

# LIGHTNING STRIKES ADVISORY DOCUMENT (Dorrigo Agricultural Show)

## Purpose

This recommended policy sets out the Dorrigo and Guy Fawkes Agricultural Association's approach to managing the risk to patrons and volunteers of lightning strikes and associated natural hazards. Although this is the recommended course of action in the event of a lightning storm, it DOES NOT guarantee that patrons and volunteers will not be injured by a lightning strike

*There is only a small possibility that lightning strikes may cause injury/death at the Dorrigo Agricultural Show. However, there is a remote possibility that there could be mass casualties if a crowded arena were directly struck. Therefore it is a possibility the Association should anticipate.*

This recommended policy:

- (1) Draws on the available literature to suggest steps which individuals can take to reduce their risk of being struck by lightning. *While the Association owes a duty of care to those attending the Show and participating in its activities, individuals also have a responsibility to act responsibly to minimise the risks to which they are exposed.*
- (2) Sets out the circumstances in which the Association will act to reduce risks associated with lightning strike (e.g. by suspending or cancelling events), and
- (3) Sets out responsibilities and procedures for putting this policy into effect.

## How to reduce personal risk during an electrical storm

When should you act?

### The 30-30 Rule

A widely accepted rule indicates that you should seek a safe location whenever the flash-to-thunder time (Flash to Bang) interval is less than 30 seconds or 10 km distance to the lightning activity. The "30-30 Rule" states that when you see lightning, count the time until you hear the associated thunder, and if this time delay is 30 seconds or less, go immediately to a safe location as described below.

If you cannot see the lightning, just hearing the thunder means you are most likely to already be within striking range, and it is time to seek whatever appropriate shelter is available.

The "30-30 Rule" is best suited for existing thunderstorms moving into the area. However, it cannot predict nor protect against a first lightning strike. Thunderstorms can develop overhead without preceding thunder in the distance. Be alert to changes in sky conditions portending thunderstorm development directly overhead.

After the storm conditions have apparently dissipated or moved on, wait a further 30 minutes, after hearing the last thunder before leaving the safe area location. Should thunder be heard within this period, restart the 30-minute count.

## Where should you go?

When lightning threatens, individuals should promptly secure livestock and seek safe shelter. **Safe shelters** include:

- Fully enclosed metal caravans and hard-topped vehicles with windows up
- Substantial brick/concrete buildings, well earthed by plumbing and electrical connections.

*The Association has sought the Trustees' advice whether any other buildings on the Showground have been adequately protected against lightning strike in accordance with the relevant Australian Standard. Pending that advice, only the toilet blocks can currently be considered to offer some safety. However, other buildings at the*

## Recommended policy to manage risks of lightning strikes at Dorrigo Agricultural Show

*Showground may offer protection against hazards from hail and strong winds, which often accompany thunderstorms*

**Unsafe shelter areas and activities** include:

- tents, insubstantial, open-sided and unearthed structures
- all outdoor metal objects, like power poles, fences and gates, high mast light poles, fairground and electrical equipment.
- solitary trees.
- open water.
- open fields and other outdoor spaces.
- high ground
- riding in open topped vehicles, or on horses

If you feel your hair standing on end, and/or hear "crackling noises," you are in lightning's electric field. If caught outside during close lightning activity, immediately remove metal objects (including baseball cap, jewellery, belts, car keys etc.), place your feet together, duck your head, and crouch down low with hands on knees. Avoid close proximity to other individuals, livestock etc.

### [The Association's actions to reduce lightning risk](#)

The Association will act in the following ways to manage the health and safety risks of lightning strikes.

- 1) Educate the public on what it can do to reduce risks by displaying the previous section of this recommended policy at the Show Office, at other strategic locations on the Showground, and at the start of the Fun Run. Include this policy on its website, and draw attention to it in the Show Schedule. Include the policy in the kits given to Chief Stewards etc.
- 2) Monitor the Bureau of Meteorology's forecasts and warnings in the days leading up to the Show. If thunderstorms are officially forecast, or if it is otherwise judged that lightning is possible, take the following actions:
  - a) Advise stewards, gatekeepers and other significant volunteers that thunderstorms are forecast; that individuals should take appropriate care; that the Association will be monitoring developments and may require events to be postponed/ abandoned if it assesses that the risk is becoming severe.
  - b) Regularly monitor the weather radar; listen for thunder; and watch for signs of developing storms. If thunder is heard and the weather radar indicates that a thunderstorm may be approaching, implement the "30-30 Rule": that is:
  - c) Require all outside events to cease when lightning precedes thunder by less than 30 seconds. Livestock are to be secured and all participants, volunteers etc. advised immediately to seek safe shelter. Outdoor activities will not be resumed until the weather radar indicates that the thunderstorm is moving away and it is 30 minutes since the last lightning strike within 10 kilometres.
  - d) The Association may also implement this procedure if it judges that a thunderstorm is developing overhead, even if there has been no thunder.
  - e) Decisions to implement the "30-30 Rule" will be announced over loud speakers, and communicated to Chief Stewards and concessionaires by phone and personal communication. The Association will make it a condition of contracts for Exhibitors etc. that they agree to abide by the decisions of the Association on management of lightning risks.

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- 3) Following each implementation of the “30-30 Rule”, the Association will seek input from those involved and otherwise affected, and prepare a report for the committee, evaluating how its response might be improved in future.

### **Responsibilities and procedures**

Decisions to implement the “30-30 Rule” should be taken by a committee of at least three senior officials. Ideally it should comprise the President (Chair); the Chief Ring Steward and/or a senior livestock steward, and the Health/ Safety Steward. If any of these officials are unavailable other responsible officials may be substituted, with the most senior taking the chair. The Secretary should be present if possible to help implement any resultant decisions.

The Health/ Safety Steward will be responsible for (A) monitoring forecasts, warnings and the weather radar; (B) advising the Secretary when he sees there is a need to alert stewards etc. that there is a risk of thunderstorms; and (C) convening ad hoc meetings (with the assistance of the Secretary) where he sees a need to implement the “30-30 Rule”.

The Executive will appoint a substitute for the Health/ Safety Steward, if he advises that he will be unavailable for part of the Show.

The Executive (in conjunction with the Health/Safety Steward) will prepare words suitable for use by announcers, and a list of those to be contacted if it becomes necessary to implement the “30-30 Rule”.

The Executive will also need to determine a procedure for rescheduling subsequent events following any implementation of the “30-30 Rule”.