
Overview

This standard is about the skills and knowledge needed to apply Taguchi linear graphs as part of your organisation's drive to increase the effectiveness and productivity of food and drink operations. This is important in the achievement of excellence and the success of manufacture, processing and supply across the food and drink supply chain.

You will need to apply and understand the methodology and principles of Taguchi linear graphs within improvement projects. You will need to know how to present findings of Taguchi linear graph reports to relevant people within the organisation, including management colleagues. You will need to know how to comply with your company policy for improvement, take responsibility for your actions, and refer any issues outside of the limit of your authority to others.

This standard is for you if you work in food and drink operations including, manufacturing, processing, packing or supply chain activities. You may have responsibilities for aspects of organisational improvement in a team leadership or management role.

Performance criteria

You must be able to:

Prepare for reporting

1. confirm and agree the defined scope of reporting with the relevant personnel
2. check and confirm that Taguchi linear graphs are most appropriate to support the reporting required with the relevant personnel
3. obtain information, documentation and resources necessary to support the reporting in accordance with procedures
4. communicate the purpose of the reporting to the relevant personnel

Carry out reporting to support improvement activity

5. use approved methodology to apply the Taguchi linear graph reporting and collect performance data on work activities in accordance with the improvement plan
6. analyse and evaluate performance data in accordance with the improvement plan

Report improvement opportunities

7. present findings of the Taguchi linear graph report to the relevant personnel
8. make recommendations about improvement opportunities and targets resulting from the report findings to the relevant personnel

Knowledge and understanding

You need to know and understand:

1. the organisation's improvement vision, strategy, objectives and the reasons for implementation of improvement programmes
2. how the health, safety and hygiene requirements of a work area can influence the process of analysis
3. the food and drink operational activity that is being reported
4. what is meant by terms: fold over, confounded, alias
5. how to produce Taguchi linear graph designs for a range of arrays
6. what is Alpha risk and Beta risk
7. what is a population and a sample
8. the calculation of suitable sample sizes
9. why we need to use Taguchi linear graph experimental design
10. how Taguchi linear graph experimental design is used in a Six Sigma improvement projects
11. how Taguchi linear graph experiments are conducted
12. how to calculate mean, median, mode, standard deviation, range and variance
13. the calculation and graphical display of main effects and interactions
14. how suitable optimal conditions can be identified
15. the creation of a Taguchi linear graph reports, and the information they should contain
16. levels of authority linked to problem resolution
17. how to interpret and evaluate data
18. how to present report findings
19. how to make recommendations about improvement opportunities and targets

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