

# LIQUOR PRODUCTS ACT 60 OF 1989

## SCHEME FOR THE INTEGRATED PRODUCTION OF WINE

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I, Derek Andre Hanekom, Minister of Agriculture, acting under [section 14](#) of the Liquor Products Act, 1989 (Act No. 60 of 1989), on the recommendation of the Wine and Spirit Board referred to in [section 2](#) of the said Act, hereby -

- (a) establish the Scheme set out in the Schedule; and
- (b) declare that the said Scheme shall come into operation on the date of publication.

**D. A. HANEKOM,**  
**Minister of Agriculture.**

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#### 1. Definitions

In this Scheme, unless the context otherwise indicates -

“**agricultural remedy**” means an agricultural remedy as defined in the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947);

“**farm**” means one or more pieces of land or portions of pieces of land which is managed as a single unit with a view to the growing of grapes intended for the production of wine, irrespective whether such pieces or portions of land are adjoining, and whether any other farming activities are also undertaken thereon;

“**fertilizer**” means a fertilizer as defined in the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947;

“**grapes**” means the fruit of plants of *Vitis vinifera*;

**“growth stimulant”** means an agricultural remedy which is a growth stimulant;

**“herbicide”** means an agricultural remedy which is a herbicide;

**“integrated production”**, with regard to the growing of grapes and the production of wine, means the application of methods, techniques and practices which

- (a) are in harmony with the environment;
- (b) comprise the non-application or barest essential application of fertilizers, agricultural remedies and other injurious substances in the growing of such grapes and the production of such wine; and
- (c) will ensure that the wine concerned does not contain any substances in excess of the limits deemed to be safe for human health;

**“IP wine”** means wine in connection with the sale of which it is intended to use a word or expression which claims integrated production;

**“the Act”** means the Liquor Products Act, 1989 (Act No. 60 of 1989), including the regulations made thereunder;

**“the Board”** means the Wine and Spirit Board established by [section 2](#) of the Act;

**“this Scheme”** means the Scheme for the Integrated Production of Wine referred to in section 4; and

**“wine”** means a product which complies with the requirements set out in [section 5](#) of the Act.

## **2. Name of Scheme**

This Scheme shall be known as the Scheme for the Integrated Production of Wine.

## **3. Objects of Scheme**

The objects of this Scheme are -

- (a) to serve as a basis for the application of the principles of integrated production in the growing of grapes and the production of wine;
- (b) to regulate the registration of farms where grapes intended for the production of IP wine are grown, and of cellars in which such wine is produced;
- (c) to confirm the correctness of indications relating to integrated production which are used in connection with the sale of such wine; and
- (d) to establish confidence in such indications when they are thus used.

## **4. Applications for registration**

- (1) An application for the registration of a farm with a view to the growing of grapes intended for the production of IP wine, or of a cellar with a view to the production of IP

wine shall be made on the applicable form which is obtainable from the Board for this purpose.

- (2) Separate applications shall be thus made in respect of different farms and cellars.
- (3) Unless the Board determines otherwise in a particular case, such application shall -
  - (a) in the case of a farm, be lodged with the Board at least nine months prior to the expected date on which the harvesting of grapes will commence during a particular year on the farm concerned; and
  - (b) in the case of a cellar, be lodged with the Board at least six months prior to the expected date on which the processes in connection with production of IP wine will commence during a particular year in the cellar concerned.
- (4) The applicable amount determined by the Board for this purpose shall be payable to the Board in respect of such application in the manner and at the time determined by the Board.
- (5) Upon receipt of such application the Board shall issue a report form to the applicant concerned in which he or she shall record the applicable particulars with regard to the management and operation of the farm or cellar concerned which are required therein.
- (6) A report form which has been thus completed shall be returned to the Board on the date specified by the Board at the time of issuing thereof.
- (7) An application for the registration of a farm or a cellar shall lapse if the applicant concerned -
  - (a) fails or refuses to record the applicable particulars required in the report form concerned; or
  - (b) fails or refuses to return such report form to the Board as contemplated in subsection (6).

## **5. Registration of farms and cellars**

- (1) A farm or a cellar may be registered in terms of this Scheme if the Board is satisfied that the management and operation thereof are undertaken in accordance with the guidelines with regard to the application of integrated production as set out in Annexure 1 or 2, as the case may be.
- (2) When a farm or cellar is thus registered -
  - (a) the Board may determine conditions and requirements with regard to the growing of grapes on the farm concerned or the production of wine in the cellar concerned; and
  - (b) the Board shall issue a certificate of registration in respect of the farm or cellar concerned to the applicant concerned.

- (3) A certificate of registration shall be accompanied by a report form in which the holder of that certificate shall record the applicable particulars with regard to the management and operation of the farm or cellar concerned which are required therein.
- (4) A report form which has been thus completed shall be returned to the Board on the date specified by the Board at the time of issuing thereof.
- (5) If the Board refuses to register a farm or a cellar, it shall notify the applicant concerned in writing of the decision and of the grounds on which it is based.

## **6. Conditions of registration**

The registration of a farm or a cellar in terms of this Scheme shall be subject to the following conditions:

- (a) The management and operation of the farm or cellar concerned shall at all times be undertaken in accordance with the guidelines with regard to the application of integrated production as set out in Annexure 1 or 2, as the case may be, and the conditions and requirements determined by the Board in terms of section 5(2)(a) of this Scheme.
- (b) The particulars which the holder of the certificate of registration concerned has to record in terms of section 5 (3) of this Scheme on the report form which has been issued to him or her shall, unless the Board directs otherwise in a particular case, be thus recorded not later than the working day following the day on which the recordable act concerned was undertaken.
- (c) All the other applicable provisions of this Scheme, and of a condition or requirement determined thereunder, shall at all times be complied with on the farm or in the cellar concerned.

## **7. Maintenance of registrations**

- (1) The holder of a certificate of registration may maintain such certificate by means of the annual payment on or before a date determined by the Board, of the applicable amount determined by the Board for this purpose.
- (2) When a certificate of registration is thus maintained -
  - (a) the Board may amend or supplement the requirements and conditions with regard to the growing of grapes on the farm concerned or the production of wine in the cellar concerned as determined in terms of section 5(2)(a) of this Scheme, to such extent as the Board may deem expedient; and
  - (b) the Board shall issue a new report form to the holder of the certificate of registration concerned in which he or she shall record the applicable particulars with regard to the management and operation of the farm or cellar concerned which are required therein.
- (3) The provisions of section 6(b) of this Scheme shall *mutatis mutandis* apply to the recording of particulars in such new report form.

- (4) A report form which has been thus completed shall be returned to the Board on the date specified by the Board at the time of issuing thereof.

## **8. Termination and suspension of registrations**

- (1) The holder of a certificate of registration may at any time by means of a written notice to the Board terminate the registration of the farm or cellar concerned.
- (2) A notice in terms of subsection (1) shall be accompanied by the certificate of registration concerned.
- (3) The Board may at any time by means of a written notice to the holder of a certificate of registration terminate or suspend the registration of the farm or cellar concerned in terms of this Scheme, either in general or to such extent as the Board may in a particular case direct, if
  - (a) the holder concerned refuses or fails to record the required particulars in the report form which has been issued to him or her;
  - (b) the holder concerned refuses or fails to return a report form to the Board as contemplated in section 5 (4) or 7 (4) of this Scheme;
  - (c) the holder concerned refuses or fails to maintain the registration of the farm or cellar concerned as contemplated in section 7 (1) of this Scheme;
  - (d) the Board is satisfied that the management and operation of the farm or cellar concerned are not at all times conducted in accordance with the guidelines with regard to the application of integrated production as set out in Annexure 1 or 2, as the case may be; or
  - (e) the holder concerned refuses or fails to comply with any other provision of this Scheme or a condition or requirement determined thereunder on the farm concerned or in the cellar concerned.
- (4) A notice in terms of subsection (3) shall specify the grounds on which the decision concerned is based.
- (5) A person who has been thus notified shall return the relevant certificate of registration to the Board within 30 days of the date of such notice.
- (6) A suspension of the registration of a farm or cellar as contemplated in subsection (3) shall be valid for such period and be subject to such conditions as the Board may in each case determine.

## **9. Payment of fees**

- (1) An amount which is payable in terms of this Scheme shall -
  - (a) be paid to the Board; and
  - (b) subject to the provisions of subsection (3), be paid within 30 days of the date of issue of a statement reflecting the amount due.

- (2) If a person refuses or fails to pay the amount reflected in a statement referred to in subsection (1)(b) within the period permitted under that subsection -
  - (a) such amount shall become immediately payable together with interest thereon calculated from the date of issue of the statement concerned, at a rate determined by the Board; and
  - (b) the Board may suspend the registration of the farm or cellar concerned as contemplated in subsection 8 (3) of this Scheme until the amount and interest referred to in paragraph (a) have been paid to the Board.
- (3) If the Board had on more than one occasion deemed it necessary to suspend the registration of a farm or cellar in terms of subsection (2)(b), it may require that -
  - (a) all amounts payable by the person concerned in terms of this Scheme shall be prepaid; or
  - (b) the person concerned maintain a deposit or furnish a guarantee for an amount determined by the Board.

## **ANNEXURE 1**

### **GUIDELINES WITH REGARD TO THE APPLICATION OF INTEGRATED PRODUCTION ON FARMS WHERE GRAPES INTENDED FOR THE PRODUCTION OF IP WINE ARE GROWN**

#### **1. Management**

- 1.1 A farm on which grapes intended for the production of IP wine are grown shall be managed and operated as a unit, irrespective of the number of properties comprising such farm or the nature of the other farming activities which are practiced thereon.
- 1.2 The person in charge of the growing of grapes on the farm shall have thorough knowledge of the principles involved in integrated production.
- 1.3 The Board may require that a person referred to in paragraph 1.2 attend a training course in connection with the application of integrated production which has been approved by the Board and which includes training in integrated pest control.
- 1.4 Agricultural production on the farm shall be in harmony with the environment, and the natural agricultural resources on the farm shall therefore be utilised in a manner which -
  - 1.4.1 will ensure the maintenance of the sustained production potential of the land;
  - 1.4.2 will counteract erosion of the soil through the action of water, wind or other agents, and will promote the conservation of soil which is subject to such erosion;
  - 1.4.3 will prevent the weakening or destruction of the water sources; and
  - 1.4.4 where applicable, will promote the protection of natural vegetation and the combating of weeds and invader plants.

## **2. Soil and terrain**

- 2.1 Natural vegetation may only be removed from a piece of land intended for the establishing of vines after an environmental impact study has shown that it will not be to the detriment of the natural agricultural resources.
- 2.2 A thorough terrain and soil profile study of a piece of land intended for the establishing of vines must be undertaken beforehand, irrespective of whether vines were previously established thereon, with a view to determine the soil preparation and fertilization requirements of that piece of land for the purpose of the utilisation thereof for viticulture.
- 2.3 The soil preparation actions on such a piece of land shall -
  - 2.3.1 be based on the findings of the soil profile study referred to in paragraph 2.2; and
  - 2.3.2 be of such a nature and extent that it will not cause secondary problems such as soil erosion, weakened drainage or the ploughing up of chemically or physically undesirable layers of soil.
- 2.4 The chemical correction of macro and micro elements during soil preparation shall
  - 2.4.1 be done on the basis of the results of the analysis of representative samples of the topsoil and subsoil which were taken during the soil profile study referred to in paragraph 2.2; and
  - 2.4.2 be in accordance with the required level of production of the vines to be established on the piece of land concerned.
- 2.5 Tractor and implement traffic on prepared land prior to the establishing of vines shall be restricted to the essential.
- 2.6 The ridging of soil may only be undertaken if it is not possible to obtain optimum soil depth for the establishing of vines by means of conventional soil preparation methods.

## **3. Choice of grape cultivars**

- 3.1 A terrain study referred to in paragraph 2.2 shall include an investigation into the prevailing climatic and ecological circumstances of the piece of land concerned and the expected influence thereof on factors such as growth vigour, delayed budding, disease pressure and time of ripening of the vine cultivars which are considered for establishing thereon.
- 3.2 The choice of scion and rootstock cultivars to be established on the piece of land concerned shall be restricted to those which, on the basis of the findings of such terrain study, are by virtue of their disease resistance and adaptability to the climatic and ecological circumstances concerned, best suited so as to ensure optimal growth and an economical yield of quality grapes with minimum human interference on the piece of land concerned.
- 3.3 Only the best available plant material shall be used for the establishing of vines on such piece of land, and preference shall be given to plant material which is certified in terms of a scheme established under the Plant Improvement Act, 1976.

#### **4. Vineyard lay-out**

- 4.1 The row direction, planting density and trellising system which are used on a piece of land shall be of such a nature that it will not contribute towards the erosion of the soil, and will create a micro-climate which will be conducive for optimal plant development, air movement and exposure to sunlight, and will reduce the incidence of diseases.

#### **5. Cultivation**

- 5.1 In order to prevent the undoing of the favourable conditions created in a vineyard by means of correct soil preparation and vineyard lay-out

5.1.1 tractor and implement traffic in the vineyard shall be restricted to the essential;

5.1.2 mechanical cultivation of the ridges shall be done judiciously and be restricted to the minimum; and

5.1.3 mechanical cultivation between rows shall be restricted to the establishing of cover crops and the combating of weeds in combination with suitable herbicides.

#### **6. Combating of weeds**

- 6.1 The chemical control of weeds which occur in a vineyard -

6.1.1 shall be restricted to the essential; and

6.1.2 may only be applied by means of herbicides which are registered for use on the weeds concerned in vineyards.

- 6.2 When the use of a herbicide for the control of weeds in a vineyard is unavoidable, it must be administered strictly in accordance with the directions for use indicated on the package thereof:

Provided that the use of pre-sprouting herbicides in a vineyard shall as far as possible be avoided.

- 6.3 Notwithstanding the provisions of paragraphs 6.1 and 6.2 the Board may, when determining requirements and conditions for the registration of a farm in terms of this Scheme, prohibit or restrict the use of a particular herbicide or herbicides which are not reconcilable with integrated production, on farms where grapes intended for the production of IP wine are grown.

#### **7. Fertilization**

- 7.1 Balanced fertilization shall be applied in a vineyard in order to provide the nutrients which are required to ensure optimal growth, yield and grape quality: Provided that

7.1.1 the level of fertilization shall not be of such a nature that it will contribute towards the pollution of the water sources through leaching, or that it will lead to excessive growth or foliar density which could favour the incidence of diseases or impair penetration of crop protection remedies during spraying;

- 7.1.2 the results of soil or leaf samples analyses which are taken in the vineyard shall be used as basis to determine the required level of fertilization;
  - 7.1.3 such soil of leaf samples should in the case of sandy soils, be taken at least every three years, and in the case of heavy soils, be taken at least every five years;
  - 7.1.4 phosphorus and potassium fertilization shall only be applied if the analysis results of soil samples and, in the case of potassium fertilization, the yield of the vines, has indicated the necessity therefor;
  - 7.1.5 potassium fertilization on brackish sod shall not be applied in the form of potassium chloride;
  - 7.1.6 the maintenance of the pH level of the soil after the initial application of lime during soil preparation as contemplated in paragraph 2 shall be done on the basis of the analysis results of soil samples; and
  - 7.1.7 nitrogen fertilization shall be applied on the basis of the potential nitrogen yield of the soil and the growth vigour of the vines, and shall in the case of sandy soils be applied in portions and in accordance with the seasonable requirements of the vines.
- 7.2 Organic fertilization in the form of manure or compost shall not contain any unprocessed sewerage waste.
  - 7.3 The quantity of organic fertilization applied to a vineyard shall not exceed the nitrogen requirements of the vines.
  - 7.4 Foliar feeding may only be used where it is not possible to provide in the nutrient requirements of the vines by means of normal soil applications.
  - 7.5 Fertilization of a vineyard by means of an irrigation system which is installed there may only be done if the system is designed for this purpose, and it will not result in the application of more nutrients than would by means of normal soil applications provide in the nutrient requirements of the vines.

## **8. Irrigation**

- 8.1 The irrigation system which is used in a vineyard shall be of such a nature that -
  - 8.1.1 it will ensure the efficient distribution of water in the soil type concerned without causing waterlogging, salination, the compaction of the surface layer of the soil or other environmental problems;
  - 8.1.2 susceptibility for diseases will not be enhanced by means of regular drenching of the grape bunches or the creation of an excessively humid micro-climate; and
  - 8.1.3 the quality of the grapes will not be detrimentally affected by regular wetting of the vines.
- 8.2 Irrigation scheduling shall be done in accordance with the water retention ability of the soil and the physiological stage of development and water consumption of the vines, and be based

on measurements by means of evaporation pans, tensiometers or neutron moisture meters, or on observations of growth factors.

- 8.3 An irrigation system shall at all times be utilised in accordance with the specifications thereof, and be maintained in a manner which will ensure the efficient operation thereof.

## **9. Vine development and trellising**

- 9.1 Vines shall be developed in such a manner that sufficient, well-spaced shoots will be available to ensure the desired foliar density, yield, air movement, exposure to sunlight and efficient application of crop protection remedies.
- 9.2 The trellising system in a vineyard shall be sufficient to accommodate the growth vigour of the vines, ensure a good distribution of shoots, leaves and bunches and avoid a too dense canopy.
- 9.3 Pruning wounds on arms and trunks shall be covered with a suitable wound sealer in order to prevent wood rot.

## **10. Growth stimulants**

- 10.1 The chemical stimulation of physiological processes in the vine to produce better quality bunches -
- 10.1.1 shall be restricted to the essential; and
- 10.1.2 may only be applied by means of growth stimulants which are registered for use on vines.
- 10.2 When the use of a growth stimulant in a vineyard is unavoidable, it must be administered strictly in accordance with the directions for use indicated on the package thereof
- 10.3 Notwithstanding the provisions of paragraphs 10.1 and 10.2, the Board may, when determining requirements and conditions for the registration of a farm in terms of this Scheme, prohibit or restrict the use of a particular growth stimulant or stimulants which are not reconcilable with integrated production, on farms where grapes intended for the production of IP wine are grown.

## **11. Integrated pest management**

- 11.1 The chemical control of pests and diseases which occur in a vineyard shall be restricted to the essential;
- 11.1.2 may only be applied by means of agricultural remedies which are registered for use against the pests and diseases concerned in vineyards; and
- 11.1.3 shall at all times be applied in conjunction with management practices and measures aimed to minimise or eliminate the use of such agricultural remedies, and to grow grapes in harmony with the environment.

- 11.2 If the regular and comprehensive monitoring of such pests and diseases and the natural predators thereof proves that intervention in nature by means of chemical control is unavoidable -
- 11.2.1 the effect of the appropriate agricultural remedy on other pests and diseases, and on the natural predators of the pests and diseases which occur in the vineyard, shall be determined beforehand in order to ensure that the application thereof will not enhance the occurrence of such other pests and diseases nor cause the extermination of such natural predators; and
  - 11.2.2 the appropriate agricultural remedy must be administered strictly in accordance with the directions for use indicated on the package thereof.
- 11.3 Notwithstanding the provisions of paragraphs 11.1 and 11.2, the Board may, when determining requirements and conditions for the registration of a farm in terms of this Scheme -
- 11.3.1 specify the methods to be used in connection with the monitoring and control of specified pests and diseases in vineyards; and
  - 11.3.2 prohibit or restrict the use of a particular agricultural remedy or remedies which are not reconcilable with the principles of integrated production, on farms where grapes intended for the production of IP wine are grown.

## **12. Handling of harmful chemicals**

- 12.1 Harmful chemicals must -
- 12.1.1 be handled strictly according to the prescriptions on the packaging;
  - 12.1.2 be stored and locked up in a separate store; and
  - 12.1.3 be kept on record, including records of supplies, usage and disposal thereof.
- 12.2 Handlers of harmful chemicals must -
- 12.2.1 receive thorough training in the handling thereof;
  - 12.2.2 undergo medical examinations annually; and
  - 12.2.3 use prescribed protective clothing during the handling and application thereof.
- 12.3 Excess mixed harmful chemicals may not end up in rivers trenches, or storage dams or pollute the environment in any other way.
- 12.4 Empty containers or unused harmful chemicals must be disposed of in such a way that it can not be harmful to people or pollute the environment in any way.
- 12.5 Notwithstanding the provisions of paragraphs 12.1, 12.2, 12.3 and 12.4 the Board may, when determining requirements and conditions for the registration of a farm in terms of this Scheme, lay down further and more restrictive prescriptions regarding the handling of harmful chemicals.

## **ANNEXURE 2**

### **GUIDELINES WITH REGARD TO THE APPLICATION OF INTEGRATED PRODUCTION IN CELLARS WHICH ARE UTILISED FOR THE PRODUCTION OF IP WINE**

#### **1. Management**

- 1.1 A cellar which is utilised for the production of wine which is intended for sale as IP wine shall be managed in such a manner that actions such as the incorrect application of equipment, apparatus and chemicals, the lavish use of water and electricity and the discharge of untreated cellar waste in nature is avoided.
- 1.2 The immediate proximity of the cellar shall be maintained aesthetically acceptable by keeping it free of discarded or used material or equipment, as well as of junk and waste which could be a breeding place for insect pests.
- 1.3 The interior of the cellar shall be arranged in such a manner that it complies with the requirements of the legislation with regard to occupational health and safety.
- 1.4 The noise levels within the cellar shall be within the limits required by the legislation with regard to occupational health and safety.
- 1.5 The staff who are working in the cellar shall wear the necessary protective overwear which is required by the legislation with regard to occupational health and safety.

#### **2. Conveyance of grapes**

- 2.1 Grapes as well as transported juice being intended for the production of IP wine shall as soon as possible after harvesting be brought to the cellar.
- 2.2 During conveyance to the cellar such grapes or juice may not come into contact with substances which are deemed unsafe for human consumption or may detrimentally affect the quality of the wine which is produced therefrom.

#### **3. Crushing and processing of grapes**

- 3.1 Grapes as well as transported juice shall be processed as soon as possible after having been delivered at the cellar.
- 3.2 The bringing in of rotten grapes into the cellar must be limited as far as possible: Provided that this provision shall not apply to grapes with Botrytis infection.
- 3.3 Off-loading bins and crushing apparatus in the cellar shall be covered with inert material or be made from stainless steel in order to prevent contamination.
- 3.4 Grapes which are intended for the production of white wine shall as soon as possible after crushing be cooled down before being settled.

#### **4. Addition of substances to wine**

- 4.1 The addition of substances to must and wine in the cellar shall be restricted to the indispensable.
- 4.2 Only those substances specified in the Act as permissible additions to wine, may be thus added to must and wine in the cellar.
- 4.3 Such additions in the cellar may only be made in accordance with the provisions of the Act.
- 4.4 Fermentation in must and wine in the cellar may only be effected with the aid of selected natural yeasts.
- 4.5 Notwithstanding the provisions of paragraphs 4.1, 4.2, 4.3 and 4.4 the Board may, when determining requirements and conditions for the registration of a cellar in terms of this Scheme, prohibit or restrict the use of a particular substance or substances which are not reconcilable with integrated production, in cellars which are utilised for the production of IP wine.

## 5. Use of preservatives

- 5.1 The application of sulphur dioxide as a preservative for wine shall as far as possible be restricted, and preference shall be given to substitutes such as ascorbic acid.
- 5.2 Notwithstanding the provisions of the Act, the total sulphur dioxide content of wine of a class specified in column 1 of the table hereunder, which is intended for sale as IP wine, shall at the time when it is ready for marketing, not exceed the maximum limit specified in column 2 of the table opposite thereto:

<b>Class of wine</b>	<b>Maximum sulphur dioxide content</b>
1	2
Extra dry wine, dry wine, rose wine and blanc de noir wine	120 mg per litre, but preferably less than 100 mg per litre
Semi-dry wine, semi-sweet wine, late harvest wine, special late harvest wine, sweet natural wine, and perle wine	140 mg per litre, but preferably less than 100 mg per litre
Sparkling wine (all types)	80 mg per litre, but preferably less than 60 mg per litre
Dessert wine and liqueur wine (all types)	80 mg per litre, but preferably less than 60 mg per litre
Noble late harvest wine	240 mg per litre, but preferably less than 200 mg per litre

## 6. Settling agents, filtering material and clarifying agents

- 6.1 Only natural settling agents, filtering material and clarifying agents which are environmentally friendly may be used in the cellar in connection with the production of IP wine.
- 6.2 Notwithstanding the provisions of paragraph 8.1, the Board may, when determining requirements and conditions for the registration of a cellar in terms of this Scheme, prohibit or restrict the use of a particular settling agent, filtering material or clarifying agent or other

agents which are not reconcilable with the principle of integrated production, in cellars which are utilised for the production of IP wine.

## **7. Refrigeration**

7.1 The refrigeration equipment which is used in the cellar shall be of such design that it will ensure optimal cooling with the minimum use of power.

## **8. Cleansing agents**

8.1 Only environmentally friendly agents may be used for cleansing processes in the cellar.

8.2 Notwithstanding the provisions of paragraph 8.1, the Board may, when determining requirements and conditions for the registration of a cellar in terms of this Scheme, prohibit or restrict the use of a particular cleansing agent or agents which are not reconcilable with integrated production, in cellars which are utilised for the production of IP wine.

## **9. Water management**

9.1 The water which is used in the cellar for purposes of cooling and the cleansing of tanks and other apparatus and equipment shall as far as possible be purified and recycled.

9.2 Such water may only be treated with environmentally friendly chemicals, and only be discharged in nature after having been treated to such extent that it complies with the applicable standards required by the legislation with regard to the discharge of effluent water.

## **10. Disposal of cellar waste**

10.1 Cellar waste such as wine-lees, filtering material and fining lees may not be discharged in nature in unprocessed form.

## **11. Bottling and packing**

11.1 If cork stoppers are utilised in the cellar as bottle closures, it may only be treated beforehand with environmentally friendly substances.

11.2 Capsules which are used in the cellar shall be manufactured from a high quality degradable material.

11.3 The outer containers and other material used in the cellar for the packing of receptacles of wine shall as far as possible be manufactured from recycled material and in itself also be recyclable and biodegradable.