

Training Package	Rural Production (RTE03)	HSC Requirements and Advice
Title	Observe and report on weather	
Unit code RTE2503A	This competency standard covers the process of observing and reporting on weather and climate conditions for an agricultural, horticultural or land management enterprise. Competency also requires the application of skills and knowledge to recognise adverse weather and climate conditions and to monitor, record and report on weather and climate information. The work is likely to be carried out with limited supervision, within enterprise guidelines.	HSC Indicative Hours 10

Evidence Guide				
What evidence is required to demonstrate competence for this standard as a whole?				
<p>Competence in monitoring weather and climate conditions requires evidence of the ability to monitor and interpret weather information, communicate warnings and concerns, and identify resource requirements and dangers. In addition, it requires an ability to minimise loss and damage to staff, livestock, crops, natural resources, property and produce, and to implement alternative livestock or other programs and continue to monitor weather changes.</p> <p>The skills and knowledge required to monitor weather conditions must be transferable to another rural workplace. For example, if competence is evident in monitoring weather and climate conditions for a large sheep property, it should also be evident for a small cattle property or a different climatic zone.</p>				
What specific knowledge is needed to achieve the performance criteria?	What specific skills are needed to achieve the performance criteria?	Are there other competency standards that could be assessed with this one?	Assessment guide	HSC Requirements and Advice
<p>Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:</p> <ul style="list-style-type: none"> • working knowledge of climate and weather • weather and climate conditions and its impact upon farming and grazing activities • effects of wind and rain on wind chill • effects of wind shear and wind chill exposure 	<p>To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complimentary skills are required. These include the ability to:</p> <ul style="list-style-type: none"> • relate forecasts to impact on current operations and activities • relate weather and climate conditions and changes to decision-making and prevention of loss and damage • monitor physical signs in the context of available information • communicate information. 	<p>This competency standard <u>could</u> be assessed on its own or in combination with other competencies relevant to the job function.</p>	<p>There is essential information about assessing this competency standard for consistent performance and where and how it may be assessed, in the Assessment Guidelines for this Training Package. All users of these competency standards must have access to the Assessment Guidelines. Further advice may also be sought from the relevant Sector Booklet.</p>	<p>Key Terms and Concepts</p> <ul style="list-style-type: none"> • Bureau of Meteorology • climate • enterprise • forecasting techniques • forecasts • grazier alert • meteorological conditions • monitor weather and climate • preventative action • regular updates • relevant personnel • reporting and recording • weather • weather and climate conditions

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<ul style="list-style-type: none"> • relevant legislative health and OHS requirements, especially as they relate to weather and climate monitoring and preparations for hazardous weather • enterprise and industry policies for monitoring weather and climate conditions, and recording and reporting weather and climate conditions. <p>If applicable to the enterprise:</p> <ul style="list-style-type: none"> • effects of wind chill on metabolism of animals • effects of prolonged dry periods on pastures and animal production, and natural resources. 				<ul style="list-style-type: none"> • weather maps • weather station • weather updates • weather warning • wind chill • wind shear • work programs • work tasks.

Element	Performance Criteria	Range of Variables	HSC Requirements and Advice
1 Check weather and climate information	1.1 Weather and climate information is checked to determine likely conditions.	<p>The Range of Variables explains the range of contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in training and assessment may depend on the work situations available.</p> <p>For more information on contexts, environment and variables for training and assessment refer to the Sector Booklet.</p> <p>Where might weather and climate information be sourced?</p> <p>Radio, T.V., Internet, email, fax, telephone, newspapers, word of mouth, weather station on property and interpretive tools.</p> <p>What might weather and climate information include?</p> <p>Reports, warnings, data collected from property weather station, and grazier alerts.</p>	<p>Learning experiences for the HSC must address:</p> <p>Types of weather and climate information including:</p> <ul style="list-style-type: none"> • reports • warnings • data collected from property weather station • grazier alerts • Bureau of Meteorology. <p>Sources for weather and climate information including:</p> <ul style="list-style-type: none"> • radio • television • the internet • email • fax • telephone • newspapers • word of mouth • weather station on property • interpretive tools • Bureau of Meteorology.
	1.2 Changed weather and climate situations are recognised.	<p>What warnings might be issued or relevant?</p> <p>Fire, flood, wind, rain, hail, storm, cyclones, heat waves, snow, dust, frost, gale, grazier alerts, and rapid changes in temperature or weather conditions.</p>	
	1.3 Likely impact of changes in weather and climate are anticipated in respect to work tasks, safety of others, property, natural resources and local environment.		<p>Learning experiences for the HSC must address:</p> <p>Changes in weather and climate including:</p> <ul style="list-style-type: none"> • flood • wind • rain • hail • storm • cyclones • heat waves • snow • dust

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	1.4 Report is made to supervisor of anticipated impact of weather and climate.		<ul style="list-style-type: none"> • frost • gale • grazier alerts • rapid changes in temperature. <p>Effect of changes in weather and climate on the following:</p> <ul style="list-style-type: none"> • work tasks • personal and other persons' safety • property • livestock • crops • natural resources • the local environment.
2 Carry out preventative action	2.1 Information and advice are promptly disseminated to relevant personnel .	<p>Who might be considered to be relevant personnel?</p> <p>Other staff and colleagues, owners and managers, and neighbours.</p>	<p>Learning experiences for the HSC must address:</p> <p>Verbal and written methods of reporting/ disseminating information and advice.</p> <p>Reporting information and advice to:</p> <ul style="list-style-type: none"> • other staff and colleagues • owners and managers • neighbours.
	2.2 Preventative action is determined according to the known effects on livestock, crops and work tasks.	<p>What preventative actions might be reviewed?</p> <p>Provision of shelter, shedding sheep, covering fodder, moving fodder, fire fighting equipment, auxiliary power, supplies, moving stock, securing equipment and buildings, preparing fire breaks, and assured water supply, rescheduling work tasks.</p>	<p>Learning experiences for the HSC must address:</p> <p>Effects of the following on livestock, pastures, animal production and natural resources:</p> <ul style="list-style-type: none"> • wind shear • wind chill exposure • prolonged dry periods • rain. <p>Preventative actions including:</p> <ul style="list-style-type: none"> • provision of shelter • shedding livestock • covering or moving fodder • installing fire-fighting equipment • providing access to auxiliary power

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			<ul style="list-style-type: none"> • stockpiling supplies • moving stock • securing equipment and buildings • preparing fire breaks and assured water supply • rescheduling work tasks.
	2.3 Actions to minimise loss and damage are implemented.	What loss and damage may need to be minimised? To staff, livestock, crops, fodder, produce, buildings sheds and/or other physical resources.	Learning experiences for the HSC must address: Strategies to prevent loss, damage or harm to: <ul style="list-style-type: none"> • staff • livestock • crops • fodder • produce • property.
	2.4 Livestock, horticultural or crop management program or schedule of work tasks are adjusted and revised according to weather and climatic changes.	What warnings might be issued or relevant? Fire, flood, wind, rain, hail, storm, cyclones, heat waves, snow, dust, frost, gale, grazier alerts, and rapid changes in temperature or weather conditions.	Learning experiences for the HSC must address: Development of appropriate work programs and activities which adapt to extreme weather conditions including: <ul style="list-style-type: none"> • heat • cold • heavy rainfall • strong winds.
3 Monitor weather and climate	3.1 Regular updates are accessed to determine ongoing suitability of current programs.	Where might regular updates be obtained? Radio, T.V., Internet, email, fax, telephone, newspapers, word of mouth, weather station on property, and interpretive tools.	Learning experiences for the HSC must address: Sources of regular updates including: <ul style="list-style-type: none"> • radio • television • the internet • email • fax • telephone.
	3.2 Viability of livestock, horticultural or crop management practices are reviewed to ensure suitability within meteorological conditions.		Learning experiences for the HSC must address: Identification of prevailing climatic conditions and their impact on commercial decisions and activities.

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	3.3 Research on forecasting techniques is undertaken to maintain currency of information.		Learning experiences for the HSC must address: Forecasting techniques including: <ul style="list-style-type: none"> • reading and interpreting weather maps • local measurements of temperature, precipitation and air pressure. Sources of research including: <ul style="list-style-type: none"> • Bureau of Meteorology.
	3.4 Relevant information is documented and recorded according to enterprise requirements.		

What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where

0 = not required 1 = perform the process 2 = perform and administer the process 3 = perform, administer and design the process

1. How can communication of ideas and information (2) be applied?	In discussing conditions and changes with weather and climate information agencies and colleagues.
2. How can information be collected, analysed and organised (2) ?	In analysing and interpreting data from weather and climate information sources on weather predictions and changes.
3. How are activities planned and organised (2) ?	To plan activities and resources to minimise impact of adverse weather and climate on livestock, crops and staff.
4. How can team work (2) be applied?	To collate all available information on weather and climate, and to organise resources and minimise loss and damage.
5. How can the use of mathematical ideas and techniques (2) be applied?	To analyse and interpret weather and climatic condition, and changes in weather and climate.
6. How can problem-solving skills (2) be applied?	To minimise impact of adverse weather and climate, and to implement appropriate tactics and strategies when weather and climate changes unexpectedly.
7. How can the use of technology (2) be applied?	To access a range of information resources and record information.