BVA position on the use and sale of fireworks

Executive summary

BVA supports further restrictions on the use and sale of fireworks to safeguard animal health and welfare.

Under the UK Animal Welfare Acts1,2,3, humans responsible for animals must ensure that the animals under their care are protected from pain, suffering, injury and disease. This includes protecting animals from pain, suffering or injury that may be caused by the use of fireworks.

Loud and high-pitched fireworks can have a negative impact on animal health and welfare by causing stress or fear responses across a range of species, including companion animals, wildlife, horses, livestock and zoo animals,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18. We therefore consider that current controls on the use and sale of fireworks, as well as controls to mitigate noise levels, do not go far enough to adequately safeguard the health and welfare of animals in the UK.

With this in mind, our specific recommendations to improve protections for animal health and welfare

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8 The British Horse Society. Advice on Horse and Fireworks. Available at: https://www.bhs.org.uk/~/media/bhs/files/pdf-documents/safety-leaflets/horses-and-fireworks.ashx
Recommendation 1: The government should reduce the maximum permitted noise of fireworks intended for public sale to 97 decibels with a 15-metre safety distance.

Recommendation 2: Private firework displays should be limited to using fireworks with a maximum permitted noise level of 97 decibels with a 15-metre safety distance, in line with our recommendation to limit the noise levels of fireworks intended for public sale.

Recommendation 3: Fireworks should be clearly labelled to indicate their noise level to the consumer eg. ‘low noise firework’ or ‘loud noise firework – risk to animal welfare’. This would enable consumers to exercise an informed choice as to the types of firework they are buying if they wish to minimise the potential negative noise impact of fireworks on animal health and welfare.

Recommendation 4: The government should restrict the private use of fireworks to agreed traditional dates and the weekend closest to which these dates fall eg. Bonfire Night (5 November), New Year, Chinese New Year, Diwali. This would bring controls on use in line with controls on sale, which requires retailers to have a licence to sell fireworks outside of these traditional dates.

Recommendation 5: The current permitted period for sales of fireworks without a licence around 5 November (Bonfire Night) should be restricted, similar to those for other traditional dates set out in fireworks legislation.

Recommendation 6: All public displays and organised events using fireworks should be required to be licensed by the relevant authority.

Recommendation 7: Conditions of a public display or organised event license should stipulate that license holders are required to give advance notice of the display to all local residents with the option for local residents to appeal against the display or event.

Recommendation 8: Conditions of a public display or event license should stipulate that the license holder must pay due regard to how their firework display may impact on companion animals, wildlife, horses and livestock in the local area, as well as how they are going to dispose of debris and remnants of fireworks.

Recommendation 9: The government should improve public awareness of the potential negative impact of fireworks on animal health and welfare and how to mitigate these by disseminating messaging through its communications channels, particularly around the traditional dates when fireworks are used eg. Bonfire Night (5 November), New Year, Chinese New Year, Diwali.

Recommendation 10: Government guidance on the responsible use of fireworks should highlight the potential negative impact of fireworks on animal health and welfare, as well as the importance of safe disposal of the debris and remnants of fireworks, as a key area for event organisers to consider in their planning of displays eg. in the Department for Communities and Local Government document Celebrating with bonfires and fireworks: a community guide to organising bonfires and fireworks.

Recommendation 11: Owners and animal keepers who are concerned about potential fear or stress responses in their animals to consult with their veterinary surgeon, if possible well in advance of firework displays.

Recommendation 12: Veterinary surgeons should advise evidence-based management and therapies for fear responses to fireworks to improve the welfare of the animals under their care.

Recommendation 13: Veterinary associations and animal welfare organisations should continue to issue timely advice to animal owners on how to prepare their pets for firework displays and prevent or manage possible distress.
BVA position on the use and sale of fireworks

Introduction

BVA supports further restrictions on the use and sale fireworks to safeguard animal health and welfare.

Under the UK Animal Welfare Acts 19, 20, 21 humans responsible for animals must ensure that the animals under their care are protected from pain, suffering, injury and disease. This includes protecting animals from pain, suffering or injury that may be caused by the use of fireworks.

Loud and high-pitched fireworks can have a negative impact on animal health and welfare by causing stress or fear responses across a range of species, including companion animals, wildlife, horses, livestock and zoo animals. 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34 We therefore consider that current controls on the use and sale of fireworks, as well as controls to mitigate noise levels, do not go far enough to adequately safeguard the health and welfare of animals in the UK.

As a One Health focussed profession, we also recognise that fireworks can also have a negative health and wellbeing impact on humans, potentially resulting in noise nuisances in residential areas, preventable injuries 35, and triggering distress amongst groups that may be particularly sensitive to fireworks.

21 Welfare of Animals Act (Northern Ireland) 2011
unpredictable, loud and high-pitched noises eg. those that suffer from autism or post-traumatic stress disorder (PTSD).36, 37

Our specific recommendations to improve protections for animal health and welfare focus on the following four key areas:

- Further restrictions on private use and sale
- Licensed public displays or organised events
- Improved public awareness of the impact of fireworks on animal health and welfare
- The role of the veterinary profession

**Negative animal health and welfare impacts across species**

As animals have more acute hearing than humans38,39, the loud and high-pitched noises made by fireworks can cause animals to suffer distress, fear or develop phobia responses.40

British Small Animal Veterinary Association (BSAVA) highlights that these fear responses may be transient and decrease as the animal gets used to the noise. However, a significant proportion of individuals will become sensitised, in other words the response will increase with repeated exposure. The particular response of an individual animal to noises will vary between individuals.41 In addition, loud and high-pitched may not only provoke psychological distress, but also cause injuries when animals attempt to run or hide from the noise.

It is estimated that 45% of dogs show signs of fear when they hear fireworks.42 In addition, the PDSA 2018 PAW report highlights that 51% of veterinary professionals said that they have seen an increase in pets with phobias such as fireworks in the last two years and 40% of dog owners (3.6 million dogs) report that their dog is afraid of fireworks.

**Examples of species-specific fear or stress reactions to fireworks across species include:**

**Dogs**

- Behaviours such as avoidance (eg. hiding away, not eating and agitation) and overt behaviours (eg. barking, spinning, tail-chewing) that occur as dogs try to cope with the perceived threat
- Dogs exhibiting a strong ‘flight response’, may injure themselves or others.
- Damage to furnishings and carpets as dogs may try to chew or dig their way out of rooms when shut in to get away from the noise.
- These behaviours can be extremely challenging for owners to address because fireworks remain out of their control and therefore they are unable to remove the triggers for their dog’s fearful behaviour.

**Cats**

- Cats will can associate sudden loud noises and flashes of light with danger and an imminent threat to their physical safety, so their natural response is to vacate the area quickly. However, as cats

36 National Centre For Mental Health (NCMH), 2018. Bonfire Night and PTSD. Available at: https://www.ncmh.info/2018/11/02/bonfire-night-ptsd/
38 UK Hearing Care with Age UK. How does an animal’s hearing compare to a human’s – Infographic: https://visual.ly/community/infographic/animals/how-does-animal%E2%80%99s-hearing-compare-human%E2%80%99s-infographic
39 Strain, G.M. “How Well Do Dogs and Other Animals Hear?” Louisiana State University School of Veterinary Medicine. Available at: https://www.lsu.edu/deafness/HearingRange.html
40 BSAVA Position statement on Fireworks. Available at: https://www.bsava.com/Resources/Veterinary-resources/Position-statements/Fireworks
41 Ibid.

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struggle to locate the source of noise, this often means that they will bolt in an unfavourable direction which may not provide protection

- Cats which have access to outdoor areas are in danger of running into traffic, or becoming lost in an unknown territory. As many cats are not microchipped, this can make it very difficult for them to be returned to their original owners or to obtain owner consent for treatment if the cat has been injured.

- It is recognised that when cats experience chronic stress this often has negative effects over time on their behaviour and physical health such as cystitis, or behavioural problems such as house soiling, redirected aggression to owners and destructive behaviour around the household.

**Horses**

- As prey animals, horses often respond to threat with flight behaviours and are known to be reactive to loud noises and flashing lights. Horses experience physiological and behavioural changes in response to perceived danger. Sweating, trembling, bucking/rearing, weaving and decreased appetite are commonly described fearful and stress behaviours.

- In response to the perceived danger of fireworks, horses can exhibit ‘flight’ responses which result in horses running away and/or trying to escape their enclosures. The implications of this includes compromised health and welfare for the horse, people and damage to surrounding property and vehicles. Examples include; horses escaping onto roads in front of traffic; breaking through their enclosure both stabled or outside, resulting in injuries including lacerations, strains/sprains, broken limbs.

**Livestock**

- Livestock who are startled by the loud noises from fireworks are at risk of injuring themselves on fencing, farm equipment or fixtures and fittings within their housing if startled.

- Debris and remnants of fireworks can also pose a risk to the health and welfare of livestock if found on the land. Users of fireworks have a duty of care to dispose of debris and remnants of fireworks responsibly.

- Poultry are especially at risk of ‘smother’, where in a fear response birds huddle together, which can result in death for some

- The use of fireworks can cause deliberate or accidental farm fires that can result in serious injury or death for both livestock and humans. In addition, if the use of fireworks results in a fire, livestock housed on the land run the risk of lead poisoning from burn sites.

**Wildlife**

- Loud noises may cause distress or injury to the wildlife depending on proximity to the display and the reach of the noise.

- The smell of fire and burning will cause distress to many wildlife species.

- Debris and remnants of fireworks can also pose a risk to the health and welfare of wildlife.

- Where bonfires accompany firework displays there is a risk to wild animals who may seek shelter in the bonfire before it is lit.

**Legal requirements**

We recognise that current legislation provides controls on the use and sale of fireworks, as well as provisions to minimise noise levels and protect animal welfare.  

**Animal welfare**

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43 The Fireworks Regulations 2004 (made under the powers of the Fireworks Act 2003),
44 Explosives Act 2014
45 Pyrotechnic Articles (Safety) Regulations 2015
46 Environmental Protection Act 1990

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As set out above, under the UK Animal Welfare Acts\textsuperscript{47,48,49} humans responsible for animals must ensure that the animals under their care are protected from pain, suffering, injury and disease. This includes protecting animals from pain, suffering or injury that may be caused by the inappropriate use of fireworks.

In addition, under the \textit{Wildlife and Countryside Act 1981} it is an offence to disturb Schedule 1 birds when they are nesting.

\textbf{Noise control}

Under Schedule 1 of \textit{the Pyrotechnic Articles (Safety) Regulations 2015}, fireworks are currently categorised and labelled according to their explosive content:

- **Category F1** – fireworks which present a very low hazard and negligible noise level, and which are intended for use in confined areas, including fireworks which are intended for use inside domestic buildings (ie. indoor fireworks).
- **Category F2** – fireworks which present a low hazard and low noise level, and which are intended for outdoor use in confined areas (ie. garden fireworks).
- **Category F3** – fireworks which present a medium hazard, which are intended for outdoor use in large open areas and whose noise level is not harmful to human health (ie. display fireworks for open areas such as fields).
- **Category F4** – fireworks which present a high hazard, which are intended for use only by persons with specialist knowledge and whose noise level is not harmful to human health (ie. professional fireworks for large open spaces).

In terms of noise control, the legislation provides for the following measures:

- **Category F1, F2, and F3 fireworks** must not exceed the maximum noise level of 120 decibels, which is in line with the \textit{European Directive 2013/29/EU (the Pyrotechnic Directive)} on the harmonisation of the laws of the Member States relating to the making available on the market of pyrotechnic articles.
- **Powers for local authorities under the Environmental Protection Act 1990 and Anti-Social Behaviour Act 2003 regarding excessive noise** - fireworks may be deemed a statutory nuisance by an Environmental Health Officer.

Despite these provisions, we are concerned that Environmental Health Officers will not be able to adequately enforce powers under the Environmental Protection Act 1990 and Anti-Social Behaviour Act 2003 given the transient nature of fireworks which makes it difficult to ascertain the source of the noise nuisance.

In addition, the 120 decibels noise limit on Category F1, F2, and F3 fireworks is specified to align with the human pain threshold for audible sound. We therefore consider that the legislation does not pay sufficient regard for the impact of noise level and frequency of fireworks on animals, as sentient beings, who are more sensitive to loud and high frequency noise than their human counterparts.

In the absence of accurate evidence regarding the specific welfare impact of loud noise levels on animals, we support a reduction in the maximum permitted noise of fireworks intended for public sale to a threshold of 97 decibels with a 15-metre safety distance.

The below extract taken from the RSPCA report \textit{Keep the Noise Down: Loud fireworks frighten animals} (2005) sets out the rationale for reducing the maximum permitted noise of fireworks intended for public sale to the 97-decibel limit:

- Most animals, especially pets, are used to and can tolerate common household noises. 97 decibels corresponds to the maximum measured household noise level.
- The 97 decibels limit will mean that many existing fireworks, including most candles, rockets and fountains, will still be on sale.

\begin{itemize}
  \item \textbf{Animal Health and Welfare Act (Scotland) 2006} \url{https://www.legislation.gov.uk/asp/2006/11/contents} \\
  \item \textbf{Welfare of Animals Act (Northern-Ireland) 2011} \url{https://www.legislation.gov.uk/nia/2011/16/pdfs/nia_20110016_en.pdf}
\end{itemize}
• Setting the limit at 97 decibels will encourage manufacturers to design and produce quieter fireworks.

It is important to note that the proposed noise limit of 97 decibels is not based on research regarding the animals’ behaviour to maximum noise levels – the RSPCA will never subject animals to noise level tests.

Recommendation 1: The government should reduce the maximum permitted noise of fireworks intended for public sale to 97 decibels with a 15-metre safety distance.

Recommendation 2: Private firework displays should be limited to using fireworks with a maximum permitted noise level of 97 decibels with a 15-metre safety distance, in line with our recommendation to limit the noise levels of fireworks intended for public sale.

Recommendation 3: Fireworks should be clearly labelled to indicate their noise level to the consumer eg. ‘low noise firework’ or ‘loud firework – risk to animal welfare’. This would enable consumers to exercise an informed choice as to the types of firework they are buying if they wish to minimise the potential negative noise impact of fireworks on animal health and welfare.

Use and sale

Figure 1 sets out requirements under current legislation for the use and sale of fireworks.

<table>
<thead>
<tr>
<th>Use</th>
<th>Sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fireworks can be set off by any adult between 7.00am and 11.00pm every day of the year, except for: Bonfire Night, when the cut off is extended until midnight. New Year's Eve, Diwali and Chinese New Year, when the cut off is extended until 1am.</td>
<td>Fireworks can only be sold to persons aged 18 years or older.</td>
</tr>
<tr>
<td>It is not a legal requirement to have any form of licence or training to let off consumer fireworks. There is, however, a legal requirement for people who are organising public fireworks displays to receive training.</td>
<td>Fireworks can be sold at any time of the year and can be bought online.</td>
</tr>
<tr>
<td>It is illegal to set off fireworks in the street or other public places.</td>
<td>A retailer does not need a licence to sell fireworks at the following times:</td>
</tr>
</tbody>
</table>

Further restrictions on private use and sale

Given the potential negative impact on animal health and welfare and the current ease with which people can access and use fireworks, BVA supports further restrictions on their use and sale to the public.

Recommendation 4: The government should restrict the private use of fireworks to agreed traditional dates and the weekend closest to which these dates fall eg. Bonfire Night (5 November), New Year, Chinese New Year, Diwali. This would bring controls on use in line with controls on sale, which requires retailers to have a licence to sell fireworks outside of these traditional dates.

We also note that the window for sales of fireworks without a licence appears disproportionately long. 

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around Bonfire Night (5 November), with sales permitted from a retailer without a licence from 5 October to 10th November. We consider that such a wide window increases potential for the misuse of fireworks and a negative impact on the health and welfare of animals. We would therefore support tighter restrictions on the sale of fireworks around this time, similar to those for other traditional dates set out in fireworks legislation.

**Recommendation 5**: The current permitted period for sales of fireworks without a license around 5 November (Bonfire Night) should be restricted, similar to those for other traditional dates set out in fireworks legislation.

**Licensed public displays or organised events**

Public firework displays present animal owners and authorities enforcing fireworks legislation with more opportunity to mitigate the negative welfare impacts of fireworks for the following reasons:

- Public firework displays can be advertised well in advance, giving animal owners and keepers sufficient time to prepare their pets for firework displays and prevent or manage possible distress.
- Public firework displays are at fixed times of year, meaning, again, that animal owners are able to anticipate their occurrence and take appropriate measures to prevent or manage possible distress in their animals.
- As public firework displays are at specified locations and therefore easier to monitor and ensure that organisers are complying with relevant fireworks legislation
- Public firework display venues are usually public amenity spaces meaning that the risk of displays impacting on livestock and wildlife is minimised.
- Public firework displays attract larger numbers of people, reducing the need for other private displays and therefore the number of fireworks contributing to loud and high-pitched sounds levels.

To ensure responsible firework use at public displays and organised events, we would support that all public displays are required to be licensed by the relevant authority

**Recommendation 6**: All public displays and organised events using fireworks should be required to be licensed by the relevant authority.

**Recommendation 7**: Conditions of a public display or organised event license should stipulate that license holders are required to give advance notice of the display to all local residents with the option for local residents to appeal against the display or event.

**Recommendation 8**: Conditions of a public display or event license should stipulate that the license holder must pay due regard to how their firework display may impact on companion animals, wildlife, horses and livestock in the local area, as well as how they are going to dispose of debris and remnants of fireworks.

**Improved public awareness**

The government should improve public and event organiser awareness of the potential negative impact of fireworks on animal health and welfare by disseminating messaging through its communications channels, particularly around the traditional dates when fireworks are used eg. Bonfire Night (5 November), New Year, Chinese New Year, Diwali. This could be paired with a cross-stakeholder, collaborative approach with veterinary associations and animal welfare organisations, who continue to issue timely advice to animal owners on how to prepare their pets for firework displays and prevent or manage possible distress.

**Recommendation 9**: The government should improve public awareness of the potential negative impact of fireworks on animal health and welfare and how to mitigate these by disseminating messaging through its communications channels, particularly around the traditional dates when fireworks are used eg. Bonfire Night (5 November), New Year, Chinese New Year, Diwali.

**Recommendation 10**: Government guidance on the responsible use of fireworks should highlight the potential negative impact of fireworks on animal health and welfare, as well as...
the importance of safe disposal of the debris and remnants of fireworks, as a key area for event organisers to consider in their planning of displays eg. in the Department for Communities and Local Government document *Celebrating with bonfires and fireworks: a community guide to organising bonfires and fireworks*

**The role of the veterinary profession**

We would encourage owners and animal keepers who are concerned about potential fear or stress responses in their animals to consult with their veterinary surgeon, if possible well in advance of firework displays. Veterinary surgeons will be able to advise on evidence-based management and therapies for fear or stress responses to improve the welfare of the animals under their care.

Further, as credible and trusted leaders in animal health and welfare, veterinary associations and animal welfare organisations should continue to issue timely advice to animal owners on how to prepare their pets for firework displays and prevent or manage possible distress.

**Recommendation 11**: Owners and animal keepers who are concerned about potential fear or stress responses in their animals to consult with their veterinary surgeon, if possible well in advance of firework displays.

**Recommendation 12**: Veterinary surgeons should advise evidence-based management and therapies for fear responses to fireworks to improve the welfare of the animals under their care.

**Recommendation 13**: Veterinary associations and animal welfare organisations should continue to issue timely advice to animal owners on how to prepare their pets for firework displays and prevent or manage possible distress.