ ) recovered from different sources in beef packing plants. Central horizontal lines and “x” marks indicate medians and means, respectively. The isolates included 121, 279, 200 and 100 from hide-on carcasses, hide-removed carcasses, fabrication equipment surfaces, and beef products, respectively.



**Figure S2.**  $D_{60^{\circ}\text{C}}$ -values (min) for *E. coli* isolates (n=121) recovered from hide-on carcasses in different seasons. Central horizontal lines and “x” marks indicate medians and means, respectively. The number of isolates from fall, summer and winter was 34, 42 and 45, respectively.