

## **EXPLANATORY STATEMENT**

Issued by the authority of the Secretary of the Department of Agriculture, Water and the Environment

*Export Control Act 2020*

*Export Control (Animals) Amendment (Northern Hemisphere Summer Prohibition) Rules 2022*

### **Legislative Authority**

The *Export Control (Animals) Amendment (Northern Hemisphere Summer Prohibition) Rules 2022* (the Amendment Rules) are made by the Secretary of the Department of Agriculture, Water and the Environment (the department) under section 432 of the *Export Control Act 2020* (the Act).

Section 432 of the Act relevantly provides that the Secretary of the department (the Secretary) may, by legislative instrument, make rules prescribing matters required or permitted by the Act to be prescribed by the rules, or that are necessary or convenient to be prescribed for carrying out or giving effect to the Act.

Paragraph 192(1)(b) of the Act provides that an export licence is subject to the conditions prescribed by the rules. Subsection 192(3) relevantly provides, without limiting paragraph 192(1)(b), that the rules may prescribe conditions that are required to be complied with before or after the export of the goods to which the conditions relate.

Subsection 288(4) of the Act provides that the rules may provide that specified functions or powers of the Secretary under the rules must not be delegated, or must not be subdelegated.

Under section 289 of the Act, the Minister may give directions to the Secretary in relation to the performance of the Secretary's functions or the exercise of the Secretary's powers in making rules under section 432 of the Act. Directions given by the Minister to the Secretary are legislative instruments but are not subject to disallowance or sunset. At the time of commencement, a Ministerial direction has not been made under section 289 of the Act for the purposes of the making of rules relating to the export of livestock.

### **Purpose**

The purpose of the Amendment Rules is to amend the *Export Control (Animals) Rules 2021* (the Animals Rules) to revise the absolute prohibition dates for the export of sheep to, or through, the Middle East during the Northern Hemisphere summer. The Amendment Rules also provide for a conditional prohibition period for the export of sheep to certain countries in the Middle East. Where additional conditions are met during the conditional prohibition period, then the export of sheep would be permitted.

### **Background**

Division 4 of Part 2 of Chapter 6 of the Animals Rules prescribes conditions of a sheep export licence that covers export of sheep by sea to the Middle East. Subdivision B of

Division 4 currently provides for a prohibition on the export of sheep to specific places in the Middle East, or via specific waters, during specific periods of time.

The purpose of Subdivision B is to improve animal welfare outcomes by prohibiting the export of sheep from Australia to the Middle East during the hottest, most humid periods of the Northern Hemisphere summer. The Northern Hemisphere summer starts on 1 May and ends on 31 October. The central issues relevant to sheep health and welfare during shipping to the Middle East in the months of May to October are stocking density, ventilation and thermoregulation of the sheep.

The prohibition periods in the Animals Rules are based on analysis from the Bureau of Meteorology in 2019 for 95th percentile ambient wet bulb temperatures (WBTs) at specified locations and routes in the Middle East. Consistent with the Regulation Impact Statement (April 2020), the department determined that voyages to, or through, the Middle East should be avoided if the risk of heat stress was 5 per cent or more. Based on the climatology analysis, the department determined that if 95th percentile ambient WBTs are at 29°C or above (which may result in deck temperatures of 30–32°C WBT due to the metabolic heat created by the animals) for a sustained period, there is an elevated risk of heat stress and adverse animal welfare outcomes. Industry research supports this view. The Australian Livestock Export Corporation Ltd (LiveCorp) and Meat & Livestock Australia (MLA) *Veterinary Handbook for Cattle, Sheep and Goats* (2020) defines important heat stress levels, noting that WBTs above 29°C are considered to be the ‘danger’ risk level for heat stress in sheep.

Using 95th percentile ambient WBTs prevents the export of sheep when there is a 5 per cent or greater likelihood that temperatures experienced on voyages to, through, or at destination ports in the Middle East could cause heat stress in sheep. ‘Heat stress’ refers to excessive heat load. ‘Heat load’ refers to an animal’s thermal balance in response to the cumulative effects of animal factors (long hair, fatness) and environmental conditions (hot and humid weather) on thermal comfort.

In October 2021, as part of the department’s review of the regulatory settings for the export of live sheep to, or through, the Middle East during the Northern Hemisphere summer (the Northern Hemisphere Summer Prohibition Review), the Bureau of Meteorology prepared an updated climate analysis based on 42 years of accumulated data. The updated analysis provides a basis for changes to the current settings in the Animals Rules to more appropriately address the risk of heat stress, as there were occasions when the 95<sup>th</sup> percentile ambient WBTs exceeded 29°C for a sustained period.

The Amendment Rules seek to maintain a sustainable live export trade to the Middle East while also managing heat stress risks in sheep. The amendments are primarily based on the updated climate analysis prepared by the Bureau of Meteorology and incorporate feedback received during the public consultation process (discussed below).

## **Impact and Effect**

The Amendment Rules amend the requirements and regulatory settings in the Animals Rules in relation to the export of sheep to certain destinations in the Middle East, or via certain routes, to reflect improved climatology data.

In April 2020, the department prepared a Regulation Impact Statement for the export of sheep to, or through, the Middle East during the Northern Hemisphere summer (OBPR ref: 23822). As part of that process, the department undertook to review the regulatory settings after two Northern Hemisphere summers (2020 and 2021) to see whether the regulatory objective had been achieved and whether there was any new science.

The Amendment Rules have been prepared as part of the department's review into these regulatory settings and reflect the early outcomes of that review. The Office of Best Practice Regulation (OBPR) has advised that a Regulation Impact Statement is not required for these amendments (ref: OBPR21-01244).

## **Consultation**

On 17 December 2021, the department released a draft report titled '*Review of live sheep exports by sea to, or through, the Middle East during the Northern Hemisphere summer*' (the Draft Report). The draft report was released on the department's Have Your Say website, and public consultation on the Draft Report concluded on 28 January 2022.

The department received over 700 submissions during the public consultation period. The department also met with interested parties to explain the department's findings and recommendations during the consultation period.

Given the high level of interest in the review, the implications for animal welfare and the need to consider the practicalities of any changes to export requirements, the department undertook additional stakeholder engagement during February and March 2022, including with animal welfare organisations, sheep producers, exporters and industry representatives.

While the final report is yet to be released, the Amendment Rules reflect feedback received from the public consultation on the draft report and subsequent stakeholder engagement, including in relation to the additional conditions that apply to exports of sheep to, or through, the Middle East during the conditional prohibition period.

The Amendment Rules particularly affect arrangements at the start of the Northern Hemisphere summer (May and June). Final arrangements for the Northern Hemisphere summer will be addressed in finalising the review. Further amendments to the Animals Rules may be required.

## **Details and Operation**

Details of the Amendment Rules are set out in [Attachment A](#).

The Amendment Rules are a legislative instrument for the purposes of the *Legislation Act 2003*.

The Amendment Rules commence on the day after registration.

## **Other**

The Amendment Rules are compatible with human rights and freedoms recognised or declared under section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*. A full statement of compatibility is set out in Attachment B.

**Details of the *Export Control (Animals) Amendment (Northern Hemisphere Summer Prohibition) Rules 2022***

**Section 1 – Name**

This section provides that the name of the instrument is the *Export Control (Animals) Amendment (Northern Hemisphere Summer Prohibition) Rules 2022* (the Amendment Rules).

**Section 2 – Commencement**

This section provides for the commencement details for the Amendment Rules.

The table in subsection 2(1) provides that the Amendment Rules commence on the day after the instrument is registered on the Federal Register of Legislation.

The note below the table provides that the table relates only to the provisions of the Amendment Rules as originally made. It would not be amended to deal with later amendments of the Amendment Rules. The purpose of this note is to clarify that the commencement of any subsequent amendments would not be reflected in this table.

Subsection 2(2) provides that any information in column 3 of the table is not part of the Amendment Rules. This clarifies that information may be inserted in column 3 of the table, or information in it may be edited, in any published version of the Amendment Rules.

**Section 3 – Authority**

This section provides that the Amendment Rules are made under the *Export Control Act 2020* (the Act).

**Section 4 – Schedules**

This section provides for the amendment or repeal of instruments as set out in a Schedule to the Amendment Rules. This enables the amendment of the *Export Control (Animals) Rules 2021* (the Animals Rules) (see Schedule 1 below).

## Schedule 1—Amendments

### *Export Control (Animals) Rules 2021*

Part 2 of Chapter 6 of the *Export Control Act 2020* (the Act) provides for the grant of an export licence to a person to carry out a kind of export operations in relation to a kind of prescribed goods.

Paragraph 192(1)(b) of the Act provides that an export licence is subject to the conditions prescribed by the rules. Subsection 192(3) relevantly provides, without limiting paragraph 192(1)(b), that the rules may prescribe conditions that are required to be complied with before or after the export of the goods to which the conditions relate.

Part 2 of Chapter 6 of the Animals Rules prescribes conditions of a livestock export licence and is made for the purposes of paragraph 192(1)(b) of the Act. Division 4 of Part 2 of Chapter 6 of the Animals Rules prescribes conditions of a sheep export licence that covers exports of sheep by sea to the Middle East. Division 4 relevantly includes Subdivision B (prohibition on export to specific places).

Items [1] to [4] in this Schedule amend Subdivision B of Division 4 of Part 2 of Chapter 6 of the Animals Rules, and are made for the purposes of paragraph 192(1)(b) of the Act.

Various provisions in the Animals Rules and this Schedule refer to the ***Australian Standards for the Export of Livestock (ASEL)***, which is defined in section 1-6 of the Animals Rules as the document titled *Australian Standards for the Export of Livestock* published by the department as it exists from time to time. As set out in a note following that definition, in 2021, the ASEL could be viewed on the department's website (<http://www.awe.gov.au>).

Subparagraph 432(3)(a)(i) of the Act provides that, despite subsection 14(2) of the *Legislation Act 2003*, the rules may make provision for or in relation to a matter by applying, adopting or incorporating, with or without modification, any matter contained in the document published by the department titled *Australian Standards for the Export of Livestock*, as in force or existing from time to time.

As outlined in section 6-11 of the Animals Rules, nothing in Division 4 of Part 2 of Chapter 6 of the Animals Rules is intended to limit a condition or restriction in the ASEL to which the export of sheep is subject. However, to the extent of any inconsistency between a condition or restriction in the ASEL and a condition in the Animals Rules, the Animals Rules prevail.

### **Item [1] – Section 1-6**

Section 1-6 of the Animals Rules provides definitions of various terms.

This item inserts a definition for the term ***heat-tolerant sheep breed*** into section 1-6. ***Heat-tolerant sheep breed*** is defined as Awassi, Damara, Dorper, or a breed of sheep (other than a Merino or a breed of sheep that is descended from a Merino) that is approved in writing by the Secretary. This definition is relevant to the amendment made by item [4] of this Schedule, which inserts new section 6-14B.

Scientific studies have shown that the Merino breed and Merino crossbreeds are not well-adapted to hot climates and therefore, it is not appropriate for such sheep breeds to be approved as being a heat-tolerant sheep breed. Where heat-tolerant breeds other than the Awassi, Damara and Dorper breeds are to be exported from Australia, and the Secretary considers that scientific research concludes that the sheep breed is well-adapted to hot climates, then the Secretary may decide to approve the sheep breed as being a ***heat-tolerant sheep breed*** for the purposes of this definition. If the Secretary approves a sheep breed as a ***heat-tolerant sheep breed***, it is intended that the name of the breed will be published on the department's website.

A decision made by the Secretary to approve a sheep breed as a ***heat-tolerant sheep breed*** is unsuitable for merits review because it is a decision of broad application. That is, the decision will not be directed towards the circumstances of particular persons, but is intended to apply generally to the community by identifying further breeds of sheep for the purposes of the definition in the future if there is evidence to show that the breed is heat-tolerant. The Administrative Review Council has recognised that it is justifiable to exclude merits review in relation to decisions of this nature (see paragraph 3.3 of *What decisions should be subject to merit review?*).

The power of the Secretary to approve a sheep breed as a ***heat-tolerant sheep breed*** cannot be delegated. This is provided for by item [5] of this Schedule, which inserts new section 9-51.

#### **Item [2] – Section 6-13 (heading)**

Section 6-13 provides for a prohibition on the export of sheep to Qatar during specific times.

This item omits the words “22 May and 22” and substitutes “1 June and 21” in the heading in section 6-13. This amendment is consequential to the amendment made by item [3] of this Schedule, which amends section 6-13.

#### **Item [3] – Section 6-13**

Section 6-13 currently provides that a consignment of sheep must not be exported to Qatar by sea on a vessel that leaves an Australian port between 22 May in a year and 22 September in that year.

This item omits the words “22 May in a year and 22” and substitutes “1 June in a year and 21” in section 6-13. This will have the effect that a consignment of sheep must not be exported to Qatar by sea on a vessel that leaves an Australian port between 1 June in a year and 21 September in that year.

The amendment to the start date of the prohibition is required because the updated climate analysis from the Bureau of Meteorology indicates that the risk of sustained ambient WBTs above 29°C for the relevant period is less than previously understood when the original prohibition dates were prescribed. The updated climate analysis shows 1 June is a more appropriate prohibition start date than 22 May.

The amendment to the end date of the prohibition is required to reflect the climate analysis by the Bureau of Meteorology, which is based on intervals of 1 week, usually starting on Day 1,

8, 15 and 22 of any given month. For this reason, the reference to the end date has been amended to refer to 21 September.

#### **Item [4] – Section 6-14**

Section 6-14 currently provides that sheep must not be exported through certain waters in the Arabian Sea, or the Red Sea between 1 June and 14 September.

This item repeals section 6-14 and substitutes new sections 6-14, 6-14A and 6-14B.

The amendment will have the effect that a prohibition will no longer apply on the basis of whether the consignment of sheep travels, or will travel, through waters in the Arabian Sea, or the Red Sea, north of latitude 11°N at any time during the voyage. However, the export of a consignment of sheep through waters of the Arabian Sea, or the Red Sea, north of latitude 11°N at any time during the voyage will still be subject to other prohibitions that apply to voyages to certain countries, or through waters in the Red Sea, under Subdivision B of Division 4 of Part 2 of Chapter 6 of the Animals Rules.

New section 6-14 provides that a consignment of sheep must not be exported to Bahrain, Iran, Iraq, the Kingdom of Saudi Arabia, Kuwait or the United Arab Emirates by sea on a vessel that leaves an Australian port between 1 June in a year and 14 September in that year.

The updated climate analysis from the Bureau of Meteorology indicates that the risk of sustained ambient WBTs above 29°C in relevant parts of the Middle East is better understood than when the original prohibition dates were prescribed, such that it is appropriate to particularise voyage destinations in the Persian Gulf by reference to specific countries instead of by route.

New section 6-14A provides that a consignment of sheep must not be exported by sea on a vessel that leaves an Australian port from 15 June to 14 September, where the vessel will travel, or travels, through waters in the Red Sea at any time during its voyage. The effect of new section 6-14A is that, when compared to the existing prohibition in current section 6-14, there will be a two-week reduction in the prohibition period for the export of a consignment of sheep on a vessel that will travel, or travels through, waters in the Red Sea.

The amendment is required because the updated climate analysis from the Bureau of Meteorology indicate that the risk of sustained ambient WBTs above 29°C is less for voyages to or through the Red Sea in the first two weeks of June than previously understood when the original prohibition dates were prescribed. The updated climate analysis shows 15 June is a more appropriate prohibition start date than 1 June.

New section 6-14B provides for a conditional prohibition period for the export of sheep to certain countries in the Middle East. Geographically, Bahrain, Iran, Iraq, the Kingdom of Saudi Arabia, Qatar and the United Arab Emirates are all countries in the Persian Gulf. New section 6-14B provides, in effect, that a consignment of sheep must not be exported to these Persian Gulf countries by sea on a vessel that leaves an Australian port between 22 and 31 May, unless certain conditions outlined in this section are met. Where the additional conditions outlined in this section are met, then the export of sheep would be permitted during the conditional prohibition period.



New subsection 6-14B(1) provides that new section 6-14B applies in relation to a consignment of sheep that is to be exported to Bahrain, Iran, Iraq, the Kingdom of Saudi Arabia, Qatar or the United Arab Emirates by sea on a vessel that leaves an Australian port between 22 May in a year and 31 May in that year.

New subsection 6-14B(2) provides that the consignment of sheep must not be exported unless all of the following conditions are met:

- the weight of each sheep in the consignment is 66 kilograms or less (for a heat-tolerant sheep breed), or 56 kilograms or less (for any other sheep breed) – new paragraph 6-14B(2)(a);
- the length of the wool or hair of each sheep in the consignment is either 25 millimetres or less (for a heat-tolerant sheep breed), or 20 millimetres or less (for any other sheep breed) – new paragraph 6-14B(2)(b);
- the daily amount of feed that will be provided to each sheep in the consignment while on the vessel is at least 3% of the sheep's weight – new paragraph 6-14B(2)(c); and
- the pen air turnover for the vessel, when the vessel is in port, is at least:
  - 140 cubic metres per hour for each square metre of pen space on the vessel (provided the weight of each sheep in the consignment is 56 kilograms or less and the length of the wool or hair of each sheep in the consignment is 10 millimetres or less) – new subparagraph 6-14B(2)(d)(i);
  - 160 cubic metres per hour for each square metre of pen space on the vessel (provided that the minimum pen space allocation for each sheep in the consignment is at least 10% more than the minimum pen space allocation specified for sheep exported by sea in the ASEL) – new subparagraph 6-14B(2)(d)(ii); or
  - otherwise at least 180 cubic metres per hour for each square metre of pen space on the vessel – new subparagraph 6-14B(2)(d)(iii).

There is a new note following subsection 6-14B(2) which refers to other conditions, including the reporting obligations under subsections 6-17(2) and 6-18(5) of the Animals Rules, which apply in relation to the export of sheep by sea to the Middle East during the northern summer.

New subsection 6-14B(3) provides that if the vessel is also transporting a consignment of sheep to Kuwait, then the condition mentioned in paragraph 6-14B(2)(d) only applies in relation to the part of the journey that occurs after the vessel leaves the port in Kuwait.

The amendment is required because the updated climate analysis from the Bureau of Meteorology indicates that the risk of sustained ambient WBTs above 29°C is greater in the period of 22–31 May than previously understood when the original prohibition dates were prescribed. For vessels departing Australia between 22 and 31 May, the updated climate analysis shows 95th percentile maximum WBTs in the south-eastern part of the Persian Gulf are mostly at 29°C, although several locations in the Strait of Hormuz and southern Persian Gulf, including the port of Jebel Ali in the United Arab Emirates, are above 29°C and up to 30.5°C. However, the ambient WBTs in this period are not so much greater that the related heat stress risks to sheep cannot be appropriately mitigated through the introduction of additional conditions specifically designed to manage the WBT differential of up to 1.5°C. The additional conditions include measures to ensure sheep that are exported have more heat tolerance and measures to decrease the deck WBTs. Consignments of sheep must not be

exported to the specified destinations unless the additional conditions specified in subsection 6-14B(2) are met.

For the purposes of new paragraphs 6-14B(2)(a) and (b), it is necessary to distinguish between heat-tolerant sheep breeds and other sheep breeds. This is because heat-tolerant sheep breeds are generally well-adapted to hot climates due to factors including type of coat (wool or hair), skin colour, body size, fat distribution and physiological responses. The definition for the term ***heat-tolerant sheep breed*** is set out in section 1-6 of the Animals Rules, as amended by item [1] of this Schedule. Examples of heat-tolerant sheep breeds are the Awassi, Damara and Dorper breeds.

The policy intention for specifying the weight of each sheep in the consignment for the purposes of new paragraph 6-14B(2)(a) is because scientific studies have identified that sheep heat stress thresholds generally decrease as bodyweights increase (see Marai et al, “Physiological traits as affected by heat stress in sheep—A review”, *Small Ruminant Research*, 2007 and McManus et al, “Heat stress effects on sheep: Are hair sheep more heat resistant?”, *Theriogenology*, 2020). These studies have identified the following principles applying to heat susceptibility and sheep weight:

- The heavier the sheep, the smaller the surface area to weight ratio, which results in a less effective cooling effect of radiant heat and convection from air flow. This means there is less heat loss as animals become heavier;
- Heavier sheep are also generally fatter, and the fat over the body insulates tissues from losing heat; and
- Sheep heat stress thresholds generally decrease as body weights increase, particularly in sheep breeds that are not heat tolerant.

Limiting the maximum bodyweight of exported sheep aims to prevent the export of heavier, less heat-tolerant sheep. For example, a Merino sheep (which is not a heat-tolerant sheep breed) weighing 45 kilograms has a heat stress threshold 1°C higher than a Merino sheep weighing 70 kilograms. Heat-tolerant sheep breeds also have a higher heat stress threshold than an equivalently weighted sheep that is not of a heat-tolerant sheep breed. For example, an Awassi sheep (which is a heat-tolerant sheep breed) weighing 53 kilograms has a heat stress threshold that is approximately 1-2°C higher than a Merino sheep weighing 53 kilograms.

The policy intention for specifying the wool or hair length of each sheep in the consignment for the purposes of new paragraph 6-14B(2)(b) is because scientific studies have identified that sheep heat stress thresholds generally decrease as wool or hair length increases. Wool length can adversely affect an animal’s ability to shed heat through evaporative heat loss (Hofmeyr et al., “Effects of temperature and wool length on surface and respiratory evaporative losses of sheep”, *Journal of Applied Physiology*, 1969). Merino sheep with shorter wool lengths are more heat tolerant than those with longer wool lengths. The upper critical temperature threshold for ‘woolled sheep’ is reported to be between 25°C to 30°C and is also affected by humidity (Tadesse et al., “Effects of high heat load conditions on body weight, feed intake, temperature, and respiration of Dorper, Katahdin, and St. Croix sheep”, *Journal of Applied Animal Research*, 2019, Furquay, “Heat stress as it affects animal production”, *Journal of Animal Science*, 1981).

A shorn Merino sheep is less heat tolerant than an equivalent sheep from a heat-tolerant sheep breed in full hair (McManus et al. 2020, Belhadj Slimen et al., “Meta-analysis of some physiologic, metabolic and oxidative responses of sheep exposed to environmental heat stress”, *Livestock Science*, 2019). For example, an adult Merino sheep, weighing 40 kilograms and with wool that has been shorn to less than 10 millimetres in length, has a heat stress threshold 1.3°C lower than an equivalent hairy Awassi sheep (Maunsell Australia Pty Ltd, “Development of a heat stress risk management model”, final report, Meat & Livestock Australia Limited, 2003).

The requirement in new subparagraph 6-14B(2)(b)(i) for the length of wool or hair of each sheep in a consignment to be 25 millimetres or less for a heat tolerant sheep breed (for example, Awassi) replicates the current requirement in ASEL clause 3.7.3 that sheep sourced for export must have wool or hair no longer than 25 millimetres in length at the time of loading for transport to the port of embarkation.

The requirement in new subparagraph 6-14B(2)(b)(ii) for sheep other than heat-tolerant sheep breeds (including Merino sheep) to have wool or hair less than 20 millimetres at the time of loading for transport to the port of embarkation recognises the science that indicates sheep have a higher heat stress threshold when they have shorter wool or hair. A sheep with 10 millimetres or less of wool will have a heat stress threshold of around 1°C higher than a sheep with 10-25 millimetres of wool (Maunsell 2003). Advice received from sheep producers and exporters during additional stakeholder engagement in March 2022 is that shearing a sheep that already has a short fleece is impractical and can cause damage (for example, pulling the skin of the sheep rather than cutting the fleece) or other welfare issues. Therefore, setting the requirement for less heat-tolerant sheep breeds at a maximum of 20 millimetres recognises the practicalities of preparing sheep for export and, when taken in conjunction with additional conditions related to the weight limit for sheep and minimum pen air turnover for the vessel, provides appropriate additional heat stress mitigation for the sheep being exported during the conditional prohibition period.

The policy intention for specifying the daily amount of feed that will be provided to each sheep in the consignment for the purposes of new paragraph 6-14B(2)(c) is to assist in shy feeder management and related issues such as inanition on board the vessel.

Shy feeding occurs where animals are reluctant to eat pelleted rations, and it has been linked to loss of condition, inanition, salmonellosis and other problems which may be further exacerbated by heat (Barnes et al., “Physiology of heat stress in cattle and sheep”, LIVE.209, Meat & Livestock Australia and Australian Livestock Export Corporation Ltd, 2008; Phillips, “The welfare risks and impacts of heat stress on sheep shipped from Australia to the Middle East, *The Veterinary Journal*, 2016). Inanition is the state of exhaustion resulting from lack of food and water. Providing additional feed can be an effective preventative measure for shy feeding and inanition (Jubb & Perkins, “The Veterinary Handbook for the Livestock Export Industry”, Australian Livestock Export Corporation and Meat & Livestock Australia Limited, 2021). Additional feeding is likely to assist in shy feeder management on board, as food would still be available after more aggressive feeders have finished eating.

Multiple literature sources report a decrease in dry matter intake in response to increased temperature, however, this can vary with breed, with some sheep reported to increase their dietary intake (Slimen et al. 2019, Tadesse et al. 2019, Marai et al. 2007, Barnes et al. 2004).

Voyage reporting during the 2019-21 Northern Hemisphere summer periods indicated that feeding either *ad libitum* or well above the requirements under the ASEL (up to 3.7 per cent of liveweight) occurred on:

- 100 per cent of voyages to the Persian Gulf (all 10 voyages);
- 40 per cent of voyages to the Red Sea (2 of 5 voyages);
- 80 per cent of all voyages reported feeding well above minimum ASEL requirements (12 of 15 voyages).

*Ad libitum* feeding means that food and water is available at all times with the quantity and frequency of consumption being the free choice of the animal.

Voyage reports also suggested that a number of mortalities during periods of elevated ambient WBTs were likely associated with inanition, possibly a result of rationing of feed early in the journey.

The policy intention for specifying the minimum pen air turnover for the vessel in new paragraph 6-14B(2)(d) is because a higher pen air turnover on the vessel can allow sheep to tolerate higher ambient temperatures. Section 1-6 of the Animals Rules defines ***pen air turnover*** for a vessel as the ventilation rate measured in cubic metres per hour for each square metre of pen space on the vessel, calculated using an industry standard, or equivalent, method.

Scientific studies have reported that the higher the pen air turnover for a vessel, the lower the rise in the WBTs. Doubling the pen air turnover for a vessel halves the rise in the WBTs (see McCarthy, “Independent review of conditions for the export of sheep to the Middle East during the Northern Hemisphere summer”, Department of Agriculture and Water Resources, 2018)). Paragraph 6-14B(2)(d) contains three different options related to the pen air turnover for the vessel on which a consignment of sheep is to be exported. Each option provides for a combination of discrete factors which, when taken cumulatively with the other conditions in paragraphs 6-14B(2)(a) to (c), mitigate the heat stress risk to sheep exported to the Persian Gulf countries (other than Oman and Kuwait) during the conditional prohibition period.

Where the minimum pen space allocation is 10% higher than the minimum pen space allocation specified for sheep exported by sea in the ASEL, then a lower pen air turnover of 160 cubic metres per hour for each square metre of pen space on the vessel would be required.

When sourcing and preparing less heat-tolerant sheep for export, providing the weight of each sheep in the consignment is 56 kilograms or less and the length of the wool or hair of those sheep in the consignment is 10 millimetres or less, a lower pen air turnover of at least 140 cubic metres per hour for each square metre of pen space on the vessel would be required to achieve similar animal welfare outcomes.

Some voyages to the Middle East have several consignments of sheep on board. They are not usually destined for the same port. The new conditional period that applies to the export of sheep to specified destinations during the period of 22-31 May does not apply to exports to Kuwait. The additional conditions that apply to the export of sheep to other Persian Gulf destinations between 22 and 31 May do not apply to exports to Kuwait.

Existing section 6-19 of the Animals Rules provides that if a consignment of sheep is being exported to Kuwait, then Kuwait must be the first port of unloading for the vessel transporting the sheep. Where a consignment of sheep travels directly to one or more Persian Gulf destinations without unloading sheep at Kuwait, all of the new additional conditions in new subsection 6-14B(2) must be met (i.e., weight, wool/hair length, additional feed and minimum pen air turnover). However, for multi-port voyages where some sheep are first unloaded at Kuwait before the vessel travels onwards to unload other sheep at other destinations in the Persian Gulf, the new minimum pen air turnover condition in new paragraph 6-14B(2)(d) will only apply for the onwards part of the journey after the vessel leaves the port in Kuwait and not for the journey between the Australian port and Kuwait (as set out in new subsection 6-14B(3)). The other additional conditions (weight, wool/hair length and additional feed) will apply to the entire voyage from the Australian port to the Persian Gulf destination via Kuwait. This is because, after the vessel leaves the cooler microclimate of Kuwait, all four additional conditions in new subsection 6-14B(2) are required to mitigate heat stress risks to sheep once the vessel arrives in the Persian Gulf (other than Kuwait) in the early part of June. Particularly, the vessel needs:

- a minimum pen air turnover of at least 180 cubic metres per hour for each square metre of pen space;
- a minimum pen air turnover of at least 160 cubic metres per hour for each square metre of pen space, if the exporter spreads out the remaining sheep on the vessel to give the sheep the 10 per cent more space than required under the ASEL; or
- a minimum pen air turnover of at least 140 cubic metres per hour for each square metre of pen space on the vessel (provided the weight of each sheep in the consignment is 56 kilograms or less and the length of the wool or hair of those sheep in the consignment is 10 millimetres or less).

New section 6-14B would apply in addition to the general conditions set out in Subdivision C of Division 4 of Part 2 of Chapter 6 of the Animals Rules. Subdivision C applies to the exports of sheep by sea from 1 May to 31 October, where the vessel transporting the sheep will travel, or travels, through waters in the Arabian Sea, or the Red Sea, north of latitude 11°N at any time during the voyage. Subdivision C does not otherwise permit the export of a consignment of sheep if export of the consignment is prohibited by Subdivision B.

For example, while new paragraph 6-14B(2)(d) provides additional conditions relating to pen air turnover during the conditional prohibition period, section 6-17 contains general requirements for the pen air turnover for a vessel. This includes that the pen air turnover must be verified by an independent qualified mechanical engineer every 5 years, or whenever any changes are made to the vessel that may have affected the pen air turnover. In addition, the holder of the sheep export licence must provide the department with written notice of the most recent verified pen air turnover for the vessel and a description of the method used to evaluate the pen air turnover.

#### **Item [5] – At the end of Chapter 9**

This item inserts a new Part 5 at the end of Chapter 9 of the Animals Rules. New Part 5 provides for powers of the Secretary.

Subsection 288(1) of the Act provides that the Secretary may, in writing, delegate any of the Secretary's functions or powers under the Act to an SES employee, or an acting SES employee, in the department. Paragraph 288(4)(a) provides that the rules may provide that specified functions or powers of the Secretary under the rules must not be delegated.

New section 9-51 provides that, for the purposes of paragraph 288(4)(a) of the Act, the power of the Secretary under paragraph (d) of the definition of *heat-tolerant sheep breed* in new section 1-6 must not be delegated under subsection 288(1) of the Act. Paragraph (d) of the definition of *heat-tolerant sheep breed* allows the Secretary to approve a sheep breed as a *heat-tolerant sheep breed* (other than a Merino or a breed of sheep that is descended from a Merino).

It is appropriate for this power to be exercised by the Secretary personally, as such decisions will involve detailed consideration of scientific evidence and may have broad implications for the export of sheep to the Middle East.

#### **Item [6] – Chapter 12 (heading)**

This item omits “Transitional” and substitutes “Application, saving and transitional”. This has the effect that the new heading of Chapter 12 of the Animals Rules would refer to application, saving and transitional provisions.

This amendment is consequential to the amendment made by item [8] of this Schedule, which inserts new Part 6 of Chapter 12.

#### **Item [7] – Section 12-1**

Section 12-1 currently sets out the definitions for Chapter 12.

This item omits “In this Chapter” and substitutes “In Parts 2 to 5 of this Chapter”. This has the effect that the definitions in new section 12-1 would apply to only Parts 2 to 5 of Chapter 12 of the Animals Rules, and not to new Part 6 inserted by item [8] of this Schedule. Parts 2 to 5 of Chapter 12 set out various transitional provisions that apply after the commencement of section 3 of the Act.

This amendment is consequential to the amendment made by item [8] of this Schedule, which inserts new Part 6 of Chapter 12. The definitions set out in section 12-1 are not relevant to new Part 6.

#### **Item [8] – At the end of Chapter 12**

This item inserts a new Part 6 at the end of Chapter 12 of the Animals Rules. New Part 6 relates to amendments made by the Amendment Rules.

New section 12-32 provides that the amendments of the Animals Rules made by the Amendment Rules apply in relation to a consignment of sheep exported by sea on a vessel that leaves an Australian port on or after the commencement of the Amendment Rules (whether the sheep export licence was granted before, on or after that commencement).

**Statement of Compatibility with Human Rights**

*Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011*

***Export Control (Animals) Amendment (Northern Hemisphere Summer Prohibition) Rules  
2022***

This Legislative Instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

**Overview of the Legislative Instrument**

The *Export Control (Animals) Amendment (Northern Hemisphere Summer Prohibition) Rules 2022* (the Amendment Rules) is made under the *Export Control Act 2020* (the Act). The Amendment Rules amends the *Export Control (Animals) Rules 2021* to revise the absolute prohibition dates for the export of sheep to, or through, the Middle East during the Northern Hemisphere summer. The Amendment Rules also provide for a conditional prohibition period for the export of sheep to certain countries in the Middle East. Where additional conditions are met during the conditional prohibition period, then the export of sheep would be permitted.

The amendments are primarily based on an updated climate analysis prepared by the Bureau of Meteorology, which was considered as part of the department's review of the regulatory settings for the export of live sheep to, or through, the Middle East during the Northern Hemisphere summer.

**Assessment of Compatibility with Human Rights**

The Amendment Rules do not engage any of the applicable rights or freedoms.

**Conclusion**

The Amendment Rules are compatible with human rights as they do not raise any human rights issues.

**Andrew Edgar Francis Metcalfe AO**  
**Secretary of the Department of Agriculture, Water and the Environment**