

Beekeeping Certificate III
Participants Learning Guide

RTE3713A Carry out workplace OHS procedures



Australian Government

**Department of Agriculture,
Fisheries and Forestry**



**Australian Honey Bee
Industry Council**

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Judith Nettleingham and Bruce White assert their moral rights to be identified as the authors of this publication.

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What this learning guide covers

This learning guide will help you meet the requirements of the unit of competency:

- *RTE3713A Carry out workplace OHS procedures*

You could undertake this unit together with any other unit.

Resources you will need for this unit

For this unit of competency, you should have:

- Participants Learning Guide (this booklet)
- Participants Assessment Worksheets
- access to a variety of beekeeping workplaces (eg bee site, honey shed, extracting facility).

The Participants Learning Guide is designed to introduce the topics and to provide you with some practical and written activities which will allow you to develop both your knowledge and skills in each area.

The Participant Assessment Worksheets include activities that you will be completing as part of your formal assessment for this unit.

Please record as much detail as you can. Your responses to these activities will form part of your assessment.

You will need to send the Participants Assessment Worksheets to your assessor. Check with your assessor to find out if they need you to submit this Participants Learning Guide as well.

Introduction to this unit

In this unit, you will learn about:

- OHS policies and procedures
- identifying workplace hazard and controlling risks
- observing safe practices during work operations
- arrangements for maintaining health and safety of all people in the workplace.

Before you start this training you should be confident about your skills to:

- follow workplace procedures
- work with others to identify hazards, control risks, and follow other OHS enterprise requirements
- read safety warning signs
- observe and direct others to follow safe working operations
- participate in arrangements for maintaining the health and safety of all people in the workplace
- accurately record incidents in the work area in accordance with OHS legal requirements.

You should know about:

- employee and employer responsibilities under your state/territory OHS legislation
- your workplace procedures relating to hazards, fires, emergencies, accidents, and risk control
- OHS signs and symbols relevant to area of work.

1. Identifying OHS risks in beekeeping and honey production

Why this task is important

In common with many other agricultural occupations, beekeepers face some occupational health and safety risks.

These can be identified and managed, so that all people involved in the beekeeping activity can work safely.

Each state and territory has legislation and regulations that require employers to protect the health and safety of their employees, contractors and any members of the public that may come into contact with their operations.

Hazards and risks

What is a hazard?

A hazard is anything that has the potential to harm the health or safety of a person.

Hazards can arise from:

- poor work design or practices
- the use of plant and substances
- the workplace environment
- inappropriate management systems and procedures
- human behaviour.

What is risk?

Risk is the significance of the hazard in terms of likelihood and severity of any possible injury or illness.

Risks in beekeeping

If you were to ask people who are not beekeepers what the biggest OHS hazard for beekeepers would be, 99 times out of 100, they will answer “bee stings”.

In fact, while bee stings can be an important problem, especially for those who have a life-threatening allergy to bee venom, there are many other factors in beekeeping which are more likely to be OHS hazards than bee stings.

Tasks performed

One of the simplest ways to identify the OHS hazards in beekeeping activities is to break down the work of a beekeeper into its different areas, such as:

- managing bees (in hives)
- collecting swarms
- collecting honey crops
- extracting honey
- treating pests and diseases of honeybees
- moving and transporting hives
- selling honey
- constructing and repairing bee hives.

Equipment

Then you can look at the equipment that is used, for example:

- honey extracting equipment
- bee blowers
- trucks
- fork lifts
- pallet loaders
- winches
- hoists
- beekeepers tools, such as hive tool
- office equipment
- power tools
- chemicals, including fumigants.

Location and work environment

Then look at where the work is carried out, for example:

- outdoors, such as at a bee site in a forest

- inside a honey shed
- in an office
- in a truck or other vehicle transporting beekeepers and their equipment from site to site.

Work organisation and human behaviour

Finally, there may be other things that you need to consider, such as:

- any aspects of this work that could involve members of the public
- any trainees or other employees new to either the workplace or to beekeeping
- if the work being done with other people, or alone
- if the work being done in a remote or isolated area
- how long someone is 'on duty'
- if people working at night.
- are any of the work sites in areas prone to flood or bush fire?
- are there any particular behaviours or habits that you have or which you have noticed amongst your co-workers that might make a difference to the safety of your work and your workplace?

Activity

Pick one major task you perform and identify any hazards associated with it.

Complete the table below:

Task:

Where performed:

Equipment used:

Work organisation/human behaviour factors:

Hazards:

An under-rated hazard

One of the most significant hazards for beekeepers is lifting heavy boxes and equipment. A full super can weigh about 30 kilos!

The best way to lift anything heavy is to use mechanical means such as a hoist or a forklift. If this is not possible, then you can lift the heavy item with another person making sure that the load is balanced between both of you.

How to lift safely.....

While workplace design and use of mechanical lifting aids are preferable, there are occasions when manual lifting is unavoidable.

In these cases safe lifting techniques are essential to avoid back injury.

Step 1

LOOK over your path of travel making sure it is clear.



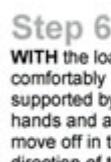
Step 5

LIFT the load using leg muscles and allow the load to rest in fully extended arms.



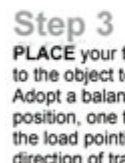
Step 2

APPROACH the load and size it up (weight, size and shape). Consider your physical ability to handle the load. If in doubt, get assistance. Use hand and foot protection.



Step 6

WITH the load comfortably supported by the hands and arms, move off in the direction of travel.



Step 3

PLACE your feet close to the object to be lifted. Adopt a balanced position, one foot beside the load pointing in the direction of travel, the other behind the load.



Step 7

SETTING the load down is just as important as picking it up. Using leg muscles, lower the load by bending your knees. When the load is securely positioned release your grip.



Step 4

BEND your knees to the degree that is comfortable and get a good handhold. Maintain normal spinal curves. Tighten stomach muscles. Commence to lift the load keeping it close to the body.

Source: Workplace Health & Safety Queensland

Assessing risks

Once you have identified the OHS hazards involved in your beekeeping work, then you can assess them to determine the risk.

This means working out the likelihood of each hazard occurring and what the consequences of that might be. Once you know this, then you can then plan how to manage the risks associated with the task.

An example – slipping on a wet surface

Let us say that you have paid attention to people moving around the extracting room for a day and noticed that when the equipment is cleaned out after use, that water tends to lie around in a particular spot where there is a shallow depression in the floor. This spot is right in the place where people need to walk and as a result they walk water onto the surrounding floor area.

Therefore you have identified a hazard of slipping on wet floors.

The next step is to consider how likely that hazard is and how severe the consequences of it might be.

Twice you saw people lose their balance, but neither time actually falling over.

Having identified that there is a likelihood of injury, you must then decide how severe the consequences might be.

You can do this in a number of ways:

- ask the people who slipped if they have been injured
- check through workplace records of ‘near misses’ and injuries to see if there is any evidence of injury from this hazard.

Consider if the hazard could cause:

- permanent disability, ill health or death;
- long term illness or serious injury;
- require medical attention with someone off work for several days; or
- someone to require first aid.

Then, decide if the likelihood of the hazard occurring is:

- very likely - (could happen any time)
- likely - (could happen sometime)
- unlikely - (could happen but very rarely)
- very unlikely - (could happen but probably never will)

Let’s assume that you have identified that there is a likely risk of slipping at that particular spot and that the consequences of slipping could be serious enough to cause an injury that could require medical or hospital treatment.

The level of risk is usually plotted on a matrix to show the relative likelihood and severity of the risk (the estimated risk of slipping on a wet surface is marked on the matrix with an X):

L I K E L I H O O D	VERY LIKELY				
	LIKELY		X		
	UNLIKELY				
	VERY UNLIKELY				
		MINOR	MEDIUM	SEVERE	EXTREME/ CRITICAL
	SEVERITY				

The next step is to consider what to do about this risk.

Activity

Pick one hazard from those you identified in the previous activity.

Assess the hazard and decide on its degree of likelihood and severity.

Use the matrix below to plot where this risk lies:

L I K E L I H O O D	VERY LIKELY				
	LIKELY				
	UNLIKELY				
	VERY UNLIKELY				
		MINOR	MEDIUM	SEVERE	EXTREME/ CRITICAL
	SEVERITY				

Managing risk

Firstly, attempt to eliminate the hazard.

Then, if the hazard cannot be eliminated for whatever reason, control the risk.

Hierarchy of control

There is a 'hierarchy of control' that is used to manage risk, including OHS risk.

The hierarchy is based on the principle that the best way to control a risk is to control the source of the risk, through 'engineering controls'. Engineering controls include:

- design - try to ensure that hazards are 'designed out' when new materials, equipment and work systems are being planned for the workplace.
- remove the hazard or substitute less hazardous materials, equipment or substances.
- adopt a safer process - alterations to tools, equipment or work systems can often make them much safer.
- enclose or isolate the hazard – use machinery guards or remote handling techniques.
- provide effective ventilation –install or upgrade local or general exhaust ventilation systems.

Using engineering controls is the preferable approach, because these controls are less subject to human error or forgetfulness and because they are less disruptive and uncomfortable for people working in the area.

If an engineering control is not practical or possible, then the next best approach is to establish 'administrative controls', such as

- job rotation or increase variety of tasks to reduce exposure to hazards or boredom that might lead to inattention
- making sure routine maintenance and housekeeping procedures are up to date
- providing training on hazards and correct work procedures

- personal protective equipment, such as bee proof suits, non slip shoes or boots may also be an important way to help control some risk.
- However, risk management should never rely solely on the use of PPE.

An example – slipping on a wet surface

1. Can this hazard be eliminated? Yes:

- the floor can be resurfaced and levelled
- alternative traffic routes can be put in place so people do not have to walk past the spot.

2. Can the hazard be controlled? Yes:

- signs can be put up warning people of the risk of slipping when the surface is wet
- people can wear suitable non-slip footwear
- cleaning of equipment can be rescheduled so that it is done with as few people in the area as possible.

Activity

Using the hazard you identified earlier, answer the following questions:

Can the hazard be eliminated?

If yes, how could this be done?

If no, what controls can you recommend?

2. Adapting OHS policies and procedures

A safe workplace is no accident!

In a safe workplace, everyone knows the potential hazards and what actions must be taken to eliminate them or control them. Some ways in which this can happen include:

- documenting OHS policies and procedures to cover work activities and hazards
- making sure everyone understands the OHS policies and procedures, especially what is to be done in the event of one of the hazards occurring
- putting up safety signs in the workplace, such as:



- making sure you have the Material Safety Data Sheet for every chemical you have in your workplace
- making sure all chemicals and other substances that could cause ill health or injury are labelled properly and listed on a register kept at your workplace
- inspecting the workplace, including the buildings, equipment and vehicles to make sure they are all correctly maintained and in good working order
- making sure everyone knows how to use safety equipment, such as machinery guards, eye wash facilities
- practicing emergency procedures, for example evacuation in the case of a fire

- keeping records of all accidents and 'near misses'.

Warning the public

In some states, beekeepers are required to display a sign showing that they have an apiary on crown land. For example, when bee site permits are issued by the NSW State Forests, National Parks and Wildlife, or the Rural Lands Protection Boards, beekeepers must display a warning sign such as the one shown below:



Source: Bruce White

What is an OHS policy?

An OHS policy is a broad statement that says who is responsible for managing and monitoring OHS and lists any particular objectives for OHS, such as reducing vehicle accidents or days off work due to work-related illness or injury.

It is supported by a set of OHS procedures and work instructions that together should cover what must be done to eliminate or minimise risks in the workplace.

OHS procedures

These may also be described as safe work procedures. These need to cover what needs to be done when carrying out tasks that may have risks or when working in a hazardous environment. For example, when cleaning an extracting room floor, an OHS procedure would explain:

- the purpose of the task and associated possible hazards
- who is to carry out the task and any special training or other requirements that they must meet
- the equipment needed to carry out the task and how it should be used
- what chemicals can be used and any safety precautions that need to be followed for those chemicals
- how to safely deal with excess water, for example by using a squeegee or mop or 'sweep' the excess water towards the drainage point in the floor
- requirement to place hazard warning signs to alert others to the hazard of excess water
- emergency procedures to be followed (e.g. washing out chemicals on skin or eyes).

OHS information sheets

Some organisations also prepare information sheets or posters about OHS hazards. The following is an example of a written information sheet prepared by an organisation for its staff and students. You can see that it:

- gives some information about the hazards and the risks
- covers who is likely to be affected
- provides recommendations about how the risks can be managed by individuals
- directs people where to find out more information.

Activity

Using the hazard you identified earlier, prepare a simple information sheet or poster to explain to co-workers how to work safely to minimise or control the risks. *3. Work safely with others*

Working with others

OHS legislation places specific responsibilities on employers, but a safe workplace requires the active involvement of all people who work in the business or organisation.

Many workplaces have special committees that are responsible for monitoring OHS and recommending changes that will improve workplace OHS.

Businesses can use other arrangements that suit their operations and staffing arrangements and numbers. The important thing is that all employees must have a way to have their OHS concerns brought to the attention of 'management' and that employees are consulted about how risks will be managed in the workplace.

For more information about workplace OHS consultation, check with your state or territory OHS department or agency. For example, NSW Workcover produces a handbook on OHS consultation that can be downloaded from <http://www.workcover.nsw.gov.au/Publications/LawAndPolicy/CodesofPractice/ohsconsult.htm>

Final activities and assessment

Now that you have completed all the activities in this Learning Guide, take some time to review the OHS requirements that apply to your work.

When you are ready, you can complete the assessment tasks that are listed in the Participants Assessment Worksheets for this unit of competency.

Useful references

Bee Agskills: A Practical Guide to Farm Skills, 2007, NSW Department of Primary Industries

The Bee Book: Beekeeping in Australia, 2nd edition, 2005, Peter Warhurst and Roger Goebel, Queensland Department of Primary Industries and Fisheries available from <https://www.publications.qld.gov.au/>, or phone 1800 801 123.

B-Qual <http://www.b-qual.com.au/>

Australian Safety and Compensation Council <http://www.ascc.gov.au/>

Health Insite http://www.healthinsite.gov.au/topics/Workplace_Safety

WorkCover ACT <http://www.workcover.act.gov.au/>

WorkCover NSW <http://www.workcover.nsw.gov.au/default.htm>

NT WorkSafe <http://www.worksafe.nt.gov.au/>

Workplace Health and Safety

Queensland <http://www.deir.qld.gov.au/workplace/index.htm>

WorkCover SA <http://www.workcover.com/home.aspx>

Workplace Standards Tasmania <http://www.wst.tas.gov.au/>

WorkSafe

Victoria <http://www.workcover.vic.gov.au/wps/wcm/connect/WorkSafe>

WorkSafe Western Australia <http://www.docep.wa.gov.au/WorkSafe/>