Profiting from Reducing Food and Associated Wastes

Workbook

Provided as part of the Circular Food Innovation Lab

Acknowledgements

The February 15, 2023 workshop, **From Supply Chain to Value Chain: *How to increase economic resiliency for your food business,*** was held as part of the Circular Food Innovation Lab (CFIL), a project to advance Vancouver's efforts to reduce waste and increase food circularity along our food supply chain. CFIL business collaborators and Vancouver food producers, distributors, processors, restaurants, cafés, grocers, as well as other food businesses were invited to participate in the workshop along with members of their supply chain.

The Circular Food Innovation Lab partners would especially like to thank workshop facilitators,

- Martin Gooch from Value Chain Management International
- Keith Renfrey from CSH Projects

And of course, all of the food businesses that participated in the workshop and shared their expertise and creativity to explore and identify promising avenues to reduce waste in their operations.

To learn more about the Circular Food Innovation Lab
go to the **City of Vancouver webpage.**

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Introduction

The purpose of this workbook is to show how you can increase your business's profitability by reducing waste. Examples of waste include lost products (shrink), energy, labour, packaging, and transport. VCMI's work with the North American, European and Australasian food industries shows that businesses can typically improve their financial performance by 10 plus percent by implementing simple practices that lead to more effective processes. Consider the scale of opportunities available to your businesses by addressing facts such as waste typically accounts for 20 percent of all costs incurred. In the retail and processing sectors, reducing waste by one percent typically results in the equivalent of a four percent or more increase in revenue. Improvements in quality and customer service that flow from improved processes also enable businesses to increase sales and margins.

Most enterprises have processes in need of improvement — either because they are informal and therefore performed inconsistently, and/or they create rework or shrink, which costs time and money. Process improvement initiatives work and deliver good results when …

- You adopt a project approach to each improvement opportunity
- Senior management commit to championing the cause
- Subject matter experts are engaged as a team
- Teams, comprising individuals from across the business, are allocated the time and resources to work on the project
- Decisions are based on data and facts, not opinions and assumptions
- Objective appropriate methodology and tools are used
- You don't try to "boil the ocean"

This workbook will enable you to begin improving your processes and secure the financial benefits described above. Reflecting the **Plan Do Check Act (PDCA)** concept described on the next page, the workbook is divided into six easy to follow steps. Ideally, each project should last no longer than four to six weeks, commencing with an initial two to three-hour meeting to complete at least steps one to three. After the first meeting, teams will meet for 1 to 1.5 hours per week, with members sometimes tasked to complete assignments between meetings.

The tools contained in this workbook are intended to be applied to address basic process problems that can be resolved in a relatively short time span and to deliver measurable results without the need for capital investment. Ensuring that your efforts translate into higher margins and profits is aided by the ability to accurately target "hot spots," then monitor progress. The workbook therefore presents methodologies for determining where to focus attention, identify root causes, monitor progress, and implement sustainable solutions.

Blank templates are provided to record what occurs during the workshop, then help you translate what you learn to your own business. Examples of completed templates are also provided.

Plan Do Check Act (PDCA)

The Plan Do Check Act (PDCA) cycle shown below provides a disciplined process of testing small, carefully designed changes, the impact of which is evaluated before the changes are rolled out across the company and/or more ambitious efforts are undertaken.
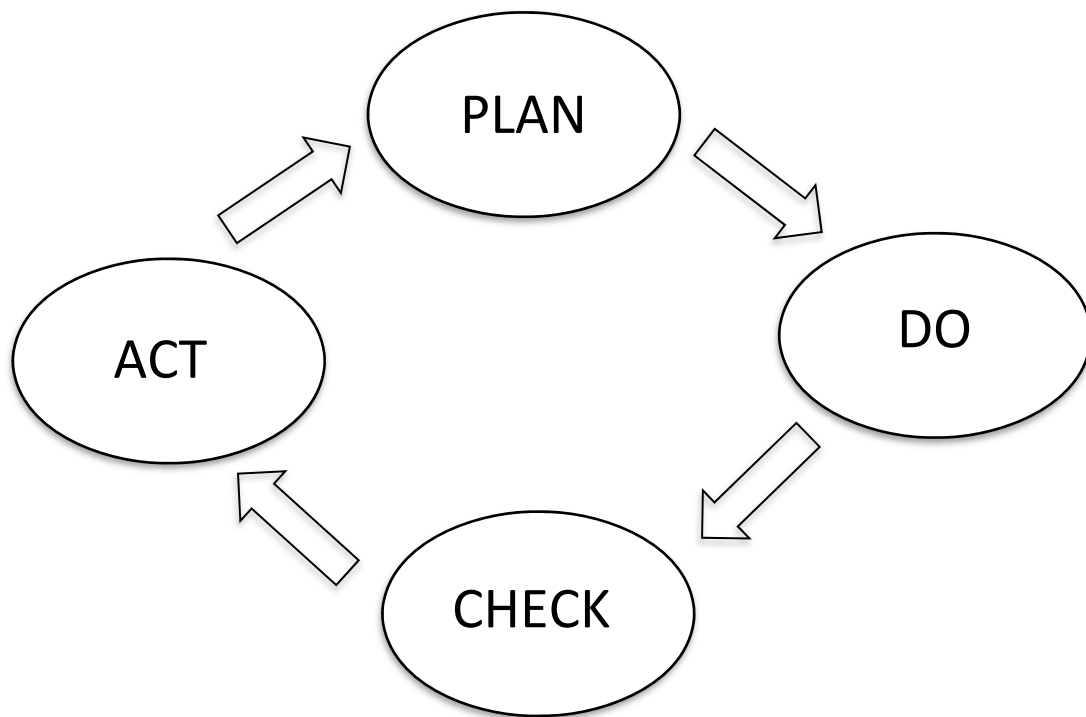
The workbook's structure is designed to reflect the iterating basis of the following PDCA process:

Plan: Determine improvement opportunities, establish measurable objectives and processes that you believe will enable targeted improvements in performance to be achieved.

Do: The disciplined approaches contained in the workbook are designed to ensure that a small scale pilot initiative is implemented effectively, and the monitoring process produces insights that enable you to verify (or not) the robustness and suitability of your changes before expanding them across your business.

Check: Investigate the results of changes made by analyzing data gathered during the pilot and listening to those involved in implementing the changes or those affected by the changes (incl. suppliers, operators, customers). If outcomes did not meet your expectations or produced inconsistent results, investigate why by conducting a cause and effect analysis.

Act: Monitor the rollout process by measuring performance and supervising the implementation of new processes. Regularly enquire about the experiences of those responsible for implementing or those affected by the changes.

Getting Started

The steps laid out below will help you to improve your business's financial performance by reducing food and associated wastes/inefficiencies. Before you dive into steps 1 – 5 below:

- Review available information to identify potential opportunities that warrant investigation.
- Secure support from senior management for you to commit the time required to complete a pilot initiative.
- Form a project team. It is better to form a small team from different areas of the business who you believe will work well together and contribute different experiences and perspectives, rather than establish a large "town hall" group.
- Appoint an effective facilitator to lead the initiative. Effective facilitators have good listening and communication skills, are respected by their colleagues, and work to deadlines.

1. In addition to this workbook, compile a toolkit of materials that are common to most offices and available from any office supply store:
   a. Seven flip chart sheets. *Alternatively, print each blank template on A1 sized paper.*
   b. Post-It notes
   c. Coloured pens and markers
   d. Roll of masking tape

2. Tape the seven flip chart sheets *(or A1 templates)* to a wall from left to right in the order listed below. If possible, leave the charts taped to the wall until the project is completed.
   a. Project charter
   b. Voice of the customer
   c. Current state process map
   d. Cause and effect diagram
   e. Ideas board
   f. Idea sorter
   g. Action log

3. At each meeting, give everyone a few Post-It notes and a marker.

4. The facilitator's responsibility is to
   a. Manage the tools
   b. Keep the process on track
   c. Communicate the project to management and colleagues
   d. Ensure everyone contributes
   e. Prevent anyone from dominating the discussion

5. From here – follow the steps in the workbook and use the above described toolkit where indicated.

Step 1: Problem Identification: Project Charter

Time to complete ~ one hour

Objective: • Ensure that your team agrees on the problem that it is seeking to resolve and that the problem can be documented in terms of desired measurable improvements (how much), by when improvements will be achieved, and the project's scope. Remember to keep the project bite sized.
An example of a project charter is shown on the next page. To develop a project charter: 1. List the current undesirable effects (UDEs) that you want to eliminate or significantly reduce. Invite participants to list their thoughts on Post-Its (one UDE per Post-It), then group the UDEs on the Project Charter poster provided and summarize the UDEs into one or more problem statements. 2. Write out the problem statement that the team is agreed upon — clearly and concisely. 3. Set a measurable objective. Make it a stretch goal, as it is better to not fully meet a stretch goal than slightly exceed a small goal. After all, you want this project to make a difference. 4. Agree and record a narrow scope. It is better to fix a problem on one production line, then copy and paste the solution to other lines, than try to fix many different variants of the same problem. This approach helps you achieve a meaningful result quickly and not get bogged down in minutia. 5. Identify process performance measures, if you can. For example, it could be cycle time, percent of defects, number of units lost, or number of rejections. 6. If you have a unit of measure and know from the objective what the target improvement level will be, then estimate what the target business benefits (usually $) are from this project.
If possible: • Try and ascertain an approximation of how large the problem is. This can be an estimate or be based on historical data. From here, determine by how much you want to reduce the extent of the problem. • Visit the workspace and review performance data when developing a project charter. There is no substitute for firsthand insights and benchmark data.
Be careful: • Make sure the problem statement concisely lists the problem, not the symptoms. An analogy of a problem versus symptom is: *My car's lights-on warning buzzer failed; hence I left the lights on, which deadened the battery and the car would not start.* A dead battery is the symptom. The problem is "*I have a failed warning buzzer.*" • If the UDEs indicate there is potentially more than one problem statement, make each problem statement a separate project and determine the logical sequence in which to execute the projects. • Make sure the scope of the project is such that improvements can be designed and implemented in a reasonable period of time, e.g. four weeks. Don't allow people to keep expanding the project scope.

Problem Identification (Project Charter): EXAMPLE

CURRENT UNDESIRABLE EFFECTS • At least one quality issue on receival at customer's DC each week • Variable quality, with incidences of breakdown and mold • Little (if any) prior notice of quality or supply issues • Rejections • Regrading and repackaging of rejected loads • Threatened with delisting
PROBLEM STATEMENT Variation in fruit quality arriving from growers, along with timing of delivery/receival at packing facility, is preventing us from fully meeting customer expectations, resulting in lost revenue and increased costs. We need to identify root causes of issues that impact our ability to get it right first time, every time, throughout the supply/value chain.
OBJECTIVE Reduce incidence of blueberries packed at this plant failing to meet customer's quality and delivery requirements by 50% in 3 months or less.
SCOPE Blueberries grown in British Columbia and imported from elsewhere, then supplied to: • Customer A, packaged in 170g and ½ pint • Customer B, packaged in 1 pint and 5kg

PROCESS OUTPUT MEASURE	POTENTIAL $AVINGS
1. Rejections 2. QA complaints/incidences 3. Credit claims 4. Late deliveries	4 grading/packing people x 16 hours x $12/hr = $40,000 1 QA inspector x 6 hours x $25/hr = $7,800 3 operations and finance staff x 6 hours x av. $35/hr = $32,800 Product shrink = $85,000 Packaging shrink = $22,000 **Total potential savings: $187,600**
Core project team members • Procurement manager • Quality assurance manager • Plant manager • Account manager	**Project team leader** • Plant manager
Process owner • Quality assurance manager	**Sponsoring manager** • Vice president operations

Project Identification (Charter): TEMPLATE

CURRENT UNDESIRABLE EFFECTS

PROBLEM STATEMENT

OBJECTIVE

SCOPE

PROCESS OUTPUT MEASURE	POTENTIAL $AVINGS

Step 2: Voice of the Customer

Time to complete – about an hour

2.1 Objective
• Ensure that your team understands: 1) who the process customers are, 2) the product and service attributes that they deem critical to quality (CTQ), 3) how satisfied they are with your organization's performance, and 4) ensure effective communication. In so doing, as you work through subsequent steps in this workbook, you can better identify and manage the inputs and outputs that determine your ability to meet customers' CTQ requirements — resulting in greater efficiency, less waste and enhanced performance.
2.3 Completion guide
An example of a "critical to" (CT) tree is provided. This exercise is best accomplished using Post-It notes and a flip chart or white board. Engage your customer in the process. The customer could be a functional department within your organization (internal or a separate external) business. To develop a CT tree:
1. Have your customer, at a high level (Tier 1), identify the attributes of the process output (the product or service) that are important to them. Quality, cost and timeliness are good starting points.
2. Next, have them drill down at least one more layer (Tier 2 and 3) to add more details as to what those attributes look like. Examples of qualitative attributes are no browning in lettuce, no bruising in fruit, or no pale colour in meat. Examples of quantitative attributes are shelf life in lettuce, sweetness in fruit (brix test), or tenderness in meat (shear test).
3. Now have the customer(s) rate each attribute in terms of criticality as follows:
a. Critical = a deal breaker if this attribute is not provided
b. Important = expected that this attribute will be provided
c. Nice to have = not expected, but may give you the edge over the competition
4. Have the customer rate current performance in relation to expectations or best in class, using a scale of 0-5. (0 = noticeably worse than; 3 = equal to; 5 = noticeably better than)
a. Ask the customer to describe and (if possible) provide evidence for the reasoning behind their rating of your performance on each attribute.
2.4 If possible
• Listen to the perspectives and experiences of those involved in performing or affected by processes associated with the problems that you are seeking to address.
▪ Determine if the CTQs and their comparative criticality are widely understood.
▪ On completing this step, review the Project Charter to determine whether any revisions are required prior to continuing on to subsequent steps.
2.5 Be careful
• Not to make assumptions as to what customers need or the importance of those needs.
• Not to automatically assume that a long-detailed description of an issue experienced by the customer relates to a critical attribute (CTQ) or a gap in performance. Use numbers.
• Acknowledge that critical items are deal breakers — if not satisfied, the customer may go elsewhere. Important items must not be overlooked — if enough are not satisfied, the customer may go elsewhere. 'Nice to have' items are an opportunity to delight the customer and cause them to equate more value to your product or service.
• Recognize the effect that your customer's experiences could have on your business.

CT Tree: Example


```
                          ┌──────────────────┐
                          │   Blueberries    │
                          │  170g clamshell  │
                          └──────────────────┘
```

Tier 1

Shelf Appeal	Quality	Contribution to category

Tier 2

Packaging design *(Important)*	Consistent ripe colour *(Critical)*	Consistent sizing in grade *(Important)*		20+ days shelf-life *(Important)*	Price/margin *(Critical)*	Differentiator *(Important)*

Tier 3

Berries easily visible *(Important)*	Visible waxy bloom *(Critical)*		No wilted berries *(Critical)*	Min 2% of fruit not fully ripe *(Critical)*	Eating quality *(Critical)*		Consistent high value *(Important)*

Tier 3

No crushed, split, leaking berries *(Critical)*	Brix 10> *(Important)*

CT Tree: Template

Tier 1

Tier 2

Tier 3

Step 3: Process Mapping

Time to complete – 30 to 60 plus minutes

Objective:
- Understand the details of how the current processes associated with the problem statement actually work and how well they address the CTQ attributes identified in Step 2, especially those attributes that customers rated as critical and important.
- This will enable you to identify: 1) waste [aka TIM WOOD[1]], 2) non-value-added process steps, and 3) potential causes of the problem(s) identified in Step 1.

An example of a process map is shown on the next page. To develop a process map:
1. List the activity or step that triggers the process.
2. Write down the next few steps on Post-Its, then arrange the Post-Its on the poster in the order that they occur.
3. Repeat until the final step or output is reached.
4. If there appears to be more than one opinion as to how the process is performed, there is likely at least two variants of the process. This is an indication that the process is performed based on "tribal knowledge," rather than a robust process.
5. Evaluate each step for its contribution to TIM WOOD, by marking each process with the corresponding TIM WOOD letter, then discussing to see if the identified waste can be significantly reduced or eliminated.
6. Examine if this mapping activity has identified any obvious root causes of the problem, or whether the team has identified any potential solutions? If so for either, make a note of any proposed actions for review during Phase 6 (Top Ten Actions).

If possible:
- During the mapping process, visit workspaces to observe firsthand how operations are performed and investigate whether discrepancies exist between documents that describe how processes should be performed and how processes are performed.
- Listen to the perspectives and experiences of those involved in performing or affected by processes associated with the problems that you are seeking to address.
- Identify TIM WOOD:
  T = Unnecessary **T**ransportation
  I = Unnecessary **I**nventory – required as a way of buffering against defects or shrink
  M = Unnecessary **M**otion or **M**ovement by people
  W = Unnecessary **W**aiting or delays
  O = **O**ver Producing – making or producing more than required. Leads to Inventory
  O = **O**ver Processing – making it better than it needs to be
  D = **D**efects of any kind

Be careful:
- Some non-value-added steps may be necessary to enable value to be performed — such as unloading or unpacking raw material.

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[1] **TIM WOOD** is a useful acronym for remembering factors that commonly lead to waste and should be considered during any continual improvement initiative: **T**ransport; **I**nventory; **M**otion/movement; **W**aiting; **O**ver processing; **O**ver production; **D**efects.

Map of the Current Process: EXAMPLE

STARTING ACTIVITY

Harvest

M, W

Fruit placed in bulk bins

M

Bulk bins loaded onto trailer

Bulk bins transported to packing shed M

Bulk bins placed in coolroom

I, W, T

Bulk bins moved to packing line

M

Fruit emptied onto line

W

Fruit washed

Fruit unloaded at distributor

M, W

Fruit trans-ported to distributor

T, D

Fruit loaded onto truck

M, W

Fruit sold

Packed fruit held in coolroom

M, I, D

Packed fruit placed on skids

M, W, D

Fruit packed

M, W, D

Fruit graded

M, W, D, O

Fruit dried

Fruit held in distributor coolroom

I, M

ENDING OUTPUT

Fruit sold

Fruit loaded onto truck

M, W

Fruit trans-ported to retail store

Fruit unloaded at retail store

M, W

Fruit held in retail coolroom

I

Fruit put on shelf

M, I, D

Fruit displayed on shelf

I, M

Consumer chooses fruit

D

Consumer buys fruit, takes it home

KEY TO IDENTIFIED TIM WOOD

- **T = Transport**
- **I = Inventory**
- **M = Motion**

- **W = Waiting**
- **O = Overproducing**
- **O = Over processing**
- **D = Defects**

Map of the Current Process: TEMPLATE

STARTING ACTIVITY
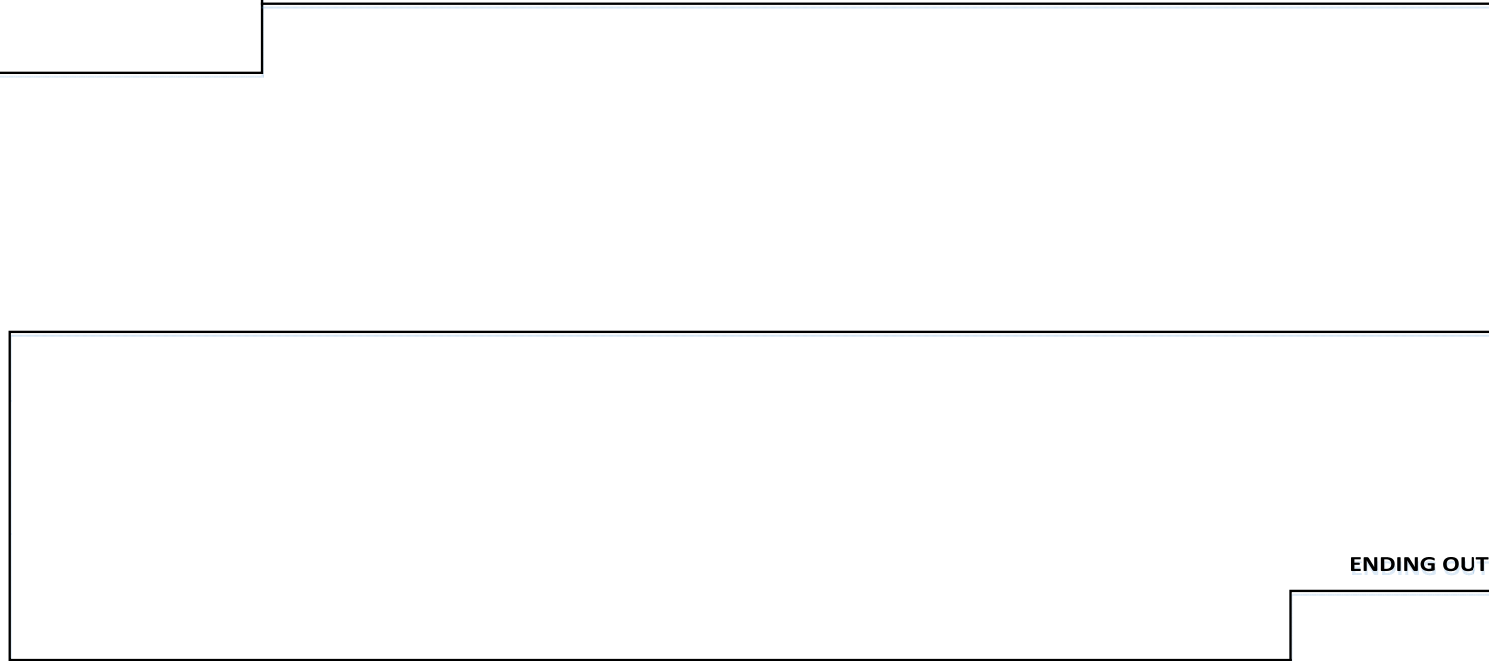
ENDING OUTPUT

TIM WOOD KEY	• T = Transport • I = Inventory • M = Motion	• W = Waiting • O = Overproducing • O = Over processing • D = Defects

Step 4: The Cause and Effect (Fishbone) Diagram

Time to complete – 30 to 40 minutes

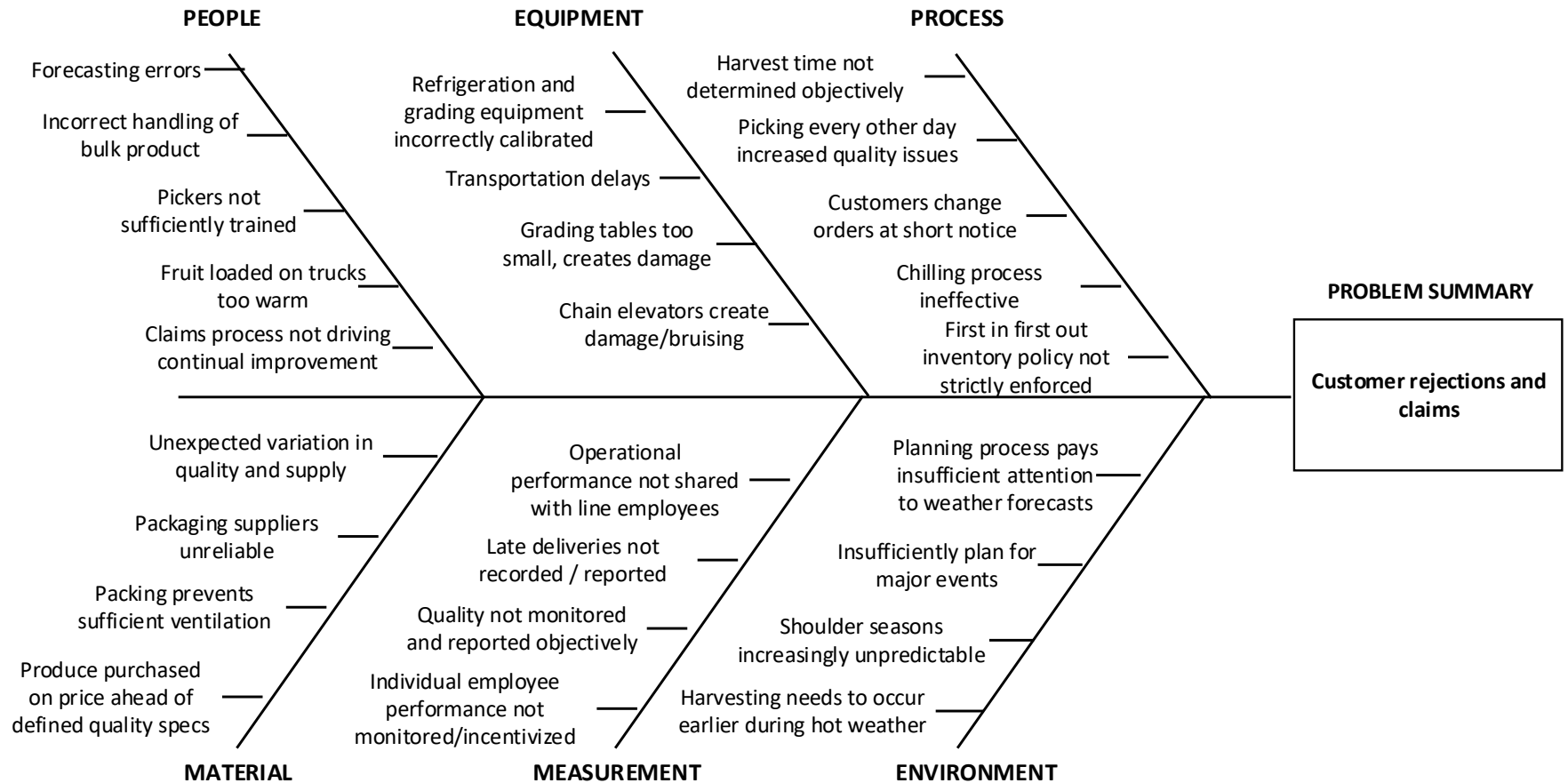| |
|---|
| **Objective:** |
| • Identify potential root causes of the problem that need to be addressed, or where further investigation is required, to achieve improvements described in your project charter (Step 1). |
| An example of a cause and effect diagram and a blank template are shown on the next pages. To create a cause and effect (fishbone) diagram:

 1. Assign a facilitator at the Cause and Effect poster.
 2. Write a short summary of the problem statement in the "Problem Summary" box at the head of the fish.
 3. Each participant will call out as many potential causes of the problem as they can. *There are no wrong ideas. What initially sounds like a flippant or unimportant comment could cause informed discussion, leading to meaningful outcomes*.
 4. The facilitator will capture each by writing it on a Post-It, which is placed next to the appropriate "bone" of the fish. Accuracy is not paramount.
 5. For each potential cause listed, ask "why" this is a potential cause. List the reason(s) offered, then ask "why" again for any new/additional reasons offered.
 6. Continue asking "why" until the team reaches a definitive potential root cause. (This technique typically involves asking "why" five times, and is aptly referred to as the "5 Whys.")
 7. Once there is a natural end to the flow of ideas, and reasons why, ask each participant to write three items they would act on or investigate first — one Post-It for each idea.
 8. Gather and group all the "action" Post-Its, then decide on the priority items that will be acted on or investigated.
 9. Make a note of each action on the Top Ten Actions Poster (shown in Step 5a). A priority number for each proposed action will be assigned later. |
| If possible:
 • Do not rule out an idea because only one person thought it was significant. For example, the maintenance person may be the only participant that is aware of an equipment performance issue that contributes to the problem.
 • If someone offers lack of training as a potential cause and others agree, you have a quick win. Training is required and should be provided ASAP. |
| Be careful:
 • Don't be dismissive of unusual ideas. Remember all ideas are being offered as _potential_ causes for investigation.
 • Don't let the exercise drag on for too long; there is usually a natural conclusion to the flow of ideas. |

CAUSE AND EFFECT: EXAMPLE

PEOPLE

Forecasting errors

Incorrect handling of bulk product

Pickers not sufficiently trained

Fruit loaded on trucks too warm

Claims process not driving continual improvement

EQUIPMENT

Refrigeration and grading equipment incorrectly calibrated

Transportation delays

Grading tables too small, creates damage

Chain elevators create damage/bruising

PROCESS

Harvest time not determined objectively

Picking every other day increased quality issues

Customers change orders at short notice

Chilling process ineffective

First in first out inventory policy not strictly enforced

PROBLEM SUMMARY

Customer rejections and claims

MATERIAL

Unexpected variation in quality and supply

Packaging suppliers unreliable

Packing prevents sufficient ventilation

Produce purchased on price ahead of defined quality specs

MEASUREMENT

Operational performance not shared with line employees

Late deliveries not recorded / reported

Quality not monitored and reported objectively

Individual employee performance not monitored/incentivized

ENVIRONMENT

Planning process pays insufficient attention to weather forecasts

Insufficiently plan for major events

Shoulder seasons increasingly unpredictable

Harvesting needs to occur earlier during hot weather

CAUSE AND EFFECT: TEMPLATE

PEOPLE

EQUIPMENT

PROCESS

PROBLEM SUMMARY

MATERIAL

MEASUREMENT

ENVIRONMENT
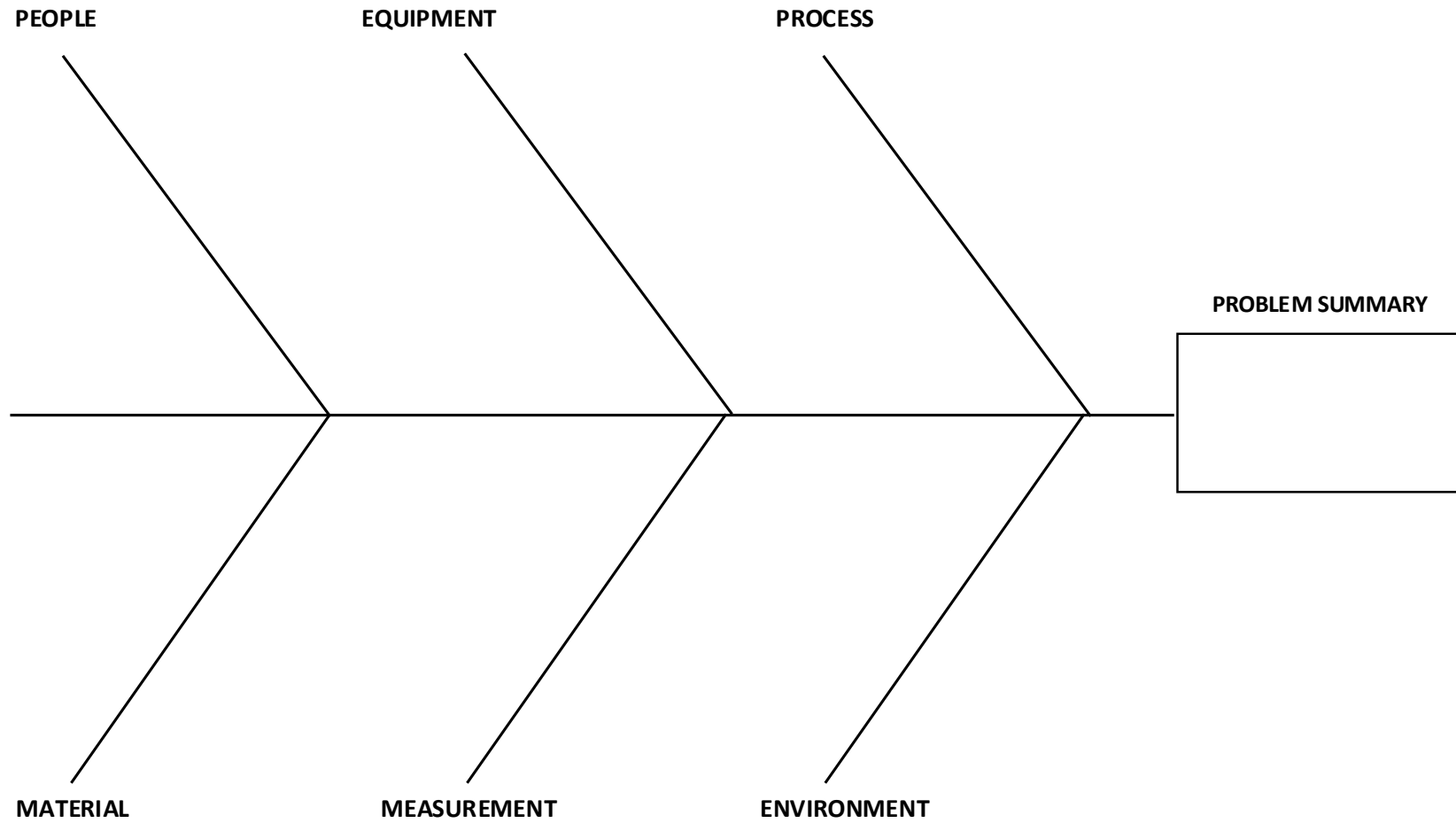
Step 5a: Capturing *(worthwhile)* Opportunities pt.1: The Ideas Board

Time to complete – 20 to 30 minutes

Objective: • Having understood the process(es) associated with the problem and potential causes of the problem, you are now ready to start developing ideas that will solve the problem, eliminate the UDEs and achieve your improvement objectives.
An example of an Ideas Board and blank template is shown on the next two pages. To complete an Ideas Board: 1. Aided by the process map and cause and effect diagram, invite each participant to list their ideas for solving the problem and improving the process. Use one Post-It for each idea.   2. Place each Post-It on the Ideas Board.   3. Once all ideas have been placed on the board, group similar ideas together.   4. If an additional Post-It would summarize the group of ideas better than currently conveyed, replace the group of ideas with one succinct Post-It.
If possible: • Get the entire team engaged by giving everyone Post-It notes to complete. (Suggestion: provide three Post-Its to each person at the start of this step.)
Be careful: • Don't allow ideas to be limited to just those appearing on or developed during the process map and cause and effect diagram activities.   • Allow enough time for engagement, though don't let the exercise drag on.   • Manage discussions on implementing ideas; these insights will be valuable for the next step in your improvement process.

IDEAS BOARD: EXAMPLE

|	
1. INTRODUCE SCORECARDS THAT RATE SUPPLIERS ON DELIVERY IN FULL, TO QUALITY, ON TIME (DFQOT)	2. MEET AHEAD OF EACH SHIFT TO SHARE YESTERDAY'S PERFORMANCE AND TODAY'S TARGET
3. IMPROVE HARVESTING PRACTICES, INCLUDING TRAINING AND MONITORING OF PICKERS	4. REORGANIZE THE LINE TO IMPROVE QUALITY AND INCREASE CAPACITY BY IMPROVING FLOW
5. DOCUMENT THEN SHARE COLD CHAIN PROCESS CONTROLS AND REPORTING PRACTICES	6. IN COLLABORATION WITH CUSTOMERS, IMPROVE PLANNING, ORDERING AND DISPATCH PROCESS
7. DETERMINE TIMING OF HARVEST, USING WEATHER REPORTS AND OBJECTIVE MEASURES	8. REPORT REJECTIONS / CLAIMS ACROSS FUNCTIONS TO ESTABLISH ROOT CAUSE AND IMPLEMENT REMEDIAL ACTIONS
9. REDESIGN PACKAGING TO IMPROVE VENTILATION, SHELF LIFE	10. CHANGE PACKAGING SUPPLIER

IDEAS BOARD: TEMPLATE

IDEAS BOARD
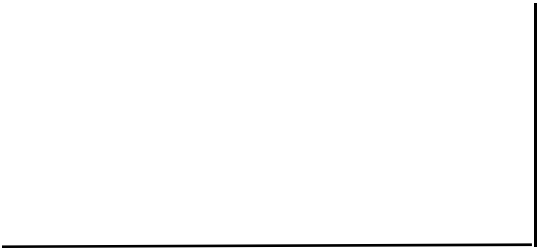
Step 5b: Capturing *(worthwhile)* Opportunities pt.2: The Ideas Sorter

Time to complete = 30 to 40 minutes

Objective: • Arrive at a set of ideas that will deliver meaningful results and can be implemented quickly and easily.   • Avoid ideas that will be difficult to implement or will deliver minimal improvement.

How to populate the Ideas Sorter:
 1) Pick off one complete idea at a time from the Ideas Board.
 2) With some discussion, put it in the most logical box on the sorter poster:
     • **Big rewards/big effort = do later**
        o Example: reorganizing the plant layout may be an obvious improvement, but the downtime and money required is significant
     • **Big rewards/low effort = do now**
        o Example: eliminating TIM WOOD, documenting the process, providing training and recording the results achieved through improved processes
        o Scheduling regular preventative maintenance of process equipment
     • **Low reward/big effort = park**
        o Example: repainting the plant floor and/or repainting the machinery
     • **Some reward/low effort = do when we can**
        o Example: sharing this improvement methodology with suppliers

If possible: • Present the ideas and proposed actions (Step 6) to management.   • Have management advise on any items that the team cannot decide upon, or will require executive support to implement.
Be careful: • Not to lose track of the objective and scope of the project.

IDEAS SORTER

BIG REWARD / BIG EFFORT **DO LATER**	**BIG REWARD / LOW EFFORT** **DO NOW**
3b. Improve growers harvesting practices in other regions, including training and monitoring of pickers. 6. In collaboration with customers, improve planning, ordering and dispatch process. 7. Determine timing of harvest, using weather reports and objective measures.	1. Introduce scorecards that rate suppliers on delivery in full, to quality, on time (DFQOT). 2. Meet ahead of shift to share yesterday's performance and today's target. 3a. Improve BC growers harvesting practices, including training and monitoring of pickers[2] 5. Document than share cold chain process controls and reporting practices 8. Report rejections/claims across functions to establish root cause and implement remedial actions.
LOW REWARD / BIG EFFORT **PARK**	**SOME REWARD / LOW EFFORT** **DO WHEN WE CAN**
9. Redesign packaging to improve ventilation, shelf life. 10. Change packaging supplier.	4. Reorganize the line to improve quality and increase capacity by improving flow.

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[2] The improvement of offshore growing and harvesting practices may produce significant benefits, though is likely a more challenging and costly endeavour than working with BC growers. It has therefore been categorized as a "Big Reward / Big Effort."

IDEAS SORTER - TEMPLATE

BIG REWARD / BIG EFFORT DO LATER	**BIG REWARD / LOW EFFORT** DO NOW
LOW REWARD / BIG EFFORT PARK	**SOME REWARD / LOW EFFORT** DO WHEN WE CAN

Step 6: Implementing Improvements: The Action Log

Time to complete -20 to 30 minutes

Objective: - From the Ideas Sorter, as well as any items noted from the process map and cause and effect diagram activities, list up to 10 key actions that should be undertaken to achieve the desired outcomes identified in the Project Charter (step #1).   - If possible, complete the action, then report back on the process and any outcomes achieved next time the team meets.
An Action Log template is shown on the next page. To populate the Action Log: - List together related ideas posted on the Idea Sorter.   - Write a concise statement of the action required to implement the ideas.   - For each activity, identify the person who will be responsible for the action's completion (the owner).   - For each action, have the owner identify a date when they will have the action completed.
If possible: - If there are more than 10 actions to be completed, add another page.   - Ensure to set completion dates that are achievable. At the same time, ensure that timelines are not too generous, resulting in a lack of urgency and unfocused efforts.
Be careful: - Not to lump several actions into one.   - Not to leave one person to do all the work.   - Not to appoint action owners who do not possess the authority, knowledge or respect required to complete.   Action owners are responsible for ensuring that completion dates are met or advising the team of completion slippages in a timely and accurate manner.

ACTION LOG: EXAMPLE

TOP TEN+ ACTIONS (REQUIRED PLANNING & RESOURCES)

Idea #	ACTION	OWNER	BY WHEN	STATUS
1	Establish performance measures to use in supplier scorecards and how to measure/report.	QA Manager	End of month	
1	Establish reporting system to record expected versus actual receival times, along with amount received and issues observed at receival.	Operations Manager	End of month	
1	Communicate forthcoming report cards to suppliers; identify any performance measures that they would like to see included.	Field Manager	End of month	
1	Determine equitable financial penalty system for poor performance on quality and delivery, then propose method/timing of introduction.	Finance Manager	Within 2 months	
2	Design reporting system and process; notify line staff when pre-shift meetings will commence.	Line supervisor	End of month	
2	Arrange materials required to ensure effective pre-shift meetings.	Operations Manager	End of month	
3	Document growers/suppliers current harvesting practices, including how staff are trained.	Field Manager	Within 3 months	
5	Document standard operating procedures (SOP) of cold chain practices.	Operations Manager, QA Manager	End of month	
5	Prepare system for recording adherence to cold chain SOP.	Operations Manager, QA Manager	Within 2 months	
8	Document historical benchmark of rejections and claims.	QA Manager	Within 2 months	
8	Calculate financial implications of rejections and claims according to customer, cause, severity, and required remedial action.	Finance Manager	Within 2 months	
8	Prepare process for communicating rejections/ claims across functions and with suppliers.	QA Manager	Within 2 months	
8	Design continual improvement program, including timing and method of implementation.	QA Manager, Operations Manager, Field Manager	Within 3 months	

ACTION LOG: TEMPLATE

TOP TEN ACTIONS (REQUIRED PLANNING & RESOURCES)

#	IDEA	ACTION	OWNER	BY WHEN	STATUS
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					