Documentation for causal analysis checklist:

The idea behind the checklist is based on the fishbone/ Ishikawa diagram. Potential causes are split into the relevant categories: People, Machines/ Tools, Methods, Materials to ensure that all possible areas are considered. As the checklist is ultimately used to determine the type of FLW currently being analysed (so as to determine its starting point in the flow chart), the focus is on the classification of the various causes into “avoidable” and “unavoidable” categories, after determining if the FLW is edible or inedible by humans. This is in line with the FLW taxonomy comprising of the categories Edible Avoidable, Edible Unavoidable and Inedible Unavoidable.

Fishbone diagram categories:

Causes that are people-related are usually avoidable, as such causes can simply be avoided through e.g. encouraging complacent workers to be more focused.

Causes related to machines/ tools are unavoidable, as such causes are usually due to limitations of the machines used and can only be eradicated if e.g. a new machine is bought.

Causes that are due to methods used fall into both unavoidable and avoidable categories, as e.g. an inefficient SOP can be changed and hence is considered an avoidable cause, while the storage system being inappropriate (e.g. temperature range not wide enough) is considered an unavoidable cause which can only be eradicated if e.g. a new storage system is obtained.

Causes that are materials-related are considered unavoidable, as such causes are usually due to inadequate quality of materials supplied, and hence is due to the supplier/material manufacturer and can only be eradicated if e.g. supplier is changed.

Approach:

First, the FLW is determined to be edible or inedible. If it is inedible, it is automatically assigned to the category “Inedible Unavoidable”, since only one category has the ‘inedible’ characteristic. If it is edible, the user is then asked which category (People, Machines, etc) he/she would like to explore first. Based on the category chosen, the corresponding list of causes is shown as a checklist, and the user is tasked with clicking on the causes that are most probable. Finally, the number of unavoidable and avoidable causes are tallied, and the FLW is assigned to the “Edible-X” category having the higher count, where X is “Avoidable” or “Unavoidable”. If the number of unavoidable and avoidable causes ticked are the same, then the FLW is assigned to the “Edible Avoidable” category to ensure the full hierarchal flowchart is traversed by the user and hence all possible methods are considered.