

Feeding and Hydration Management Considerations for Your Canine Athlete.

By Steve Ries – NATIVE® Performance Dog Food

Following are several management practices and tools to consider to maximize conditioning and genetic programs and reach optimum performance levels.

Reaching the winners circle involves a good deal of time, efforts and talents. Based on learnings from successful competitors, and bird hunting enthusiast from many different venues of canine performance events, several things are consistent:

- Begin with quality genetics with selection traits focused on the game they enjoy most
- Feed a quality dog food which provides maximum performance potential and quick recovery
- Gain a sound understanding of the importance of quality and quantity of hydration needed to succeed
- There are no shortcuts to be at the top of your game year after year!

Our canine athletes are made up of 80% water. To put that into perspective a 50 lb. animal has 5 gallons of water in his body. Every day a dog loses hydration through urine, feces, breathing and sweat.

The amount lost varies based on environment, exercise and diet. A dog can lose 6% of its body fluids (6 cups) before it will stop to drink. If a dog loses 10% (8 cups) of its body fluids it could become fatal.

Water is the single most important nutrient in terms of survivability. Dogs can survive for weeks without food using their own body fat and muscle for energy production. Water is vital for many important body parts and functions- including removing toxins for the body. Young and leaner animals have higher water content than older dogs or less desirable body conditions.

It is crucial to our dogs' performance that we understand the volume of water consumption and use when managing canine performance

animals.

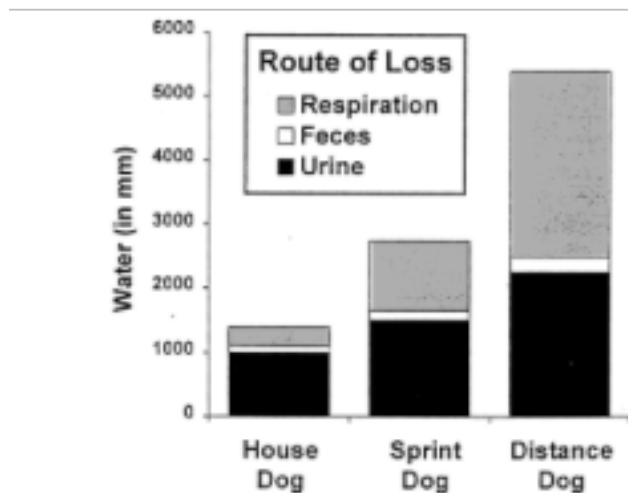


Figure 1. Amount and sources of daily water loss associated with exercise and environment.

- *Respiration water loss = 23% in inactive dog while increases to 40% with exercise.*
- *Feces water loss = 7% in inactive dog while decreases to 5% with exercise. (stress stools 80-90% water loss)*
- *Urine water loss = 70% in inactive dog while decreases to 55% with exercise.*

*Normal feces in chart above are calculated from normal stool. Stress stools created from exercise induced stress without empty digestive track can create 80-90% water loss in stool percent. Prevention of feeding animals 10-12 hours prior to exercise will support a sound hydration plan.

Signs of dehydration

Beginning Signs- Visibly tired, slowed pace/less animation, act more “warm”, excessive panting etc.

Intermediate Signs: Skin will become less elastic if you pinch the skin on their back, it will be slow to return to normal shape; Slow gum capillary refill- if you press firmly on their gums and release, the time it takes for the gum to refill with color will be slow; Gums and tongue become darker in color, Rectal temperature remains $> 105^{\circ} \text{F}$

Final Signs: Weak in the hind end and Wobbly and unsteady on feet

Cold temperatures can increase respiratory losses by 10-20 times. . . .
With each breath, dogs inhale very dry air, but exhale about 6% water.
The air temperature results in a difference of 2-4 quarts of water per

day.

A general rule of water consumption: Water consumed per day should = 2.5 – 3 cups per cup of dry dog food consumed. Force feeding water with dry food is a practice used by many performance handlers to achieve their hydration needs.

Always use a common source of water. . Change of water source is no different than food source and affects the body with variable results.

Hyper-hydration with a good protein and electrolyte supplement prior to exercise is a good practice in managing the levels of body fluids.

Nutrition Program

Dry dog food should be viewed as an essential tool to provide proper growth and development, longevity, healthy, stamina, endurance and recovery during training and conditioning programs.

Dog food provides the following nutrients needed to reach the goals listed above:

- Protein – Amino acids to build, repair and replace body proteins
- Carbohydrates – Energy source and body maintenance
- Fats – Energy, coats, structural functions and nervous system
- Vitamins – Growing, reproductive and immune system for all growth and life stages
- Minerals – Micro and macro forms

The term “you are what you eat” also applies to our canine performance animals! Different foods offer proteins from meats vs. grains, differing levels of ingredient digestibility, and different ways of reaction in the body. The feeding management practice we chose to provide can affect the results as much as the quality of food we select.

To maximize the metabolism and body fat composition or muscle structure, a consistent number of feedings per day must be established to help train the body to burn and not store nutrients. Two feedings per day is recommended. Food can be served post exercise with a 4 hour time period before the second feeding. Spreading out the feedings is most beneficial but not always available.

For Example: Feeding post exercise and before bed is better than feeding once per day. It is also better than feeding pre exercise (stress stools/dehydration) and again later in the day.

Feeding post exercise- once the body is cooled down and rested- will support rebuilding of muscle tissue used during exercise while offering benefits to recovery.

Dog foods are nothing more than a tool formulated for a large market share of the dog population. Finding the tool that works best with your program will often include supplementation of hydration and recovery products.

Best wishes to a successful season in pleasure, testing or trialing your canine athletes and companion animals.