GREENHAM BEEF SUSTAINABILITY STANDARD
# TABLE OF CONTENTS

## INTRODUCTION

1. **ANIMAL WELFARE**
   - 1A. Selection for polled animals
   - 1B. Animal health & wellbeing

2. **ECONOMIC RESILIENCE**
   - 2A. Business performance drivers

3. **ENVIRONMENTAL STEWARDSHIP**
   - 3A. Maintaining ground cover
   - 3B. Healthy soils
   - 3C. Grazing management practices
   - 3D. Healthy waterways
   - 3E. Climate resilience & emergency preparedness
   - 3F. Biodiversity & threatened species management
   - 3G. Carbon Management

4. **PEOPLE & THE COMMUNITY**
   - 4A. Commitment to learning
   - 4B. Workplace health & safety
INTRODUCTION

The Greenham Beef Sustainability Standard (GBSS) provides a practical set of key indicators and measures to enhance and showcase the Greenham supply chain’s sustainability credentials.

Developed in response to growing market demand for robust and transparent environmental credentials, the GBSS was created in partnership with Greenham cattle suppliers and customers, and agribusiness consultants, Pinion Advisory. It has also been independently endorsed by Certified Humane®, and leading agriculture and environmental science specialists, Integrity Ag & Environment.

Strengthening the existing NEVER EVER Beef Program, which launched in 2012, the standard is based on the four themes identified by industry in the Australian Beef Sustainability Framework (ABSF), which defines sustainability as the “production of beef in a manner that is socially, environmentally and economically responsible”:

- ANIMAL WELFARE
- ECONOMIC RESILIENCE
- ENVIRONMENTAL STEWARDSHIP
- PEOPLE & THE COMMUNITY

The on-farm sustainability module has three tiers of achievement;

Tier 1: ‘Sustainably raised’

Tier 2: ‘Certified Regenerative’

Tier 3: ‘Carbon Neutral’

Tier one prioritises education and planning, and sets the baseline for sustainable management in the NEVER EVER supply chain. Tiers two and three focus on continuous improvement, striving for optimum ecological health and carbon neutrality.

The tiers are additive i.e. achieving tier two means a producer has met all the requirements of both tiers one and two.

For producers operating mixed farming systems, the indicators and measures outlined in the standard are applicable only to the beef enterprise.
1. ANIMAL WELFARE

Superior animal health and wellbeing is a priority for Greenham. The Greenham NEVER EVER (NE) Beef Program, which was established in 2012, incorporates stringent animal welfare requirements from Livestock Production Assurance (LPA) and Certified Humane® (CH). The GBSS animal welfare requirements bolster the existing NE program and bring the Greenham supply chain into alignment with the ABSF.

1A. Selection for polled animals

Breeding for a polled herd promotes improved animal welfare by negating the need for adverse procedures such as dehorning and disbudding. Polled herds also reduce fighting in herd animals and associated wound management.

AW1: Polled genetics are preferenced in the production system, targeting at least 75% of the herd to be naturally polled.

AW2: For breeders, all replacements are polled.

AW3: For breeders, strictly polled genetics are used, preferencing homozygous polled bulls.

1B. Animal health & wellbeing

Animal health and wellbeing is further bolstered using processor feedback to identify subclinical disease impacting animal health and performance.

AW4: Processor feedback is used to identify and address potential health issues within the herd e.g., bruising, dark cutting rates, and animal health feedback.
## 2. ECONOMIC RESILIENCE

Economic health is intrinsically linked to the overall performance and capability of any business, making it an important measure of sustainability. Profitability can bolster resilience against unexpected challenges such as drought and market change, which can have flow-on effects to environmental performance and animal welfare. As global demand for Australian beef increases, expanding industry’s access to premium international and domestic markets will support stronger and more profitable beef businesses (p12, Australian Beef Sustainability Framework).

### 2A. Business performance drivers

Data collection and analysis enables producers to identify opportunities to improve productivity and profitability. Clear goals and objectives provide a pathway for improving profitability while managing climate variability, so that the enterprise is sustainable in the long-term.

*Note: during an audit, compliance to the below indicators will be assessed through the producer’s ability to articulate and/or demonstrate how the below indicators are achieved. Producers are not required to share financial records or sensitive information with auditors.*

<table>
<thead>
<tr>
<th>TIER</th>
<th>Indicator</th>
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<tbody>
<tr>
<td>1</td>
<td>ER1: Key business performance drivers (e.g. profitability and welfare outcomes) within management’s control are measured and performance is assessed.</td>
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<td>ER2: Relevant production and financial records are maintained to monitor performance.</td>
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<td>2</td>
<td>ER3: Key performance indicators (KPIs) or targets are set for at least two key business performance drivers.</td>
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<td>ER4: Overall business performance is reviewed at least every two years.</td>
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<td>3</td>
<td>ER5: Processes and/or tools are used to improve compliance to the brand/market supplied, while optimising productivity and profitability on-farm e.g. carcase feedback, myMSA, on-farm software, Greenham Connect.</td>
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<td>ER6: If breeding cattle, objective tools are used to ensure herd genetics are aligned with business goals and strive to achieve best animal welfare outcomes (e.g. EBVs, selection indices).</td>
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3. ENVIRONMENTAL STEWARDSHIP

As a major land steward, the Australian beef industry has a close relationship with the environment in which it operates. The beef industry is ideally positioned to contribute to the ecological health of the Australian landscape through the implementation of sustainable land management and grazing practices. Best practice environmental stewardship will not only improve the resilience of Australian beef producers but also nurture their surrounding ecosystems to foster productivity (p13, Australian Beef Sustainability Framework).

3A. Maintaining ground cover

Maintaining ground cover is important for minimising nutrient run-off, erosion and preserving soil carbon. In livestock production systems, proactive pasture management practices are the most effective way to manage ground cover. As a result, ground cover can be used as a measure of effective grazing and pasture management.

Note: ground cover assessments are to be made on all areas of the property used for beef cattle production. Monitoring of ground cover must be undertaken in autumn each year and photos taken. High and moderate risk points should be marked on a property map. Further information regarding ground cover measurement and risk assessment is available in Appendix 1.

EN1: Areas on the property that are at a high risk of erosion are identified, and monitoring points are established. Assessment is undertaken in autumn each year and ≥70% ground cover is achieved.

EN2: Areas used for beef cattle production with a moderate to high-risk of erosion (e.g. north-facing, and moderate to steep slope areas) are assessed in autumn each year, and ≥80% ground cover is achieved in these areas.

EN3: Ground cover in low-risk areas of the property is assessed in autumn each year, and ≥70% ground cover is achieved.

EN4: Areas used for livestock production with a moderate to high-risk of erosion (e.g. north-facing, and moderate to steep slope areas) are assessed in autumn each year, and ≥90% ground cover is achieved in these areas.

EN5: Ground cover in low-risk areas of the property is assessed in autumn each year, and ≥80% ground cover is achieved.
3B. Healthy soils

Proactive nutrient management is important to ensure that soils aren’t depleted (more nutrients being removed than added to the system) or overloaded, with nutrients lost to the environment. Tracking key soil parameters such as organic carbon, pH and salinity over time can also be used to monitor overall soil health.

Note: records of fertiliser applications and other soil inputs are maintained as per requirements in the NEVER EVER Beef Program.

**EN6:** Fertiliser application is based on soil and plant requirements and applied using best practice management techniques. Best practice application techniques for nitrogen fertilisers are outlined in Appendix 2.

**EN7:** Soil testing of perennial pastures is undertaken at minimum once every three years. Tests must be a minimum depth of 10cm and of consistent depth from one test to the next. It is important to take soil tests at the same time of year for each sample, ideally late summer to early autumn. Tests must include the following parameters:

- available phosphorus (P)
- potassium (K)
- sulphur (S)
- pH
- organic carbon (OC)
- electrical conductivity (EC)
- organic matter.

The following parameters must also be measured in the first year:

- exchangeable sodium percentage (ESP)*
- phosphorus buffering index (PBI)

*Where ESP is >6, the producer is required to retest in 3 years’ time.

Soil fertility trends are monitored over time. Refer to Appendix 3 for optimal targets and guidelines around soil testing and interpreting results.
EN8: Producer to select at least one test from the following list of soil biological measures and conduct testing at a minimum once every three years. The variables selected in year one must be continued (and can be built on) so trends can be monitored over time:
1. microbial soil test:
   • total bacteria
   • total fungi
   • total micro-organisms
   • fungi:bacteria ratio
   • microbial diversity indicator.
2. mycorrhizal fungi or VAM test
3. glomalin
4. earthworm count numbers and species diversity.

EN9: Minimum tillage practices are used adopted within the beef enterprise.

EN10: An annual nutrient budget is completed. See template provided in Appendix 6.

3C. Grazing management practices
Sustainable grazing management is crucial for positive production and environmental outcomes. Matching carrying capacity and stocking rate helps to prevent under or overstocking and the associated negative impacts.

EN11: The property’s carrying capacity and annual stocking rate is calculated. Guidance for calculating carrying capacity and stocking rate is provided in Appendix 5.

EN12: An objective assessment of feed supply and projected demand is undertaken seasonally, and action is taken to match feed supply and demand.

EN13: Using the determined stocking rate, a documented grazing plan, incorporating tactical grazing techniques, including rotational grazing, is utilised to ensure optimal feed quality and soil health, adequate recovery time, and maximise the conversion of pasture into beef.
3D. Healthy waterways

Healthy waterways support a healthy environment and are vital for our social and economic wellbeing. They also provide essential habitat for wildlife including many rare and threatened species.

Stock access, soil erosion, overuse of fertiliser, and nutrients from animal waste can all affect water quality and ecosystems.

EN14: Producer complies with relevant water licensing legislation for their property.

EN15: All wetlands are fenced, and livestock are excluded at all times.

EN16: Ensure livestock do not negatively impact waterways on the property including water quality, bank erosion and damage to riparian vegetation through a documented management plan and subsequent actions.

EN17: Water usage is managed to optimise water use efficiency and minimise wastage.

EN18: Stream banks are maintained with ≥90% ground cover and livestock are excluded from steep stream bank areas where erosion risk is high. Stream banks are fenced to exclude livestock wherever practical or wherever stream bank condition can’t be maintained.

3E. Climate resilience & emergency preparedness

Climate is the biggest individual driver of production variability in agriculture. Adapting management practices to meet changing conditions will ensure long-term prosperity.

Source: sustainableaustralianbeef.com.au

Drought, fire and flood plan addressed in GAP and NEVER EVER programs.

EN19: Weather & climate forecasting tools are used to manage for climate variability.
### 3F. Biodiversity & threatened species management

A variety of animals, plants, insects, and microorganisms helps to foster a resilient and productive grazing enterprise. Biodiversity of plant species also promotes microbial growth within soils and a healthy on-farm ecosystem, boosting the resilience of soil and pastures and promoting carbon sequestration.

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<tr>
<th>Tier</th>
<th>Requirement</th>
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<tr>
<td>1</td>
<td>EN20: The producer is aware of and adheres to the relevant vegetation and threatened species legislative requirements for their state.</td>
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<td>EN21: Producer is aware of any declared weeds on their property and has a management plan in place to control these.</td>
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<td>2</td>
<td>EN22: Producer can demonstrate habitat protection activities for known threatened species that occur on the property, and actions to minimise threats, so species populations are maintained. Recognition of protection and conservation works already completed, including conservation covenants and reserves.</td>
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<td>EN23: The property has a documented plan to maintain a variety of grassland types across the farm, as well as a balance of species within paddocks, to maximise grazing and produce forage at different times of the year.</td>
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<td>EN24: A property map is maintained, which identifies different native vegetation communities, riparian areas, revegetation areas (planned and existing), threatened species locations, infestations of declared weeds, and natural and man-made water bodies.</td>
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<td>3</td>
<td>EN25: Producer has set goals relevant to their environment, which demonstrate a commitment to improving the habitat and eliminating threats within the control of the landholder, so that threatened species populations are enhanced.</td>
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3G. Carbon Management

The Australian red meat and livestock industry has set a target to be Carbon Neutral by 2030 (CN30), enabling industry to stay ahead of current and future consumer, customer and community expectations.

A carbon footprint is the net amount of greenhouse gas (GHG) emitted within a beef production system, considering any on-farm emissions as well as carbon sequestration. Carbon accounting tools enable producers to determine their net GHG emissions position, and identify strategies to reduce emissions and improve carbon storage on-farm.

**EN26:** The producer has successfully completed the MLA 'GHG emissions and Carbon 101' and 'Linking on-farm emissions and sequestrations’ e-learning modules, to improve knowledge of on-farm carbon management and enable informed management decisions within their businesses.

**EN27:** Carbon emissions and relevant sequestration are estimated for the farming enterprise using one of the below carbon calculators that are compliant with the red meat minimum standards for carbon accounting.

- SB-GAF
- Zero30 Beef Farmer Carbon Tracker Tool
- Integrity Ag & Environment Verified Carbon Footprint System

Refer to the MLA ‘Carbon accounting’ eLearning module for support in completing the SB-GAF carbon account at home.

**EN28:** Opportunities to improve the property’s carbon footprint (either by reducing emissions or increasing carbon sequestration) have been identified and are being implemented.

**EN29:** The beef enterprise has achieved carbon neutrality.

OR

The emissions from the beef enterprise are 30% below the national average (kg CO2e emitted per kg liveweight as reported annually by the ABSF).
PART 4. PEOPLE & THE COMMUNITY

A safe, healthy, and capable workforce is essential to the sustainability of beef production. A commitment to continuous education and training, and workplace health and safety, reduces the risks faced by employees and contractors (p13, Australian Beef Sustainability Framework). Job satisfaction, which is influenced by growth opportunities, a positive environment and achievement, is a leading driver of employee retention.

4A. Commitment to learning

A commitment to ongoing not limited to WHS education allows employees to grow their knowledge base and improve their job skills to become more effective and safer in the workplace.

PC1: Producer maintains a staff training register containing licences, qualifications, and training priorities for full-time and part-time employees (includes family members).

PC2: Competency assessments are conducted for key tasks e.g. quad bike use, stock handling, and vaccinations.

PC3: Annual performance reviews are conducted with all employees.
4B. Workplace health & safety

According to Safe Work Australia, “agriculture is one of the most dangerous industries to work in”, due to the combination of hazards including mechanical, working with animals, chemicals, noise, dust and prolonged sun exposure; further exacerbated by often isolated and remote locations. A strong focus on workplace health and safety is key to ensuring a sustainable future for the industry.

PC4: An induction checklist and sign-off is maintained for all full-time, part-time, or casual farm workers, including family members and sole traders.

PC5: Hazard identification and a risk assessment is conducted for the property and key tasks so that priorities can be set for upgrades, improvements and staff training.

PC6: The following documents and procedures are in place and have been implemented:

- a written workplace health & safety policy
- safe work procedures for high-risk activities
- records documenting incidents and near-miss incidents in the workplace.

PC7: An in-depth WH&S system has been implemented, which includes a maintenance register for plant, including machinery, equipment, appliances, containers, implements and tools.