

MANAGEMENT SYSTEMS APPLICABLE TO THE SOUTH AFRICAN WINE INDUSTRY

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1. The modern wine business

Today, more than ever, companies are challenged to continually improve in managing their businesses to gain credibility and market share. Legal and regulatory compliance as well as conformance to customer requirements are the minimum standards to be met. In order to conform to these requirements, a well defined management system should be implemented. An integrated management system will enable a company to incorporate various standards (i.e. product quality, food safety, health and safety of employees, social and environmental responsibilities) in a single, integrated management system.

Wine is considered a beverage and therefore should conform to standards and regulations as required by the food and beverage industry. Worldwide there are increasing concerns regarding public health that might be at risk through the chemical, physical or biological contamination of foods and beverages, as well as allergens that these products may contain. After a number of food safety scares, the Consumer Goods Council (the only independent global network for consumer goods retailers and manufacturers) facilitated the Global Food Safety Initiative (GFSI) which is a collaboration between the world's leading food safety experts from retailer, manufacturer and food services companies. GFSI benchmarks existing food safety standards against food safety criteria using the GFSI Guidance Document (Fifth Edition, published on their website www.mygfsi.com). These GFSI approved schemes have a common (but not equal) foundation of requirements applied during an audit.

The *Consumer Protection Act 68 of 2008* has also provoked huge awareness and interest throughout all industries. To avoid costly lawsuits and public damage to reputation and image, producers will have to comply with the new accountability and outcomes required by the *Consumer Protection Act 2008*. The Codex Alimentarius Commission (www.codexalimentarius.net) developed HACCP as the international standard for food safety which is implemented in all food producing industries and required for the manufacturing of food and beverage products intended for export to the European Union. These principles, as well as environmental and social responsibilities of the wine industry are also supported by FIVS (French: *Federation Internationale des Vins et Spiritueux International* or translated the International Federation of Wines and Spirits, <http://fivs.org/>) and the OIV (French: *Organisation Internationale de la Vigne et du Vin* or translated the International Organisation of Vine and Wine, <http://oiv.int>).

2. The necessity of management systems

No wine company, whether a tiny producer or a market leader, can longer ignore the fact that critical requirements around legal, regulatory, social, environmental, health and safety, food safety and quality aspects of the winemaking process should be met to be able to compete on the international market. As a result, a well integrated management system should be implemented by all businesses. Decision making should be lead by senior management to

establish which standards are required to be implemented to meet the needs of the company. Table 1 can be used as a guideline of the management areas where needs may arise to be certified and also indicate which standards may be considered to meet those needs.

Table 1: Outline of management systems (Please note that this is not a complete list of all relevant acts, standards and management systems)

MANAGEMENT SYSTEMS					
PRIMARY PRODUCTION	FOOD SAFETY	QUALITY	HEALTH AND SAFETY	SOCIAL ACCOUNTABILITY	ENVIRONMENTAL
GlobalGAP SQF 1000 IPW (Farms) ISO 22000 FSSC 22000 Organic Certification	HACCP BRC ISO 22000 FSSC 22000 IFS SQF 2000 IPW	ISO 9001 BRC IFS SQF 2000	OHSAS 18001	SA 8000 Fairtrade WIETA	ISO 14000 IPW
MINIMUM NATIONAL LEGAL REQUIREMENTS:	MINIMUM NATIONAL LEGAL REQUIREMENTS:	MINIMUM NATIONAL LEGAL REQUIREMENTS:	MINIMUM NATIONAL LEGAL REQUIREMENTS:	MINIMUM NATIONAL LEGAL REQUIREMENTS:	MINIMUM NATIONAL LEGAL REQUIREMENTS:
<i>Consumer Protection Act 68 of 2008</i>	<i>Consumer Protection Act 68 of 2008</i> HACCP required for export to the EU	<i>Consumer Protection Act 68 of 2008</i>	<i>Occupational Health and Safety Act 85 of 1993</i>	<i>Labour Relations Act 66 of 1995</i>	<i>National Environmental Management Act 107 of 1998</i> <i>National Water Act 36 of 1998</i> (Refer to section below for more related legislative information)

To assist with the decision making of the most appropriate standard(s) to be implemented by the company, a Gap Analysis should be performed by senior management. During this process, current practises followed by the company are compared to requirements of the relevant retailers and/or customers. Naturally, requirements by law are also considered. The “gaps” should be used as indicators of the required management system(s) to be implemented. The following guidelines may be helpful during the Gap Analysis:

- The standard(s) should support the business values.
- What standards are suitable for the wine industry and sector?
- Is the product intended for the local or international market?
- What is the scope in the wine company that needs to be certified?
- Where does this scope fit into the supply chain?
- What is required/needed/recognised by the relevant retailers and/or customers?
- What is required/needed/recognised by the targeted future customers?
- Can the requirements of the preferred management system(s) actually be implemented?
- The resources required by the standard(s) should be considered in terms of:
 - Staff requirements;
 - Time spent on management and record keeping;
 - Costs of training courses and auditing, and
 - Capital expenses that might be necessary.

In Table 2, a brief reference is made to standards that might be considered to be implemented by the wine company. After identifying the standard(s) to be implemented, senior management and key personnel that will be involved in the implementation process should attend the relevant training courses. An implementation plan is drafted by senior management of the wine company. Once all requirements have been implemented, an internal audit is conducted to point out any deviances to be corrected. A final management review and update should be conducted before the wine company is ready for the external auditing process. Table 3 can be used as a reference for accredited certification bodies that may conduct the relevant audit. Once the audit is completed, findings might be raised by the certification body which should be cleared by the wine company. Once all the requirements of the standards were met successfully, certification for the relevant standard(s) is issued to the wine company.

Table 2: Comparison of standards (Most relevant standards implemented by the South African wine industry)

STANDARD	RECOGNITION	SCOPE	SPECIFIC RISKS ATTENDED TO IN WINERY	FOCUS	WEBSITE
IPW Guidelines for Farms (August 2009)	National: Required by some South African retailers	Primary production, environmental management	Environmental sustainability and food safety in primary production	IPW certified grapes are a pre-requisite for the production of IPW certified wine. Food safety through traceability of spray records kept during primary production.	www.ipw.co.za
IPW Guidelines for Cellars (6 th Edition: July 2009)	National: Required by some South African retailers	Environmental management, winery and bottling plant	Environmental sustainability and food safety	Reduced environmental impact of winemaking and bottling process. Food safety in wine production and packaging.	www.ipw.co.za
ISO 14001: 2004	International	Environmental management	Management of environmental risks caused by the business	Reduce negative environmental impact by decreasing pollution and waste caused by the production. Reduced cost of waste management, savings in consumption of energy and materials, lower distribution costs, improved corporate image.	www.iso.org
SQF 1000 Code 5 th Edition	International	Primary production (excluding wineries)	Food safety and quality in primary production. (Level 2 GFSI approved)	Traceability of grapes and chemicals used during production.	www.sgfi.com
Organic certification	National or international: Note that requirements of the import country should be met.	Primary production, wine production	Organic standards for grape and wine production.	Organic production may enhance health benefits to the consumer as products are free of harmful ingredients, such as pesticides and genetically modified organisms. Although environmental aspects are addressed within the system, it does not necessarily include all relevant environmental performance aspects & guarantees (e.g. IPW, EnviroWines, BWI and ISO 14001).	www.afrisco.net & www.bdoca.co.za (National certification) www.ifoam.org www.organic-europe.net (EU Regulation) www.ams.usda.gov (USA and Canadian standard)
SANS 10330: 2007 (HACCP)	International	Winery, bottling plant	Food safety	Production of legally safe food. Physical risks (glass breakage), chemical risks (traceability of additives, allergens) and microbiological risks are addressed on a preventative basis.	www.codexalimentarius.net/download/standards/23/cxp_001e.pdf

STANDARD	RECOGNITION	SCOPE	SPECIFIC RISKS ATTENDED TO IN WINERY	FOCUS	WEBSITE
FSSC 22000	International	Primary production, winery, bottling plant	Food safety and legality (GFSI approved)	As for ISO 22000, with specific attention to PRP's as implemented by PAS 220.	www.fssc22000.com
BRC Global Standard for Food Safety Issue 5	Required by most British and other international retailers.	Winery, bottling plant	Food safety, quality and legality (not applicable to primary production) (GFSI approved)	Control of known food hazards and risks as for HACCP, as well as quality and legality. Due diligence at manufacturing level. Consumer satisfaction also addressed.	www.brcglobalstandards.com
ISO 22000:2005	International	Primary production, winery, bottling plant	Food safety and legality (Not GFSI approved without PAS 220).	Control of known food hazards and risks as for HACCP and legality. Consumer satisfaction also addressed. Risk management and continual improvement. Can easily be linked with other ISO standards.	www.iso.org
IFS Food Version 5	International: Required by most German, French and other international retailers.	Winery, bottling plant	Food safety, quality and legality (GFSI approved)	Control of known food hazards and risks as for HACCP, quality and legality. Consumer satisfaction also addressed.	www.ifs-certification.com
SQF 2000 Code Edition 6	International: Required by most American and Australian retailers.	Winery, bottling plant	Food safety, quality and legality (Level 2 GFSI approved)	Control of known food hazards and risks as for HACCP, quality and legality. Storage, distribution and meeting consumer specifications also addressed.	www.sqfi.com
ISO 9001: 2008	International	Winery, bottling plant	Quality management system	Quality management for any type of organisation (manufacturing or service provision) based on continual improvement to ensure customer satisfaction and avoidance of legal action. Compatible with other ISO standards.	www.iso.org
OHSAS 18001: 2007	International	Health and safety	Health, safety and legality in the work environment	Legal compliance, due diligence and continual improvement of a company's occupational, health and safety risks. Compatible with ISO standards.	www.18001.org



STANDARD	RECOGNITION	SCOPE	SPECIFIC RISKS ATTENDED TO IN WINERY	FOCUS	WEBSITE
SA 8000: 2008	International	Social accountability	Basic social rights of workers	Ethical treatment of labourers in compliance with global standards and ability to meet ethical trade agreements. Employee and customer satisfaction.	www.sa-intl.org
Fairtrade	International	Social accountability and ethical trade	Basic social rights of workers and establishing ethical trade partnerships	Social justice, equity and fairness. Improved production and trading conditions. Establishing trading partnerships in developed countries.	www.fairtrade.org.za www.fairtrade.net
WIETA	National	Social accountability and ethical trade	Basic social rights of workers and promoting ethical trade partnerships in the agricultural industry	Social justice, equity and fairness. Improved working conditions of employees in agriculture. Global ethical trade.	www.wieta.org.za

Table 3: Relevant accreditation bodies

ACCREDITATION BODY	SCOPE OF ACCREDITATION	WEBSITE
Wine and Spirit Board (WSB)	Integrated Production of Wine (IPW)	www.enviroscientific.co.za www.ipw.co.za
SANAS (South African National Accreditation System)	GlobalGAP ISO 9001:2000 ISO 14001:2004 ISO 22000:2005 HACCP, SANS 1330:2007 Product certification	www.sanas.co.za/directory/cert_default.php
Ifoam (International Federation of Organic Agriculture Movements): List of accredited certification bodies published on the website of IOAS (International Organic Accreditation Service)	Organic certification	www.ifoam.org www.ioas.org/xlistifo.pdf (list of accredited certification bodies)

3. Conclusion

At first the prospect of management systems may seem daunting or even unnecessary, but when the risks of the industry are considered, the implementation of these systems is a small price to pay for peace of mind. Not only will management systems be valuable for the wine company to meet regulatory and legal needs, but the wine company will be showing due diligence towards the consumer in terms of a food safe, quality product and is vital for earning international market share. A wine company is also accountable for the social welfare and health and safety of its workers. A responsibility towards nature and the environment is essential for the wellbeing of our industry. Not only is the wine industry dependent upon nature to produce grapes for award-winning wines, but the Cape Floral Kingdom is also one of the main attractions for tourism to South Africa. It is our duty to preserve this unique natural heritage for our descendants. The tools presented here are the starting point of a responsible and proactive approach to your wine business that will elevate your wine company to new heights. In addition, please find below further reading that might be helpful in your search for perfection.

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- Celeste Truter, Constellation Wines SA (celeste.truter@cbrands.co.za)

Useful articles on South African Environmental Legislation

- Winery Wastewater management legislation (wastewater guide)
Website: <http://www.enviroscientific.co.za/pdf/WinetechWastewaterguidelinesMarch05.pdf>
- General information regarding environmental legislation applicable to the wine industry
Website: www.wineland.co.za/wynboer_archive/recentarticles/0101environment.html

Further reading

- **BDAASA**: Biodynamic Agricultural Association of Southern Africa.
Website: www.bdsaasa.org.za
- **Biodiversity and Wine Initiative (BWI)**: BWI is a partnership between the South African wine industry and the conservation sector. Their aim is to minimise the further loss of natural habitat in critical sites and in this way increase the total area of natural habitat set aside in contractual protected areas. Sustainable grape production is encouraged by enhancing the suitability of vineyards as habitat for biodiversity. This is achieved by changing farming practises that negatively impacts on biodiversity in the vineyards and the surrounding natural habitat. Both the wine industry and conservation sector will benefit as BWI creates a unique selling point for marketing the wine industry while preserving the Cape Floral Kingdom for future generations.
Website: www.bwi.co.za
- **EnviroWines**: Wine producers who excel in their environmental performance are recognised and marketed through this unique international programme. Producers should excel in an IPW audit and are rewarded for the implementation of additional sustainable vitiviniculture practices such as certified organic production, IPW, BWI and ISO 14000.
Website: www.envirowines.com
- **FIVS**: International Federation of Wines and Spirits.
Website: <http://fivs.org/>
- **Green Dot / Grune Punkt (Duales System Deutschland GmbH)**: German private sector recycling company that organizes the collection and sorting of sales packaging marked with the Green Dot.
Website: www.gruener-punkt.de
- **IFOAM**: International Federation of Organic Agriculture Movements. It is the worldwide umbrella organisation for the organic agricultural movement. They have developed the Organic Guarantee System (OGS) to unite the organic world through a common system of standards, verification and market identity.
Website: www.ifoam.org

- **ISO 14001:** Environmental Management Systems in the Wine Industry
Website: www.enviroscientific.co.za; www.wineland.co.za
- **Linking Environment and Farming (LEAF):** This standard is based on Integrated Farm Management (IFM) principles and focus on the production of affordable and safe produce that is less harmful to the environment.
Website: www.leafuk.org
- **NSF-CMi Due Diligence Standard:** This standard focuses on small to medium size businesses for all aspects of the manufacturing process. This system is implemented at an operational level to ensure that the manufacturer will meet requirements to ensure consistent production of safe and legally compliant food products. This program focuses more on the process while the focus of BRC is upon overall quality management systems.
Website: www.nsf-cmi.com
- **OIV:** International Organization of Vine and Wine.
Website: <http://oiv.int/>
- **SANS 1840 and SANS 1841 (e-mark):** Volume control through registration by the Legal Metrology Department.
Website: www.sabs.co.za
- **SEDEX:** Online information exchange for businesses committed to continually improving the ethical performance of their supply chains.
Website: www.sedex.org.uk

Useful local websites

- **South African Auditor and Training Certification Association (SAATCA):** This is not a certification or accreditation body. A list of registered course providers and auditors for management systems in South Africa is published on this website.
Website: www.saatca.co.za
- Local website with wine information aimed at producers and consumers.
Website: www.wine.co.za
- Local website with vine and wine information aimed at producers.
Website: www.wineinfo.co.za
- Local website with semi-scientific and popular articles relating to the South African wine industry.
Website: www.wineland.co.za
- Wines of South Africa (WOSA) promote the export of South African wines to international markets.
Website: www.wosa.co.za

Glossary

- *Accreditation*: The certification body are assessed by the South African National Accreditation System (SANAS) and is given formal recognition (accreditation) to act as the certification body of a specific standard.
- *CCP (Critical Control Point)*: Point or system in the manufacturing process where control can be applied to prevent, reduce or eliminate a food safety hazard to an acceptable level.
- *Certification*: It is granted to a company when a third party audit by a certification body approves a standard implemented by the company (e.g. ISO 9001). A process, person or service can be certified when it conforms to a specific standard or specifications.
- *Corrective action*: Action and preventative action taken to eliminate the cause of a non-conformance.
- *GAP (Good Agricultural Practise)*: A collection of principals applied during cultivation and processing resulting in safe and healthy food and non-food agricultural products while taking into account economical, social and environmental sustainability.
- *GAP Analysis*: Determining the difference between the actual current state and the desired future state or outcome.
- *GMP (Good Manufacturing Practise)*: The implementation of safe, efficient and economical practises to produce a quality product.
- *Hazard*: A physical, chemical or biological contamination of the food product that could be harmful to the consumer when the product is consumed.
- *Non-conformance*: This is identified or raised when a specific requirement of the standard or the company's own documentation and policy has not been met. This is normally identified through an internal or external audit.
- *PRP (Pre-requisite Programmes)*: Operational PRP's are procedures implemented in the manufacturing environment to ensure a food safe product by controlling specific hazards in the process or product. This includes GMP's and is the basis of the HACCP system.
- *Validation*: Obtaining evidence that the specific instrument or test measure used for verification of the CCP is functioning correctly (i.e. calibration certificates and standards).
- *Verification*: The application of methods, procedures, tests and other evaluations (i.e. audits) to ensure that the controls applied to the CCP's are functioning correctly.