



DEMAIN



Risk prevention in vineyards

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Important note

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Title of work 1: Los Actúa del Issga. Prevención de Riesgos en Viñas

Authors: Héctor González Nóvoa, Estrella Cancio Fernández and Juan Luis Casas López (Technicians from the “Galician Security Institute and Occupational Health” (Instituto Gallego de Seguridad y Salud Laboral - ISSGA)
Edited by: Instituto Gallego de Seguridad y Salud Laboral (ISSGA www.issga.xunta.es). Santiago de Compostela, Spain, 2015

Available on: https://libraria.xunta.gal/sites/default/files/downloads/publicacion/2015_135-15_15-00412_-_prevencion_de_riesgos_en_las_vinas.pdf (Accessed on February 12, 2024)

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Title of work 2: Los Actúa del Issga. Prevención de riesgos laborales en vendimia

Authors: Héctor González Nóvoa, Estrella Cancio Fernández and Juan Luis Casas López (Technicians from the “Galician Security Institute and Occupational Health” (Instituto Gallego de Seguridad y Salud Laboral - ISSGA)
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The context

Viticulture, like all other sectors of agriculture, is experiencing a lack of labor and this lack has been exponential since the start of the Covid crisis. This chronic lack of labor affects throughout Europe and in particular the wine-growing areas. On the other hand, waves of migration also affect all of Europe. These immigrants, considered low-skilled, often have some agricultural know-how and frequently want to work in viticulture because many already know agricultural tasks and show a good predisposition to this type of work. These people can be a significant pool of labor to cope with changes expected in the vine-wine sector. Furthermore, the countries of the European Union have the moral obligation to facilitate the social and labor integration of these people. In this sense, education and job training are a powerful integration tool.

Prevention of occupational risks in viticulture

Viticultural workers perform a wide variety of tasks and are mainly carried out on vineyards. Among these tasks are pruning, harvesting, tillage, installation of trellises, irrigation, fertilization, or the use of phytosanitary products, among others. Moreover, the workers are subjected to adverse environmental factors due to diverse meteorological conditions. Therefore, workers will be exposed to a high risk derived from both the use of agricultural machinery, as well as the use of phytosanitary products and other agrochemical substances.

The wine sector can be divided into two types of activity: the agriculture and the industrial and each of them will determine different risk factors. On the one hand, there are the risks associated with vine cultivation and, on the other, the risks associated with the winemaking process, which includes the reception of the grapes in the winery until the wine is bottled. This report is focused on agricultural activities. Main occupational risks associated with viticulture are the tractor (and machinery), phytosanitary products and fertilizers, outdoor work and manual tasks.

Objective

The objective of this report is to identify the main risk factors related to tasks in the vineyards, as well as to provide recommendations to reduce the risks. This will ensure that workers feel safe, avoid accidents and be happier in the development of their work, and this is a way to facilitate the integration of migrants wishing to join wine-growing estates by means of adapted training materials.

The fiches/ the sheets

The attached sheets summarize relevant information for risk prevention in tasks commonly carried out in viticulture. Each sheet identifies the risk associated with the task and gives recommendations to prevent accidents.



Risks in viticulture associated with the tractor (and machinery).



Hazard identification: Tractor. Circulation and work

How to reduce the risk



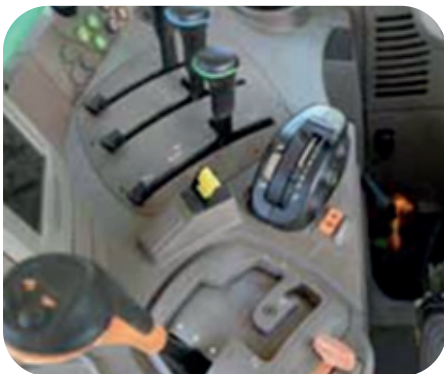
Check that your tractor has anti-tilt devices. Verify that you have a seat belt and fasten it.



Adjust the seat to your characteristics and check the view towards the outside and that you can use the controls comfortably.



Never remove warning or safety signs.



Before using any equipment you must be trained in its use and how to do it safely.



Monitor the good condition of mirrors, tires, lights, brakes, clutch, etc., and that the maintenance schedule is complied with.



Lock the brake pedals to prevent rollover when pressing one pedal alone.



If you refill diesel or oil, take extreme care to avoid spills on the hot parts of the vehicle.



To avoid running over yourself, immobilize and turn off the vehicle every time you leave the driving position.



Do not remove the hot radiator cap.



Hazard identification: Tractor. Circulation and work

How to reduce the risk



No one should put their hands near the hitch area when the tractor is moving.



Report any failure or deterioration of the transmission shaft protections.



Wear tight-fitting clothing to avoid being caught by the drive shaft.



Do not make sudden movements that destabilize the load.



Get off the tractor on the opposite side to that on which the rest of the vehicles are traveling.



If possible, choose the most appropriate access to join the traffic routes.



Hazard identification: Tractor. Circulation and work

How to reduce the risk



If you have a cabin, keep the doors and windows closed, especially if you are working.



Do not go close to the edges of slopes and terraces, leave at least 1 meter of separation.



Estimate the weight of the load before moving it, do not exceed the maximum allowed.



Make changes in direction slowly and with the implement raised.



Keep in mind that narrow tractors have a higher risk of overturning!



Drive slowly and adapt your speed to the state of the terrain, watching for obstacles, intersections, etc.



Always travel with the implement in the lowest transport position.



On steep slopes, move in the direction of the slope, from top to bottom, forward and with the gear engaged.



If you must climb steep slopes, do it in reverse, especially with implements.



Hazard identification: Tractor. Circulation and work

How to reduce the risk



The warning and alarm devices, rotating beacon, etc., must function correctly.



Slowly bring the tractor as close to the trailer as you can and place it on flat, firm surfaces with appropriate chocks.



When transporting, mark the ends of the implements and reduce the width as much as you can.



When reversing, stay where the driver can see you. Never in the line of travel of the vehicle.



Make sure you have the appropriate trailer for the power and weight of the tractor.



Monitor the presence of people around the tractor.



When you leave the machine, do so with the equipment well immobilized and in a stable place

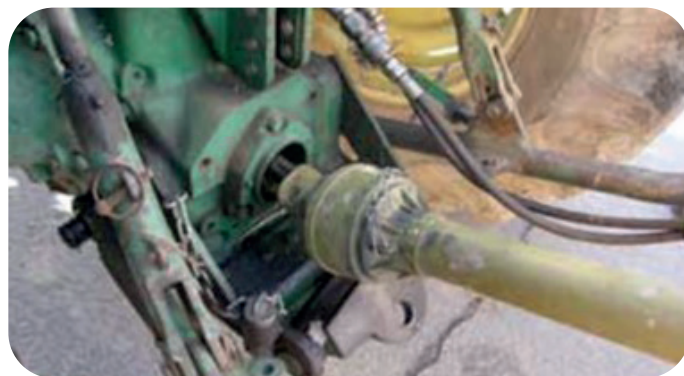


Hazard identification: attaching/detaching machinery and implements

How to reduce the risk



Make sure you have the right implement for the power and weight of the tractor.



Never remove the protection of the power take-off.



Place the implements on flat, firm surfaces with appropriate brackets and slowly bring the tractor as close to them as you can.



If there is a person between the implement and the tractor, do not engage reverse gear.

If the hitch is done with other people, make sure that there is good coordination with them and that they can see and hear each other. At all times everyone must know what others are doing. No person should be located between the implement and the tractor, it will always be placed perpendicular to the hitch.





Hazard identification: storage of machinery and implements

How to reduce the risk



Eliminates residual energy from implements at the end of the work and before starting to unhook.



Leave the implement stored on the ground, accessible for easy use.



Prepare the support before unhitching the implement.



Prepare the support before unhitching the trailer. Leave the trailer parked on solid ground, accessible for easy use and so as not obstruct other activities.



The implement must be well stabilized, with good supports adapted to the equipment, stable, firm, and resistant. Only use supports specifically manufactured to secure the implement.



Hazard identification: machinery and implements during use

How to reduce the risk



Before using the machinery or implement make sure you know the dangers of misuse.



Do not allow anyone to be within the range of action of the tractor-implement.



Attention! the action radius may be greater than the working radius and there may be projections from the implement.



Never remove implement protections, screens, bars, casings, etc.,



If you stop the tractor, rest the implement on the ground.



If any problem arises during the task, turn off the tractor and rest the implement on the ground.



During the task you must circulate avoiding pits or ditches, and obstacles.



If dust is raised, carry out the task so that the wind blows it away from your face.



Use the personal protective equipment recommended for the operation.



Hazard identification: Brush cutter, trimmers, motor hoe and chainsaw

How to reduce the risk



Before using them, make sure you know how they work and that the equipment is in good use.



Check that the protections on the edges, blades, and casing of the hoe train are in optimal condition to work.



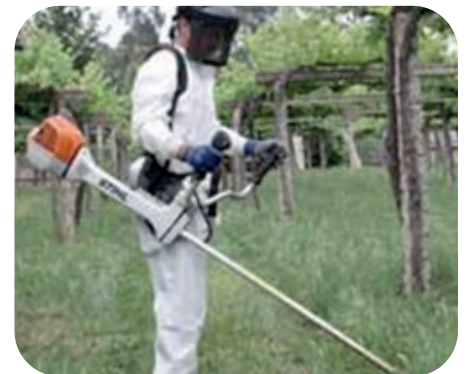
Do not release your hands from the handles before the equipment comes to a complete stop.



If any work jams appear, turn off the engine and do not manipulate any device until it stops completely.



Refuelling will be carried out in a suitable place, well-ventilated and away from ignition sources.



Wear tight-fitting clothing, safety glasses, reinforced boots, hearing protection, and a screen when working with the brush cutter or chainsaw.



Do not allow the presence of other people in the vicinity of work.



Before starting the moto hoe, check that it is in neutral, and the power take-off disengaged.



If the ignition is rope-based, use auxiliary elements to pull it: never wrap it in your hand.



Risks in viticulture
associated with
outdoor work.



Hazard identification: Exposure to sunlight and heat

How to reduce the risk



Whenever possible, avoid exposure to direct sunlight.



Try to alternate task under sunlight and heat with others in which you are exposed to lower temperatures and requiring less physical efforts.



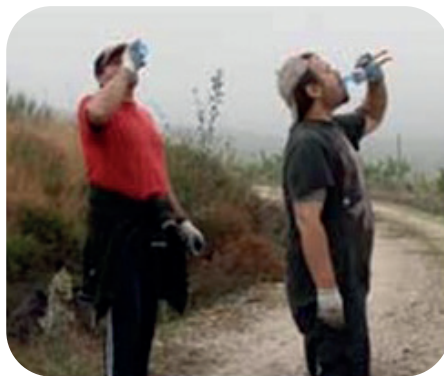
Wear light, breathable work clothes that cover your extremities and head.



If necessary, protect the head and eyes from solar radiation.



Protect exposed skin with sunscreen creams.



Hydrate yourself with isotonic drinks that replace the mineral salts lost through sweat.



Take extreme precautions in case of forecast temperatures above 35° C.



Hazard identification: Exposure to cold and humidity

How to reduce the risk



Organize your work so that you do not expose yourself to cold and humidity for a long time.
Avoid getting clothes wet from sweat or liquid splashes. Replace clothing when wet.



If you work outdoors or are exposed to wind current: wear windproof clothing, especially protect the extremities and wear breathable warm clothing.



Try to alternate jobs involving exposure to the cold with others in which you are not exposed.



Drink hot liquids, avoiding coffee or exciting drinks.



Risks in viticulture associated with manual tasks.



Hazard identification: Same Level Falls

How to reduce the risk



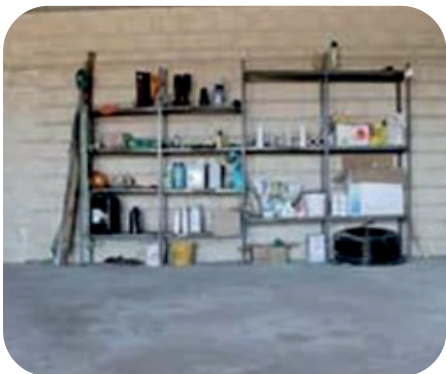
If you can, always carry out work during daylight hours.



Never leave implements, tools, bags, boxes, etc., lying on the ground.



Immediately remove remains of pruning, deadheading, leaf removal, thinning, etc.



Keep the storage area tidy and the circulation routes clean of dust, straw, and grease.



Wear appropriate footwear that supports the ankle, with non-slip soles.



Pay close attention where you stand, the terrain will be irregular, and the vegetation will tend to invade it.



If you establish regular circulation areas, you will have less risk of falling by reducing the irregularities of the terrain and vegetation due to soil compaction.



Always keep in mind the position of the trellis.



Hazard identification: Falls at different level

How to reduce the risk



Get in and out of the tractor cab facing the ladder. Never jump from the cabin to the ground!



Try to keep the tractor ladder clean.



Wear shoes with non-slip soles.



Do not allow anyone to get on trailers or implements unless they have seats provided for it.



Do not let anyone to get on any part of the tractor, only to the passenger seat next to the driver, if there is one.



If you need to access high points when working on a vine, it is preferable to use stable platforms rather than stepladders, boxes, bales, etc.



Do not try to move the ladder while standing on it: go down and move it as many times as necessary to avoid working laterally and increasing the risk of falling.



Never use closed stepladders. Make sure it has an anti-opening safety device.



In natural terrain it is very difficult for all the support points to sit well. It will be unstable!



Hazard identification: Manual tools

How to reduce the risk



Use the appropriate tool for the task: do not use shovels such as hammers, screwdrivers to pry, etc.



Make sure the tool is in good use, well sharpened, with the handle without edges, cracks or gaps, and stored correctly.



Sharp and sharp tools (blades, razors, knives, etc.) must have their dangerous parts protected.



Never put small unsholdstered tools in your pockets.



Keep a safe distance so as not to hit other colleagues with the hoe. To pass a tool, hand it over, don't throw it.



Look for the double electrical insulation symbol on manual equipment or chargers that require electricity.



When using pruning shears, hoes, hammers, knives, saws, pliers, pickaxes, augers, etc., wear gloves against abrasion and pressure absorbers.

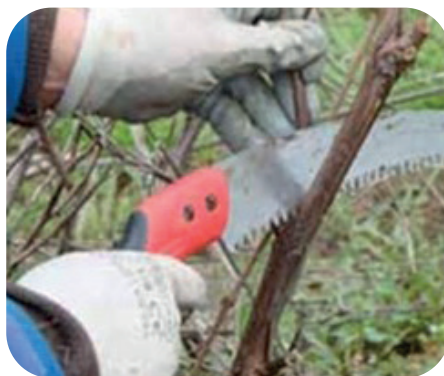


The gloves will also have anti-cut protection for when you work with knives, secateurs, snips, loppers, etc.



Hazard identification: Manual tools

How to reduce the risk



The gloves will have protection against punctures when working with manual augers, secateurs, snips, loppers, picks, etc., and against tearing, when you work with the saw.



Be careful with powered secateurs: anti-cut gloves with blades are not effective enough. It will be necessary to use, and with great caution, metal fingers or specially designed equipment.

For small pruning, use manual secateurs.



Leave the tool placed in the appropriate place to avoid accidents.



Use safety boots with toe caps and reinforced soles when working with hammers, mallets, hoes, picks, augers, etc.



Wear glasses against projections and impacts when using electric scissors, hoes, etc



Hazard identification: Wires

How to reduce the risk



Wear puncture-resistant gloves and goggles or a face shield when working with trellis wires, guides, etc.



Ask for help to lay and tension the wire, always keeping the ends supported.



It is advisable to fix the wire in short sections. The risk zone when the voltage is accidentally released will be smaller and the energy lower.



Use tensioners to tighten the wire, do not do it by twisting the ends.



If you cut a wire, make sure that the two ends you are going to generate are well secured. Ask for help if necessary.



If you can, use a rotating coil holder when unwinding the wire.





Hazard identification: Musculoskeletal disorders and load handling

How to reduce the risk



Reduce the risk of manipulation, organizing your work so that the transport distance is shorter.



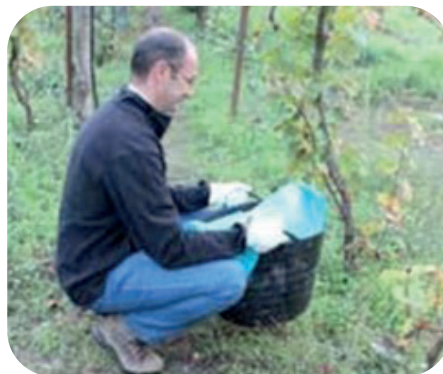
Carry out periodic medical check-ups and report any symptoms you present to the medical service.



Inform the prevention service that you manipulate loads, and you do repetitive work.



Make the most of load transport equipment: tractors, hand trucks, etc.



Wear cut and tear resistant gloves.



Attention! some tools, bags, bundles of shoots, baskets, rolls of wire, backpacks, hoses, etc., can weigh more than 25Kg.



Organized, well-designed and planned storage will also reduce overexertion and awkward postures.



Apply good handling technique and use auxiliary elements that make your work easier.



Make sure that the area you have to travel with a load is free of obstacles and the unloading area clear.



Hazard identification: Musculoskeletal disorders and load handling

How to reduce the risk

1



Ask for help when handling bulky, heavy, or difficult-to-grip loads.

2



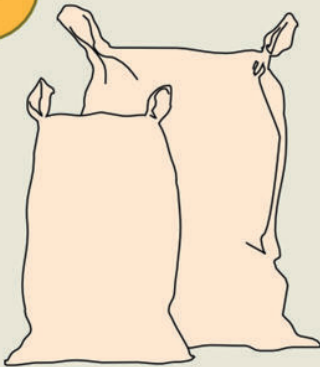
Usual maximum weights:
Usual mal: 25 kg
Usual female: 15 kg

3



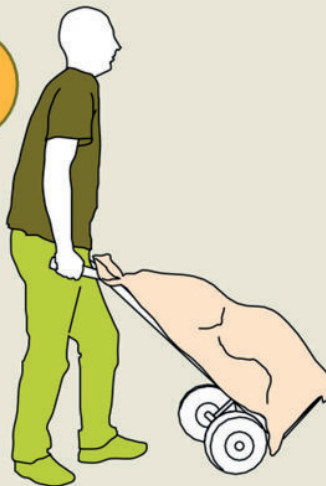
Handle loads adapted to your capacity, with good handles.

4



When the load does not have good handles, limit the maximum load you handle. Elements that may not have a good grip: boxes, bags, etc.

5



Apply good handling technique and use auxiliary elements that make your work easier.

6

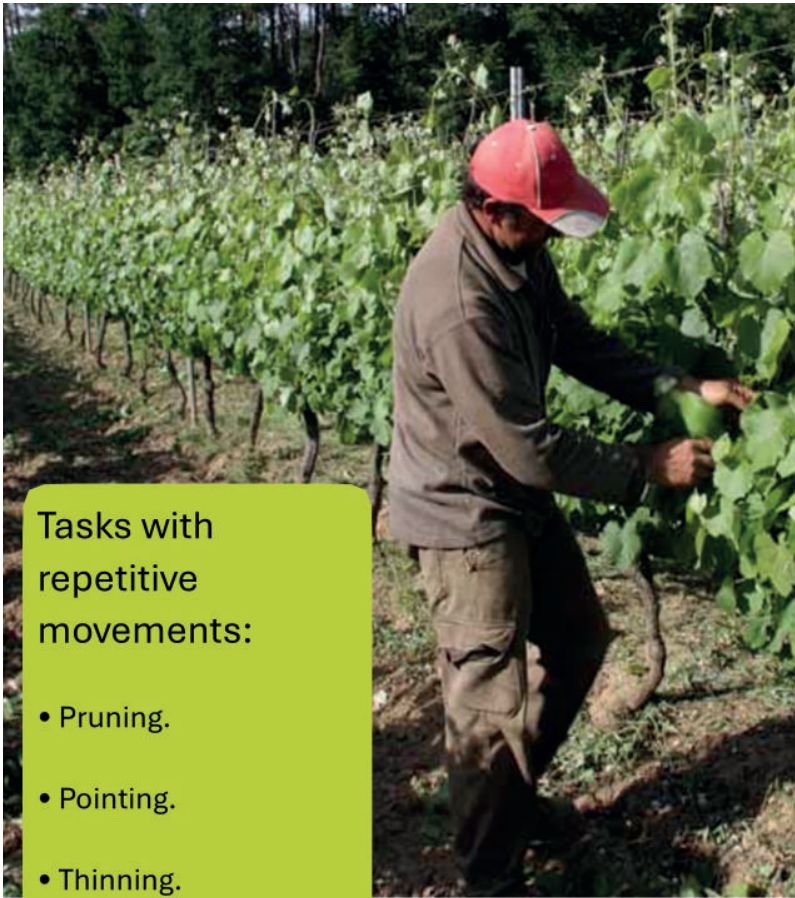


Use your body weight effectively to push or pull objects.



Hazard identification: Musculoskeletal disorders and load handling

How to reduce the risk



Tasks with repetitive movements:

- Pruning.
- Pointing.
- Thinning.
- Dug.
- Posted.
- Manual drilling.



Task with forced postures:

- Work in high vines.
- Grafting, pruning, etc., in low vines.
- Installation of irrigation systems.



Try to use auxiliary elements and the most appropriate tools to make it easier. Wearing safety shoes with impact-resistant toes and non-slip soles.

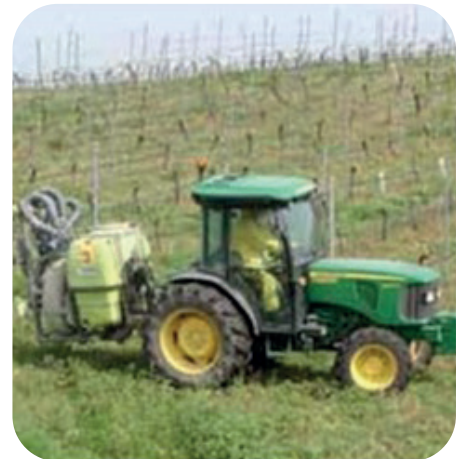


In tasks with repetitive movements, alternate tasks as much as possible and respect rest periods and, if you can, use techniques and devices that minimize them.



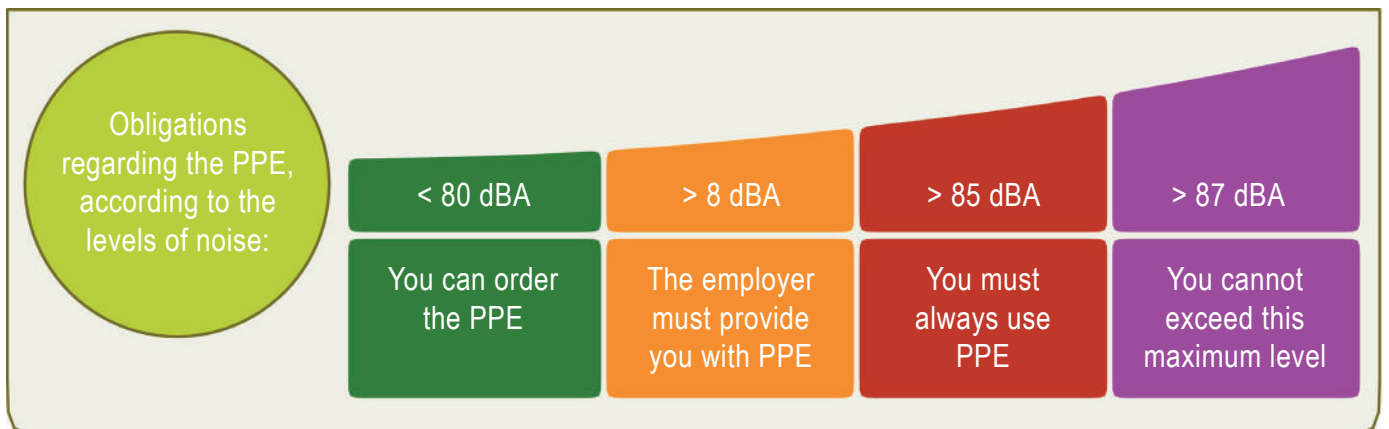
Hazard identification: Musculoskeletal disorders and load handling

How to reduce the risk



Report problems in the operation of equipment (brush cutter, motocultor, phytosanitary applicator, etc.), which produce excess noise or vibrations.

For whatever reason, use the appropriate hearing Personal Protective Equipment (PPE), and keep the doors of the tractor cabin closed.





Risks in viticulture
associated with
phytosanitary products
and fertilizers.



Hazard identification: Application of phytosanitary products

How to reduce the contact risk

When you see the following pictograms and risk phrases on the label:



GHS07

Sign of exclamation

H312: Harmful in contact with skin
H315: Causes skin irritation
H317: May cause allergic skin reaction
H319: Causes serious eye irritation



GHS05

Corrosion

H314: Causes severe skin burns
and serious eye damage
H318: Causes serious eye damage

These symbols correspond to:

- a) some combination of the fungicides commonly used to treat mildew, powdery mildew, blak-rot, iesca, excoriose, aspergillus, botrytis or anthracnose,
- b) mixtures of insecticides with the active substances cypermethrin +2 methylchlorpyrifos or chlorpyrifos,
- c) herbicides with glyphosate, oryzalin, terbutylazanine or oxyfluorfen.

Avoid any contact with skin and eyes. Protect them!



Protect skin and eyes with covers fitted on the outside of waterproof gloves and boots and a mask with a screen.



If you suffer accidental contact with the preparation, wash the affected area with plenty of water for at least 10 minutes. For eyes, use a shower or wash your eyes for the same amount of time.



Do not bring your hands to your face during work. Remove all traces of these products by washing well after working.



Hazard identification: Application of phytosanitary products

How to reduce the risk of inhalation, aspiration

There will be an extreme risk when you see the following risk phrases and pictograms on the label:



GHS08

Danger to health

H304: It can be fatal if ingested and enters the respiratory tract.



GHS06

Skull and shinbones crusades

H330: Causes severe skin burns and serious eye damage

H318: Causes serious eye damage

This type of substances are in:

- a) fungicides with chlorothalonil, azoxystrobin, cupric hydroxide and mixtures with pyraclostrobin, and
- b) insecticides with permethrin+methylchlorpyrifos and chlorpyrifos, and
- c) herbicides with oxyfluorfen.

Protect the airways whenever there is the most minimal exposure!
Filters will not be enough against pesticides and herbicides mechanics.
Use filters against organic vapours!

In many of the other common fungicides and herbicides you will see:



GHS07

Sign of exclamation

H332: Harmful if inhaled
H335: It can irritate the respiratory tract.

With these phytosanitary always remember



- Whenever you are going to use them, keep in mind that the risk of exposure increases if they are applied as aerosols.
- Use respiratory protection.
- Choose the least dangerous!

How to reduce the Risk of prolonged or repeated exposures



GHS08

Danger to health

H373: Prolonged or repeated exposure may damage certain organs.



With the famoxadone fungicide you will see the following risk phrase and the following pictogram:

Use it as few times as possible and for the shortest time possible and always with the correct equipment of individual protection.



Hazard identification: Application of phytosanitary products

How to reduce the reproduction risk

With some preparations of insecticides with chlorpyrifos herbicides with oxyfluorfen and the following pictograms and risk phrases:



GHS08

Danger to health

H360: May harm the fetus and impair fertility.

Pregnant women cannot be exposed
With the fungicides with cyproconazole, myclobutanil or mancozeb will appear:



GHS08

Danger to health

H361: Suspected of impairing fertility or harming the fetus.

Pregnant women: High alert!
In addition, some personal protective equipment does not suitable for use during pregnancy.

How to reduce the cancer risk



GHS08

Danger to health

H350: Can cause cancer
H318: Suspected of causing cancer



This symbology appears in:
a) fungicides with folpet, kreoxim methyl, or chlorothalonil,
b) insecticides with chlorpyrifos or
c) herbicides with oxyfluorfen

Avoid any exposure.
There are no safe levels of exposure.





Hazard identification: Application of phytosanitary products

How to reduce the risk



You already know this well if you took the applicator training course, received advice on integrated pest management or information from the seller.



The information on the label can be supplemented with that of the safety data sheet. Read the product label paying attention to the risk and caution phrases!



If you have the capacity to make decisions, use physical and, in some cases, biological methods, preferably phytosanitary ones. Adjust fertilisation, tillage, irrigation and drainage of the plantation to reduce their use.



Conduct inspections to detect attacks in their early stages and pay attention to warning stations.



If you can, choose the phytosanitary product that presents the lowest risk. Look at the H3XX phrases. As a rule, avoid those that end in 0, 1 and 4, as well as EUHXXX and, if the exposures are going to be prolonged or repeated, H372 and H373.



Even with the same danger, powders are usually more difficult to control than liquids.



Keep products in their original packaging and with their label. Never change them, especially to containers that could be confused with food or drinks.



Transport the containers in a vertical position, well seated, closed, secured and without encountering abrasive surfaces, edges or substances that could damage the container.



Store phytosanitary products in an exclusive place or in a locked cabinet, where extreme temperatures are not reached, dry, ventilated and separated from the rest of the materials.



Hazard identification: Application of phytosanitary products

How to reduce the risk



The material for phytosanitary products will be only for phytosanitary products and will not be confused with other materials for domestic use.



Keep the phytosanitary container open for as long as necessary and check that the closure is airtight and preferably screw-on.



Prepare the right amount that you have planned to consume and in the right recommended concentration and just before application. Do it in a ventilated place, avoiding splashes and with auxiliary elements for stirring.



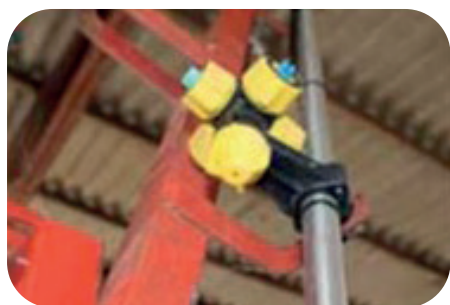
If possible, mix directly in the application tank and with dosing devices. Combine the water from all the rinses in the same container.



Pour the phytosanitary over half the water you will need, to dilute or suspend, and then add more water and finish the homogenization.



Once full, keep an eye on the tank.



Check that the spray is homogeneous and uniform on each nozzle and that there are no leaks in the connections and pipes. Never unclog it with your mouth!!!



Protect skin and eyes with tight-fitting covers on the outside of gloves and waterproof boots and mask with glasses.



Protects the airways. The mechanical filter may be insufficient.



Hazard identification: Application of phytosanitary products

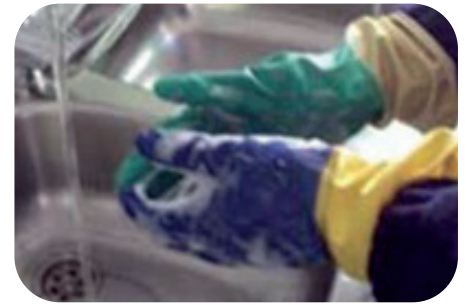
How to reduce the risk



The application is normally done by spraying. Monitor the direction and strength of the wind; stand in the opposite direction to the direction of the sprayed product. Always be the furthest from you.



Do not drink, smoke, or put any object or your hands in your mouth, especially when you work and as long as you do not wash, after working, with phytosanitary products.



Wash your hands frequently with gloves on to avoid spreading dangerous products.



Clean all machinery and work equipment well every time you finish an operation.



Use conditioned containers to introduce damaged and/or empty containers. Deliver them to the waste manager as soon as possible.



Do not take contaminated clothing home and in any case, always wash it separately from the rest of the clothing.



Wash or safely dispose of personal protective equipment as phytosanitary waste: gloves, boots, covers, masks, glasses, etc.



Respect the safety time before entering the treated area.



See a doctor in case of ingestion, contact or inhalation, carrying the product label or safety data sheet.



Hazard identification: Application of biological products

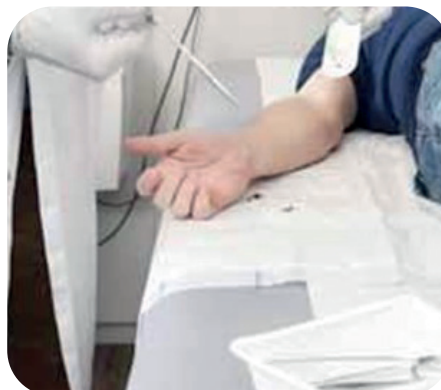
How to reduce the biological risk



- In field work such as those in the vineyard, with the possibility of contact with manure, you are exposed to the risk of contracting tetanus.
Get vaccinated!
- Tetanus and other diseases can be contracted more easily through breaks in the skin; Disinfect them immediately no matter how small they are and protect them from infectious contacts.
- Use personal protective equipment if you work with manure or on recently fertilized land: boots, gloves and a mask against particles.



If you suffer the bite of an animal clean the wound, go to the doctor and if necessary, resort to tetanus vaccination.





Hazard identification: Allergies

How to reduce the risk because allergies



Allergies: Insect bites ...

If you already know that you develop an allergic reaction to wasp stings, protect your skin with long clothing.

Always keep identification clearly visible to alert your colleagues of this fact and carry the necessary treatment with you. Perform the recognition special medical scientific for this risk.

Allergies: Rubber, latex ...

Give importance to symptoms such as: reddish skin, swelling during exposure, blisters, eczema, itching, etc.

See if these symptoms reduce after exposure, especially on weekends and if they begin when you return to work, and report this fact to the medical service.

Avoid contact with natural rubber or latex.

If you must wear gloves, ask for them to be made of a material to which you are not allergic or interchangeably wear cotton gloves



Hazard identification: alcohol and other drugs

How to reduce the risk because alcohol and other drugs



Do not reduce your ability to concentrate through artificial means. Your safety and that of others is in your hands.

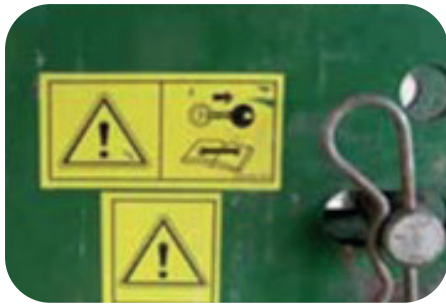
- Avoid alcohol, tobacco and drugs.
- Do not work under the influence of alcohol or drugs.



Others
recommendations.



Signalling individual protection equipment



• Signage is a complementary measure that informs you about risks and ways to reduce them.

• Never remove warning or safety signs.

Signs in the form of panels

Meaning	Characteristics
Obligation	Circle shape Blue background White pictogram
Prohibition	Red color with band diagonal (like traffic) White background Black pictogram
Warning	Yellow background Black outline Black pictogram
Fire	Parallelogram shape Red color Blank information
Recue and first aid	Parallelogram shape Green color Blank information

Some personal protective equipment (PPE)



Gloves:
They protect hands against mechanical attacks (cuts, punctures, etc.) and avoid contact with irritating elements



Glasses:
If you are going to scrape, sandblast or use a burr, avoid projecting it into your eyes.

Face mask:
Respiratory protection prevents inhaling dust.



Hearing protection:
When using machinery that produces noise, it is necessary to use protective earplugs or helmets.



Thermal protection:
The cold is a bad companion. Cover yourself with thermal and comfortable clothing.



Firsts aid

Collaborate for keep the first kit in check and equipped.



• Fractures

You will recognize a fracture by the following signs:

- Inability to move the affected limb.
- Pain at the level of the fractured area.
- Sometimes deformation or simple swelling.

Do not try to straighten the limb or manipulate the fracture. Immobilize the fracture, always holding the upper and lower joint.

In the case of an open fracture, apply a sterile dressing to the wound.

In spinal fractures it prevents flexion of the spine.



• Wasp or bee stings

1. If you know you are allergic, take medication quickly.
2. If you do not know if you are allergic and you notice symptoms such as swelling in areas away from the bite, on the face and neck, difficulty breathing and/or dizziness, go to the doctor immediately.



• Burns

- Wash with running water.
 - Do not break the blisters.
 - Cover with dressing.
- In large burns, do not throw away clothing except in the case of a chemical burn.



• Wounds

- Wash under running water and dry.
- Apply some antiseptic.
- Cover with bandage - plaster



• Hemorrhages

- Put the injured person to bed.
- Elevate the part of the wound, rising above the rest of the body.
- Apply continuous pressure to the bleeding site

• Poisoning:

- By inhalation

Ventilate quickly, and well protected, remove the affected person from the contaminated area.

- Digestive

- Collect the safety data sheet and go to the doctor.
- If it was an acid it may be good to drink water with baking soda.
- If it was a base, drink acidic liquids like fruit juices.
- If it was other chemical agents ingest active charcoal.

• Chemical contacts:

- With the skin

Wash the affected area for 15 minutes, cover it and go to the doctor with the safety data sheet.

- With the eyes

Use the eyewash for 15 minutes and then go to the doctor.



The biggest complication that can occur is cardiorespiratory arrest. You need to recognize it and know how to do cardiopulmonary resuscitation (CPR).

1° Determines the awareness of the accident do by moving it and talking to it.

2° Open the respiratory channel by pulling the head back and up and check that he is breathing.

3° If the result is negative, notify an emergency agencies and initiate CPR.

4° Start with cardiac compressions, interspersing air insufflations into the lungs of the injured person.

Sequence:

2 air insufflations for every 30 cardiac compressions.

Rhythm:

100 cardiac compressions per minute.

Periodically checks the patient's condition.



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