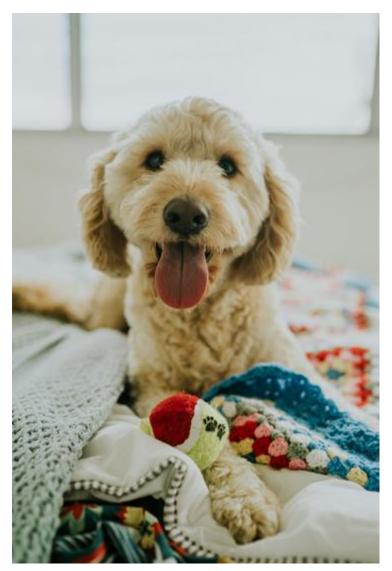


As dogs take on a magnified importance in the lives of their owners, consumer spending on dog toys is rapidly rising. Image Source: Unsplash user Isaac Moore

"Right here, Charlie! Look here, Charlie!" says Tamiko Manago.<sup>1</sup> Charlie is sitting on Santa's lap, wanting no part in "looking here." As Manago's pleas go ignored, the photographer shakes a string of jingle bells. This seasonal call finally catches Charlie's interest. He looks over, and the photographer captures the scene Manago and her partner, Eric Bouffard, have been hoping for. As for many families, the Santa picture will be featured on Manago and Bouffard's Christmas card. Unlike most other families, however, the creature sitting on Santa's lap isn't a small child, but a 5year-old terrier mix.

While getting your dog to pose for holiday pictures may have seemed outlandish a few years ago, it's becoming a common occurrence at regular Santa operations and specialized pet store events alike. The phenomenon casts into stark relief the changing role dogs are playing in the lives of their owners. No longer "just a dog," dogs have become <u>cherished family members</u>, occupying vital space in both special events and everyday life. This new level of importance is reflected not only in sentiment, but also in monetary terms: Dog toys are taking up an expanded portion of the family budget as owners seek to keep their pets happy, occupied, and loved. For example, approximately 70% of owners will buy their dogs Christmas presents, purchases that will make up a hefty portion of the \$1 billion spent on pet toys this year in the United States.<sup>2</sup>

"We see parents getting toys for their 5-year-old and also toys for their 5-year-old dog," says Sarah McKinney, spokeswoman for Wal-Mart. "They are definitely adding more to the basket." And dog toy sales aren't just keeping pace with children's toy sales—they're eclipsing them. As Jim Silver, president of Toys, Tots, Pets & More, explains, "Toys have held steady at about \$21 billion on average for the past decade, but the pet industry is growing like crazy." While the rapid expansion of the dog toy market is a boon for manufacturers and retailers, many owners aren't just looking for *any* dog toy—they're seeking out toys of the highest quality and greatest appeal. To keep up with these demands, spectrophotometric color measurement is playing an increasingly critical role in dog toy production.



Dogs have limited color vision, making some toys more practical than others. Image Source: Unsplash user Jay Wennington

## Does the Color of Dog Toys Matter?

Color matters to humans. Virtually every purchasing decision we make—from our clothes to our cars, our cough medicine to our cleaning products—is informed to some extent by color. Of course, it's no different for dog toys. Some owners stick to a favorite hue when making their selections: more and more, we're seeing lines of toys released in signature color groups, allowing customers to buy a range of items with identical coloration. Others have practicality in mind, picking colors that will make it easy for them to find the ball in the park, should their dog fail to retrieve it. However, while color may be used initially to attract the human customer, it also plays a role in how the dog interacts with the toy once it has been purchased.

Many people erroneously believe dogs can only see in black and white, thus rendering the color of a toy an irrelevant factor in the dog's level of interest. However, dogs *can* see color, just not in the way humans do. While humans have three types of cone cells, allowing us to identify red, yellow, blue, and green wavelengths, dogs have only two types, limiting their color vision to blue and yellow wavelengths. This is similar to people who have red-green color blindness: they can identify blue and yellow, yet can't accurately perceive other colors—red looks muddy, green and orange look yellowish, and purple appears to be blue. According to Stanley Coren, columnist for the American Kennel Club's *Family Dog*:

One amusing or odd fact is that the most popular colors for dog toys today are red or safety orange. However, [they] may appear as a very dark brownish gray or perhaps even a black [to the dog]. That means that bright red dog toy that is so visible to you may often be difficult for your dog to see. That means that when your own pet version of Lassie runs right past the toy that you tossed she may not be stubborn or stupid. It may be your fault for choosing a toy with a color that is hard to discriminate from the green grass of your lawn.<sup>3</sup>

As such, it's important to consider the practicality of dog toy colors when making your color selections. If a dog toy will be used outside in grassy areas, blue will be contrasted against the green grass, while a yellow toy will blend in. If you're creating a toy that will be used for water play, yellow will help the toy be visible against the background of the water. You can also take advantage of color contrasts; using multiple colors—such as blue and yellow or white and red—can make toys stand out from their environments. Keeping these factors in mind can help you develop toys that facilitate play and enjoyment for both the dog and the owner.



Spectrophotometric color measurement helps you create new products and monitor products in production. Image Source: Unsplash user Patrick Hendry

Measuring the Color of Dog Toys

Creating dog toy colors that appeal to owners and dogs alike requires thoughtful consideration of market trends, <u>color psychology</u>, and practicality. It also requires the use of spectrophotometric color measurement to develop your ideal formulations and ensure accurate coloration throughout your manufacturing process.

Spectrophotometers allow you to <u>capture and communicate objective color data</u> from virtually any material, giving you the information you need to create pigment and dye formulations and observe how pigments and dyes interact with host materials such as <u>plastics</u> and <u>fabrics</u>. This ensures that you can develop exactly the right materials and processes to produce your desired hue in a single product or across <u>a product line comprised of disparate materials</u>; your plush toys can match your tennis balls, your chewy bones can match your Frisbees. Once in production, spectrophotometers can be used to monitor each stage of the manufacturing process for correct coloration, allowing you to quickly identify and correct unwanted color variation. If you are using the same equipment to manufacture products of different colors, the data provided by your spectrophotometer helps you make more rapid color switchovers, which can be particularly useful to increase the efficiency of limited and seasonal production runs.

Spectrophotometers are particularly invaluable as consumers become more conscious of potential health hazards posed by dog toys. While there are currently "no specific regulatory requirements for pet toys other than general safety requirements for consumer products which would be overseen by the Consumer Products Safety Commission," some retailers, like Petsmart, are implementing their own safety testing procedures.<sup>4</sup> With owners and retailers becoming increasingly concerned with the materials to which dogs are exposed, Robert L. Vetere, president of the Pet Products Manufacturing Association, says that many dog toy manufacturers are "ramping up on quality control."<sup>5</sup> This quality control may require replacing old products with healthier alternatives and developing new color formulations, toy materials, and manufacturing processes to increase safety. Whether you are switching to organic materials, eco-friendly fabrics, <u>natural dyes</u>, or dye-free production, spectrophotometers play a critical role in this transition, ensuring that owners and their canine companions will find your new products appealing and functional.

## HunterLab Quality

HunterLab has been a pioneer in color measurement technologies for over 60 years. Today, we offer a comprehensive lineup of <u>portable</u>, <u>benchtop</u>, <u>and in-line spectrophotometers</u> designed to meet the diverse and exacting needs of our customers. Combined with our <u>customizable software</u> <u>packages</u>, HunterLab offers end-to-end color quality control to ensure you can develop and produce the best possible products. <u>Contact us</u> to learn more about our innovative technologies and let us help you select the right tools for your needs.

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