**RECIPE PRE-SCREENING PROCESS**

**PROCESSING STEPS**

**STEP 1: Initialize Default Values**

* Pre-screening Status is initially set to Pass.
* Failure Reason defaults to "PASSED".

**STEP 2: Compute Recipe Age**

* Calculate the recipe age by determining the difference between today’s date and the last updated date.
* Display the results.

**STEP 3: Dye Triangle Check**

* If dye triangle verification is required and relevant conditions are met:
  + For 1 Stage process, check If the first standard and first recipe dye triangle codes do not match, update the failure reason accordingly.
  + For 2 Stages Process, check if both first and second dye triangle codes(recipe and standard) does not match, then indicate failure due to incorrect dye 1 and 2 triangles.
* Display whether the dye triangle is correct or incorrect along with the failure reason.

**STEP 4: General Pre-screening Checks**

* If the dye triangle is correct and other conditions are met:
  + If the recipe is too old and has too few matching dye lots, mark it as a failure.
  + Provide a failure reason based on whether the issue is age or insufficient dye lots.
* If all conditions are met, state that the recipe meets the required criteria.
* Display failure reason only if applicable.

**STEP 5: Color Quality Check**

* If de\_of\_average value is greater than the max\_delta\_E value, then the recipe should be marked as a failure.
* If dl\_of\_average value is greater than the max\_delta\_L value, then the recipe should be marked as a failure.
* If dc\_of\_average value is greater than the max\_delta\_C value, then the recipe should be marked as a failure.
* If dh\_of\_average value is greater than the max\_delta\_H value, then the recipe should be marked as a failure.
* If the standard saved date is missing or the standard saved date is newer than the last updated date, the recipe should be marked as a failure due to missing or the recipe needs to be updated.

**STEP 6: Zone Classification**

* Determine the zone based on ΔE and provide result.
  + **Zone 1:** ΔE < 0.65 (Perfect match)
  + **Zone 2:** 0.65 ≤ ΔE < 1 (Acceptable variation)
  + **Zone 3:** 1 ≤ ΔE < 1.2 (Near tolerance limits, needs improvement)
  + **Zone 4:** ΔE ≥ 1.2 (Too much deviation, requires correction)

List multiple failure reasons if applicable but do not update them until resolved.