Equipment Colour Selection & Safety Rationale

The equipment colours selected for the 2026 event were not chosen arbitrarily. FlatOut Dogs conducted an in-depth literature review and applied established canine vision research to agility-specific environments at this venue. The goal of this review was to support safety, clarity, and confidence for the dog while also contributing to the continued evolution of equipment design within the sport.

Understanding Colour From the Dog's Perspective

Dogs do not perceive colour in the same way humans do. Canine vision is dichromatic, relying on two cone types sensitive primarily to blue and yellow wavelengths. Colours along the red–green spectrum are compressed into muted, similar tones, while blue remains highly distinct. White for instance, does not function as a 'colour' but instead provides strong luminance contrast, which is critical for defining edges and depth at speed.

Colour charts derived from vision research demonstrate that combinations such as blue–white and purple–white maintain both chromatic and luminance contrast from the dog's perspective, while many warm colours that appear bold to handlers blend significantly into the background when viewed by dogs.

Contact Equipment Colour Decisions

White contact zones were identified early in planning as a great choice based on their strong luminance contrast and consistent edge definition for dogs. While white contacts are not currently a common choice within the sport, FlatOut Dogs views thoughtful evolution of equipment design as both necessary and positive.

It is important to acknowledge that some resistance to colour changes is often handler-perceived rather than dog-driven. Research consistently shows that dogs adapt easily when contrast and clarity are preserved, even when visual changes appear significant to human eyes. The focus of this review was therefore placed on how dogs process contrast and boundaries, not on human familiarity.

White contact zones were ultimately unavailable for this event. Rather than defaulting to traditional options, alternative contact colour pairings were evaluated against the literature. Blue and purple body colours paired with opposing contact colours (blue with purple contacts, purple with blue contacts), combined with white lacquered aluminum contact frame edges, were selected as the most effective available configuration.

Scientific Basis for Colour Selection

When luminance is controlled, dogs rely on true chromatic cues, particularly along the blue–yellow axis. If brightness is not controlled, dogs may appear to distinguish colours while actually following luminance differences. For agility equipment, this means effective design must maximize both hue separation and clear brightness boundaries (Byosiere et al., 2018; Byosiere et al., 2019; Kasparson et al., 2013).

FlatOut Dogs reviewed peer-reviewed studies examining canine colour discrimination, surface interaction, and edge visibility. This review informed decisions across contact equipment, tunnel colour selection, and course layout considerations.

Tunnel Colour, Pitch, and Safety Considerations

Tunnel specifications were guided by findings summarized in an international tunnel safety study (DPF Leading Agility, 2024). Based on this work, 6-inch pitch tunnels with consistent colour spirals were selected to support predictable visual flow and reduce hesitation or misreads at speed.

Tunnel plates were intentionally excluded. Evidence from injury reports and safety analysis suggests that tunnel plates introduce unnecessary risk without providing meaningful stability benefits when modern tunnel bags are correctly filled and positioned.

Background Contrast & Course Design at This Venue

All competition at the event will take place on indoor turf surfaces. Equipment colours were therefore evaluated specifically against turf backgrounds under artificial lighting. Blue and purple provide strong contrast against turf from the dog's visual perspective, while warm colours such as orange and yellow tend to blend toward the background.

Additional design guidelines were considered for scenarios where tunnels may run beneath contact equipment. Colour contrast, orientation, and spacing were reviewed to reduce visual overlap and support clear obstacle commitment.

Conclusion

This review reflects FlatOut Dogs' ongoing commitment to evidence-informed decision-making and responsible progression within the sport of agility. Our approach is not centered on maintaining the status quo, nor on choosing options simply because they are familiar or comfortable. Instead, we are invested in continually evaluating how the sport can evolve in ways that better serve the dog, while still respecting the realities of competition environments.

While not every ideal option was available, the final equipment configuration represents a deliberate balance between scientific research, practical constraints, and real-world application. Each decision for the entire event, including those related to equipment colour, was made with the intent of improving clarity, confidence, and safety for the canine athlete.

FlatOut Dogs believes that meaningful growth in the sport comes from thoughtful review, openness to change, and a willingness to look beyond tradition when evidence supports doing so. By considering all aspects of the competitive experience, including something as fundamental as how dogs perceive colour and contrast, we aim to provide the best possible experience for competitors, handlers, and most importantly, the dogs themselves.

See the following pages for Colour Perception Reference Charts.

References

Byosiere, S. E., Espinosa, J., & Mills, D. S. (2018). Canine vision and perception: A review. Applied Animal Behaviour Science, 205, 1–8.

Byosiere, S. E., Chouinard, P. A., Howell, T. J., & Bennett, P. C. (2019). The effects of physical luminance on colour discrimination in dogs. Applied Animal Behaviour Science, 217, 35–42.

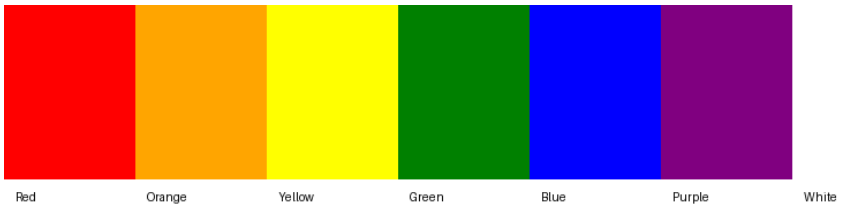
Kasparson, A. A., Badridze, J., & Maximov, V. V. (2013). Colour cues proved to be more informative for dogs than brightness. Proceedings of the Royal Society B, 280(1766), 20131356.

DPF Leading Agility. (2024). Tunnel safety: Executive summary of an international study. https://dpfleadingagility.wordpress.com/2024/05/13/tunnel-safety-executive-summary-of-an-international-study/

Colour Perception Reference Charts

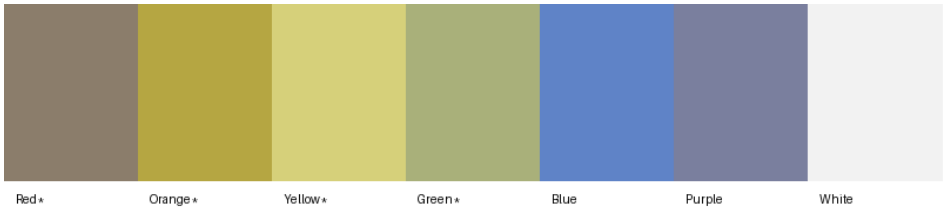
The following visual references are simplified illustrations intended to support the findings outlined in this document. They demonstrate how colour groupings that appear distinct to humans may compress or shift when viewed through canine vision, particularly on turf surfaces.

Human Colour View (Illustrative)



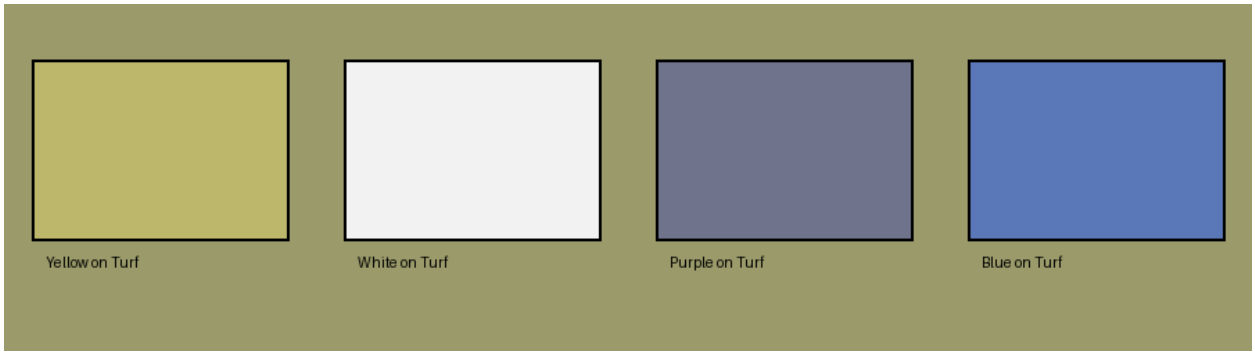
Dog Colour View (Illustrative)

*Warm colours compress toward similar yellow-brown tones for dogs; blue remains distinct.



Colour Blending on Green Turf (Dog Perspective)

This illustration accurately reflects canine visual compression of yellow tones against green turf. From the dog's perspective, yellow and turf occupy similar regions of the blue–yellow axis, resulting in minimal chromatic separation. This blending effect explains why yellow obstacles or contact zones may appear significantly less defined to dogs, despite appearing bright and distinct to human observers.



White maintains the strongest luminance contrast, while blue and purple remain visually distinct due to their separation from turf along the canine-visible spectrum. Yellow, by comparison, offers the weakest contrast and is the most sensitive to lighting conditions and background variation.