

Workflow: Packhouse Management

Toolkit 4.10

Sustainability and Energy Use

target audience

Packhouse managers, operations managers, systems managers.

what it is

The topic of sustainability includes the protection of the environment, the sustainable use of resources, compliant use of dangerous substances and chemicals, management of waste, and in particular the sustainable use of scarce resources.

Sustainability and environmental issues most important to packhouses are:

- Energy use.
- Water use.
- Wastewater management.
- Chemicals.
- Waste products.
- Reducing the carbon footprint of the operation.
- The sustainability improvements in the whole supply/value chain.

why it is important

Apart from the ethical imperative related to the sustainable management of resources and waste, sustainability is important for the following reasons:

- **Regulatory compliance** – National and international legislation related to sustainability, environmental protection, and the reduction of green-house gas emissions (nitrous oxide, methane, carbon monoxide and dioxide) is becoming more demanding.
- **Client requirements** – Target markets and sectors (e.g., retail – see the [BRC Global Standard](#)) are broadening their audit requirements to include issues related to sustainability, including reporting on energy and water use, the management of waste, recycling, the reduction of the carbon footprint, the sustainable management/sourcing of raw materials and materials, and the management of chemicals and pesticides. Compliance to these requirements is increasingly becoming non-negotiable.
- **Economy and cost** – Improving sustainability incurs both costs and financial benefits to the business. It is important that the business can minimise the cost of compliance to sustainability

requirements and maximise the financial benefit, both short and long term, of investing in and managing sustainability.

Other benefits of actively improving your sustainability include:

- Better management of risk.
- Enhancing and protecting your and your industry's reputation - The South African citrus industry is under tremendous pressure to protect its access to key markets, with some of these markets actively increasing the barriers to entry. Your ability to comply feeds into your regional and national reputation.
- Access to finance – Recently, there is increasing focus on environmentally friendly investing, and the strength of your sustainability strategy and programme improves your ability to satisfy some of these investing or funding criteria.
- Organisational capability and skills development – The ability to integrate sustainable practices and processes into your normal operations develops the necessary knowledge, skills, and competence. This provides development opportunities for employees and enhances skills retention and motivation.

success factors

- **Organisational capacity and best practice** – A primary success factor is an organisation that already has the organisational and best practice foundations in place. These relate to your management practices, teamwork, visual management, 5S (neatness and discipline) etc. Without these in place it is unlikely that you will give attention to sustainability.
- **Certification and accreditation** – Clarity of all the areas of compliance, whether required by legislation, municipal bylaws, regulation within target markets, accreditation by key bodies and clients etc.
- **Administrative excellence, data management, and reporting** – Measurement is key to managing your status and progress regarding sustainability. Key success factors include:
 - The administrative capacity to capture data and produce reports – Ensuring that accountable and skilled people capture the required data and produce reports as and when required.
 - A system to capture data and produce reports – You must have the means and the system to capture the data. Ideally, this should be integrated into your standard work processes.
 - Clarity on what data needs to be captured – Understanding what data must be captured, e.g., you may be required to demonstrate that you are systematically reducing greenhouse gas emissions and your carbon footprint. Are you collecting the data that will enable you to report on both the status and the trend?
- **Energy efficiency** – Energy is becoming more expensive, also relative to other operating costs. Key factors in becoming more energy efficient are:
 - The efficiency of your operation – Are your plant, your machinery, and your processes as efficient and maintained as possible?

- Your energy mix – Are you using an optimal mix of energy sources, i.e., the electrical grid, solar, wind, hydro-electric, diesel, gas? Packhouses have an enormous roof area which can be used to install solar power and capture rainwater.
- **Water management** – Water is a scarce resource. It is important to manage and measure water use meticulously. This includes your ability to recycle water, and the compliant discarding of wastewater.
- **Hazardous chemical management** – Special attention should be given to the management, storage and disposal of hazardous substances.
- **Reducing loss and waste** – Having a structured process to identify key areas of waste and loss, and a programme of systematically reducing these areas of waste and loss, is a very smart way of demonstrating how that leads to a reduction in energy and water use.
 - The less waste the less energy is used.
 - The less waste the less waste product needs to be managed (handled, transported, etc) and waste by-products, such as methane, are produced.
- **Sustainability across the value chain** – Packhouses are part of a much larger value chain on which they are intimately dependent and often intimately involved. As you mature in your commitment to a sustainable operation, you should also look to assessing and improving the sustainability of your value chain:
 - The practices, protocols, productivity, quality management, and waste & loss management of the orchards supplying fruit to your packhouse.
 - The compliance and accreditation, including environmental compliance, of your material suppliers, e.g., cartons, glues, labels, chemicals, waxes, pallets, etc.
 - The energy efficiency of your outbound logistics chain, including:
 - Quality and efficiency of containers
 - Efficiency of your land-based transport and shipping.
 - The quality and efficiency of the larger infrastructure, and whether you have any influence (individually or through your associations like the CGA) on this component of your value chain.
 - Collaboration and development with the larger value chain to identify and maximise areas of improved sustainability.
- **A commitment to continuous improvement** – Improving the sustainability of your business and the whole value chain is a continuous process. It may very well be that your efforts currently are focused on compliance, i.e., ticking the accreditation and certification boxes. However, you should aim to making a commitment to becoming a highly sustainable operation.

execution steps

See above.

assessment questions

Please Note: There is no minimum / maximum number of questions you can add.

1.	Have you introduced the basic, foundational organisational best practices that will enable you to focus on a "higher order" and less immediate issue like sustainability?
2.	Are you clear on all the areas of compliance to sustainability you are required to report and/or comply with?
3.	Do you have the administrative capability and the system to gather data and report as and when required?
4.	Do you measure energy efficiency and have a plan to improve it?
5.	Is your water management efficient?
6.	Is the management of wastewater compliant with regulation?
7.	Do you manage all hazardous chemicals strictly according to regulation?
8.	Have you done a loss and waste analysis with the view to reducing loss and waste, and the energy and resources employed in dealing with unnecessary loss and waste?
9.	Do you collaborate with your upstream and downstream supply chain to work on improving sustainability?
10.	Have you progressed from mere compliance to sustainability audits to real financial and long-term benefits of a sustainable operation?

resources

1.	BRC Global Standard - Food Safety (Issue 8, August 2018)
2.	BRC Global Standard - Food Safety Interpretation Guideline (Issue 8, August 2018)