

SUSFARMS® 2012

The use of agrochemicals generally raises questions about environmental impacts. The South African sugar industry is committed to environmentally sustainable farming practices. One initiative in this regard is the industry's engagement with SUSFARMS which facilitates sugarcane production in a profitable, sustainable and environmentally responsible manner.



THE SUSTAINABLE SUGARCANE FARM MANAGEMENT SYSTEM (SUSFARMS®) IS A FARMING SYSTEM DESIGNED TO ENCOURAGE SUSTAINABLE SUGARCANE PRODUCTION THROUGH THE IMPLEMENTATION OF BETTER MANAGEMENT PRACTICES (BMPs), WHICH REDUCE THE NEGATIVE IMPACTS OF SUGARCANE AGRICULTURE ON THE ENVIRONMENT.

The system is in keeping with the worldwide trend towards sustainable agriculture and in keeping with South Africa's strategic plan for agriculture and the Department of Agriculture's policy on agriculture for sustainable development.

The BMPs developed are designed to be:

- **practical** – involving experience rather than just theory,
- **workable** – directed to ensuring the practice is achievable,
- **sustainable** in the long-term,
- **acceptable** to legislators, environmentalists and growers, and
- have the capacity to be used as an **extension tool**.

What is the purpose of SUSFARMS®?

To provide the sugarcane grower with a tool that will facilitate the production of sugarcane in a profitable, sustainable and environmentally responsible manner. To provide the local sugarcane Extension Specialist with a tool that will facilitate the development of a focussed programme of work and guide the direction of new technology development and adoption.

SUSFARMS® aims to improve the sustainability of sugarcane agriculture by promoting the use of better management practices in the spheres of people, planet and prosperity.

SUSFARMS® ideology

SUSFARMS® – is designed to reduce the negative impacts on the environment whilst ensuring economic sustainability and social upliftment through implementa-

tion of better management practices. The objective is not to tell the grower what he/she should do, but rather to determine his/her current performance against a set of measures and to offer advice as to how to improve the situation. The result of a completed audit allows the grower to highlight his/her strengths and weaknesses and to develop a plan to correct any obvious deficiencies. Implementation of the system by the grower should result in improved performance in the environmental, social and economic spheres.

Why the need for SUSFARMS®

There is a growing trend internationally for customers to question the methods used to produce raw materials and the assessment mechanisms developed to verify the sustainability of production of the raw material. Questions are being asked related to:

Food safety and quality – how does the sugarcane producer reduce the food safety risk regarding the use of pesticides, herbicides and other agrochemicals? How does the sugarcane producer reduce the quality risk regarding non-sucrose and potential contaminants such as dextran and colour?

Sustainability, ethics and social responsibility – is child labour being used and are the mechanisms for sustainability being verified? There is now a need to formalise the ability to prove to the customer that meaningful and effective assessments of the production process are taking place.

What are BMPs?

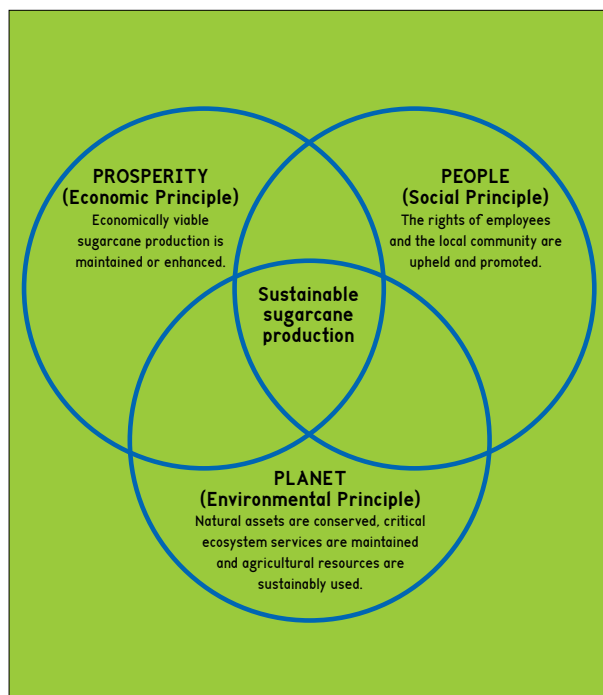
BMPs are measures introduced to reduce environmental impacts, which should deliver economic benefits as well as address the needs of labour and the local community thereby ensuring the long-term sustainability of the sugarcane farm. BMPs are based on knowledge derived from scientific studies, or in the absence of such data, best available knowledge and may require upgrading as new technology, thinking and methods are developed.

The SUSFARMS® model

The system uses a set of principles, statements of intent and measures, which support relevant international and South African legislation and sugar industry required standards, which are applied by means of the BMPs.

Three main principles make up the main framework:

- Economic principle (Prosperity) – economically viable sugarcane production is maintained or enhanced.
- Social principle (People) – the rights of employees and the local community are upheld and promoted.
- Environmental principle (Planet) – natural assets are conserved, critical ecosystems services are maintained and agricultural resources are sustainably used.



Each principle is sub-divided into several statements of intent, which in turn are divided into more specific and objective measures. By satisfying the requirements of the measures, the objectives of the statements of intent and principles will be met thus leading to sustainability. The measures are used in an audit, for use by individual

growers, Extension Specialists and environmental auditors, to determine the status of the farm. Areas of strengths and weakness are identified and an action plan to improve the areas of weaknesses can easily be developed. The statement of intent is a broad statement indicating the overall objective (or desired outcome) of the implementation of legally compliant or better management practices.

The measures fall into two broad categories: performance based or process based depending on the practicality of measurement. The measures form the BMPs, which are allocated to three main categories:

Legal requirement	Practices that are legally binding – set in legislation
Better management practice	Practices that are not legally binding but will enhance sustainability
Higher level practice	Practices that are higher than the expected level of performance

The Measures are the auditable elements of the system and form an integral part of the audit checklist.

- For each practice that is required, there is a related “measure” that serves to “check” whether legal requirements have been implemented or better management practices are in place.
- Compliance with a “measure” will contribute to the achievement of good farm management.

Example of the conceptual framework of SUSFARMS® under the Prosperity principle and Land Use Plan section showing the statement of intent and measures.


Prosperity	Section	Statement of intent	Measure
Economically viable sugarcane production is maintained or enhanced	Land use plan	The agronomic and mechanisation practices of the sugarcane farm are integrated with the climate, soils, water and topography to obtain optimum and sustained economic crop production	Legal A written Land Use Plan exists, containing details and specifications with regard to: <ul style="list-style-type: none"> • Conservation terraces • Waterways • Roads and extraction system • Wetlands and watercourses • Dams • Quarries • Rubbish dumps
			BMP <ul style="list-style-type: none"> • Soils including depth and form • Non-arable and natural vegetation areas • Fields including number and area in hectares • Staff/labour housing and workshop
			Higher level practices <ul style="list-style-type: none"> • Minimum tillage fields • Fields suitable for trashing • Fields suitable for mechanisation

Advantages of SUSFARMS®

The system encourages continuous improvement and promotes benchmarking. It demonstrates the sugar industry's position regarding child labour, support of human rights and concern with implementing environmentally sound practices. It provides end-users with a high level of assurance of the sustainable practices being implemented on the farm.

SUSFARMS® will promote the best management practices to be embraced and entrenched across the South African sugar industry, drive the industry to greater

sustainability and increase the global recognition of the South African sugar industry as a sustainable operator.

SUSFARMS® has been received very positively by a number of the large sugar buyers as it demonstrates that best practices have been assessed for sugar industry, suppliers of the raw material have kept in touch with customer demands and supports sustainability of raw material supply. 



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