

## VINEYARD MANAGEMENT PLAN

---

### 1. **Conservation plan – Criterion B.33**

**Develop and implement a conservation plan to organize and detail all actions necessary for the conservation of natural ecosystems and resources.**

**The plan includes:**

Objectives of the actions to be implemented

Quantitative targets and parameters

Time-bound management actions

Resources and responsible personnel to be assigned

Actions for:

- a. No intervention and conversion of forests and ecosystems
- b. Conservation of non-pest or non-invasive plants or animals
- c. No contamination
- d. Natural restoration and succession of native vegetation and ecosystems, if applicable

### 2. **Erosion control plan – Criterion B.4**

### 3. **Soil management plan – Criterion C.3**

**Develop and implement a soil management plan to identify specific practices for conserving soils, preventing soil loss and degradation, and maintaining and enhancing soil fertility.**

1. Keep soil dust to a minimum by mowing shortly after a rain
2. All garden waste put in drive rows where topsoil is minimal

## The plan includes:

the identification off all areas susceptible to erosion, compaction, or other types of soil degradation (see Criterion B.4)

the identification of naturally low-fertility or other types soils that require special management to maintain or improve crop health

soil conservation actions to minimize soil degradation and restore soil health for the areas identified in points a and b, and for the vineyard in general

a soil sampling plan for laboratory analysis based on soil types and production goals, and the correct sampling techniques for the desired analysis

records of soil and water analysis within the last three years

## 4. Nutrient management plan – Criterion C.9

### Develop a nutrient management plan and incorporate it into their soil and fertility management plan, that:

identifies nutrient needs and fertilization timing

keep records of tissue and fruit quality analysis

includes actions to enhance fertilization management and nutrient availability for vines

documents for all nutrient applications and any changes and/or deviances from the plan

is in accordance with the requirements of the Minister's Regulation – Code of Practice for Agricultural Environmental Management

## 5. IPM plan – Criterion D.1

### Use template from [Resources tab on website](#) or be sure your plan includes the following:

The identification of weeds, pests and diseases that occur in the vineyard based on observations, historical records, technical documents, and expert advice. Each pest and disease should be described in terms of their interaction with grapevines, life cycles, natural predators, preferred food and environment requirements; and any other information as considered relevant

A description of the physical, biological, chemical and other prevention and control mechanisms for each weed, pest and disease

The identification of intervention thresholds, those levels of pest and disease outbreaks that trigger different control mechanisms for each pest and disease

A weed, pest and disease monitoring plan, as described in criterion D.2

Methods for observing and, where necessary, calculating the size of pest populations and disease outbreaks, and the damage they are causing in vineyards

The frequency of vineyard pest and disease monitoring activities

Tools and systems for recording monitoring data and later analyzing them to determine if pests and diseases are exceeding thresholds

Include a field inspection to monitor insect, mite, weeds, disease and vertebrate pests during growing season and according to the stage of vine growth

The mechanisms to be employed for capturing information about weed, pest and disease prevention and control and analyzing it to determine the results and future actions

A training plan that defines the training that vineyard management and workers will need to correctly implement the IPM program

A system to track the beneficial effects of biodiversity—insects, plants, and animals—so that these can be protected and increased, and that the negative effects of production activities on them can be avoided

## IPM GUIDELINES

---

When synthetic pesticides are used, growers ensure to:

- a. use the substances with the lower toxicity and persistence as possible
- b. apply the treatments to the smallest possible area to achieve control (localized applications)
- c. implement measures and/or physical barriers to avoid spray drift
- d. respect all buffer zones next to water bodies and ecosystems

Keep records of all pesticide applications including:

- a. application place (vineyard blocks) and area (acres or ha)

- b. application date and time of day
- c. commercial name and active ingredient
- d. total quantity applied and amount of water or other mix ingredient, if applicable
- e. application method, and equipment identification if available
- f. target pest
- g. crop stage and harvest date
- h. weather conditions
- i. person that recommended the application

Protect bees and other beneficial insects during pesticide applications by:

- a. not spraying on or close to beehives and other potential forage and habitat resources for beneficial organisms
- b. not applying pesticides harmful to pollinators when plants (including weeds) are in bloom
- c. applying pesticides at times when pollinators are not as active, for example, at dusk and dawn

Manage or eliminate offsite spray drift from pesticide operations by:

- a. training of pesticide application teams on drift minimization or avoidance techniques
- b. using the proper equipment, especially nozzles, for the types of substances applied
- c. monitoring conditions such as wind speed, humidity, radiation, and rainfall, and applying when these are optimum to avoid spray drift

Comply with buffer zone and no-application zone requirements as indicated in pesticide labels, and in the SWBC standard

Maintain and calibrate mixing and application equipment at the beginning of each season and where relevant whenever water output/ha changes based on height of canopy being sprayed

Ensure that mixing, loading, transporting, and cleaning pesticide and fertilizer application equipment do not contaminate the environment through spillage or the discharge of leftover pesticide mix, or

equipment wash water to the environment. Vineyards have infrastructure in place to capture, and if necessary, treat all equipment wash water and retain and clean up chemical spills

Store pesticides safely in a locked building, with ready access to safety and fire protection equipment. Storage areas are constructed to prevent liquid products from flowing directly into streams or rivers in the case of spills, a fire or an explosion

Store pesticides in their original containers. If containers are damaged, pesticides are stored in another suitable container and a replacement label is obtained from the supplier

Triple wash all empty pesticide containers and use wash water as part of the pesticide mix to be applied. Empty pesticide containers are returned to vendors for recycling. If vendors do not accept empty containers for products they have sold, vineyards store containers in a locked area until such time they can be disposed of at authorized collection sites or according to legally sanctioned methods

Ensure that liquid and dry materials are stored separately, and that dry materials cannot be contaminated by spilled products

Ensure that a spill clean-up kit is available in each pesticide or hazardous substances storage

Ensure that emergency response numbers are readily available to all workers in the operation

Implement a safety training policy and program for field workers handling pesticides that:

- a. focuses on reducing the risks to farm worker safety
- b. is designed and carried out by competent professionals in the field
- c. includes information about applicable law and regulations, the substances being used and all applicable emergency procedures
- d. includes records of all training activities, their contents, and their participants

Participate in regular training activities to keep up to date about integrated pest management approaches and techniques

Demonstrate that they implement biological, mechanical and physical pest control measures based on pest monitoring results and thresholds before considering pesticides use

Rotate pesticide mode of action by target pest, excluding herbicides, sulfur, oil, and bio fungicides, to avoid increasing pest resistance to pesticides

Evaluate the results of the IPM program and pest control activities after every growing season. The evaluation includes a review and analysis of:

- a. Pest monitoring activities
- b. Pest or disease damage
- c. Weather conditions when the pest or disease outbreak occurred
- d. Prevention and control measures applied, including pesticide application data
- e. Crop yield and grapes quality
- f. Any other relevant information as necessary

**See the BCWGC Best Practices Guide for guidance on how to conduct evaluation activities for pest management.**

## HEALTH AND SAFETY PLAN – CRITERION F.11 - 13

Place warning signs for potential hazards throughout their facilities, and make sure that the signs are in a language that is understood by workers and visitors.

Provide personal protection equipment (PPE) free of charge to workers according to the identified health and safety risks for the tasks. Workers are trained in the proper use of PPE and are required to use it while carrying out tasks with identified risks. Employees that handle hazardous substances and chemicals receive PPE as indicated by the label of the substances applied or handled or the material safety data sheet (MSDS), whichever is stricter

Have access to facilities to bathe and change their clothes after finishing working with these substances and before leaving the workplace at the end of the workday