

by Croney Research Group

Dog welfare is more than just food, water, and good physical health. Several aspects of the environment can impact a dog's welfare. Dogs have a very different sensory experience from humans. Make sure your kennel is tailored to meet your dog's needs.

## **Temperature and Humidity**

It is not enough to protect dogs from extreme temperatures. Climate-controlled areas in your kennels can reduce stress and keep dogs comfortable.

- The size of enclosures and the number of dogs housed in them can affect ambient temperature.
- The range at which dogs can easily maintain their body temperature (thermoneutral zone) is from 68°F to 86°F.
- Maintain humidity between 30 and 70 percent. When temperatures are high, humidity should be lower. High humidity makes temperatures feel higher and increases the risk of heat-related illness.
- Dogs will have difficulty regulating their temperature in poorly ventilated, enclosed spaces.
- Help dogs cope with cold or heat stress. Provide shade/cover in outdoor spaces. Cooled and heated areas (when appropriate) and bedding can keep dogs comfortable. Make sure dogs can choose to leave heated or cooled areas as needed.

	Temperature (°F)															
	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	136								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										



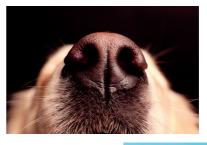
## **Temperature and Humidity**

- Panting is the main way that dogs reduce their body temperature. Panting is less effective when humidity is high. Short-nosed (brachycephalic) dogs are less able to release heat by panting.
- Consider a dog's coat thickness. Dogs with thick coats, like the Akita, will be more prone to overheating. Dogs with a thin coat, such as Chinese Crested, will be more prone to hypothermia.

## Ventilation, Odors, and Chemicals

Ventilation is the movement of air from outdoors to indoors, and the movement of air within an enclosed space. Proper ventilation can reduce humidity and helps keep temperatures stable. Good ventilation can also dilute airborne contaminants such as viruses, pollutants, and odors. Poorly ventilated spaces can increase the risk of disease.

- Dogs have a much more sensitive sense of smell than humans. Environmental odors can be more intense for dogs.
- Some cleaning agents can cause nasal irritation.
- Exposure to ammonia can be irritating to the nose and eyes. Dog urine is a primary source of ammonia in dog kennels. Avoid ammonia-based cleaners.
- Air quality assessments should be done at dog nose level.









- Test the environment routinely with ammonia test strips or a sensor. We recommend levels of 10ppm ensuring they do not exceed 25 ppm (parts per million).
- Provide dogs with items (such as bedding) that do not need to be cleaned daily. This maintains some familiar smells in the environment.
- Dogs may enjoy scent enrichment, such as lavender or chamomile.
- Kennels should have carbon monoxide detectors installed. Carbon monoxide poisoning can be fatal.