Feeding the working and sporting dog
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Training, exercise and correct nutrition are essential to ensure your working dog’s optimal performance. The energy necessary for endurance is derived from predominantly aerobic metabolism, which requires a good level of quality dietary fat. There is a shift towards anaerobic metabolism when then dog is sprinting, and this is supported by the carbohydrate in the diet. The provision of the correct nutrient balance is therefore important.

Dogs will perform better when fed a balanced, digestible and nutritionally valuable diet. Products that are formulated to provide an optimal energy intake and keep the muscles working and the blood flowing efficiently may minimise fatigue and improve stamina.

Working lines are typically strong, agile and enduring. However, your dog may be at increased risks of injury and stress as a result of physically demanding activities. Proper nutrition helps the digestive system work efficiently, allowing the immune system to focus on its primary protective role, without being waylaid by ingredients that hinder the metabolism, such as poorly digested proteins that are more likely to provoke allergic responses, and those that upset the digestion or require a great deal of work in order to be properly assimilated. Excessive faecal bulk can slow down the dog.

By promoting healthy growth through an appropriate diet from puppy-hood, the adult working dog will develop strong bones and joints, and a well-muscled frame. Well-developed neck and shoulder muscles allow for a greater lung capacity, better endurance and the power necessary for carrying out his duties or sports to his best capability. Injury may not be preventable by sensible feeding, but incidences may be reduced or symptoms alleviated by the provision of optimal nutrition. A strong and healthy body which is protected by an equally strong and healthy immune system has greater healing capacity too.

The working dog will benefit from nutrients that help to support the additional stresses imposed upon the bodily systems. The immune, cardiovascular and musculo-skeletal systems are under particular stress during any period of prolonged physical exertion. Psychological health is just as important as physiological health, so the nervous system may also benefit from nutritional support to help to promote alertness and improve concentration levels.

There are a number of ways in which appropriate feeding can assist in promoting good health. The timing and frequency of feeding is important. This
ensures that your dog has sufficient energy at times when he needs it. The avoidance of heavy meals immediately before or after exercise may reduce the risk of bloating.

The diet must not only provide fuel for energy, but optimal levels of the essential nutrients that the body requires to function efficiently. Working and sporting dogs require more calories than those utilised by a family pet, with their needs depending on:

• The type, duration, frequency and intensity of exercise.

• Environmental factors such as terrain, temperature and humidity.

• Individual variants including temperament, neuter status and age.

Energy dense feeds mean that increased nutritional demands can be met without having to feed large volumes of food that take longer to digest and metabolise. Fat is an especially important nutrient in the working or sporting dog’s diet because:

• It is a concentrated source of fuel, with one gram supplying more than double the calories of one gram of protein or carbohydrate.

• A fat-dense diet stimulates mitochondrial growth and improves aerobic work capacity.

• Higher fat diets have a glycogen sparing effect, which is important because glycogen depletion causes fatigue.

Protein of a high biological value is necessary for tissue growth and replacement. Studies have suggested that higher protein diets may reduce susceptibility to injury [Reynolds, 1995]. However, excessive protein has little benefit since it is a less efficient source of energy than fat or carbohydrate and cannot be stored. Chicken is very easily broken down into the constituent amino acids necessary to support the structural and functional demands of the body, as is egg. Both are included in the Arden Grange recipes marketed for active dogs.

The Arden Grange Prestige rich in fresh chicken is a calorie dense food, and is ideal for periods when high levels of endurance/stamina are needed. This concentrated diet enables the provision of the extra calories needed during periods of heavy work without overloading the digestion.
The Arden Grange Performance with fresh chicken & rice is suitable for most intermediate activities. Canicross and agility are classified as such [Case et al, 2011], but as mentioned, energy requirements are governed by many factors and can vary from 2.5 x RER (resting energy requirement). Performance is formulated with quercetin, green tea and grape seed extract, which have antioxidant properties and may help protect against free radical damage. Although grapes are toxic to dogs, grape seed extract is harmless. The toxic substance in grapes is water soluble and thus found in the flesh/skin of the grape and not the seed. Performance also includes L-carnitine – which aids the metabolism of fat, and taurine to support the heart function.

All of the Arden Grange diets have supportive elements which may be of benefit to the working, sporting or naturally very active dog including:-

• Krill – a very good source of the omega-3 fatty acids EPA and DHA which have anti-inflammatory properties. Omega-3s are polyunsaturated fats, and their inclusion is very significant to the owners/handlers of gundogs and sniffer dogs because studies have suggested that foods containing only saturated fats may impair the ability to detect low concentrations of odours [Altom et al, 2003].

• MSM – a form of organic sulphur which also has anti-inflammatory properties and may improve mental alertness by increasing the availability of oxygen to the body and brain.

• Glucosamine and chondroitin – to support the joints.

• Cranberries – for their antioxidant properties and for urinary tract support.

• Prebiotics FOS & MOS and nucleotides – to support the digestive and immune function.

Water is a critical nutrient and used as a solvent, transport medium and lubricant. Soaking dry food for about half an hour prior to serving can help to increase the fluid intake. If the body’s hydration status is not maintained, then athletic performance is quickly impaired.

It is an absolute must to ensure that nutritionally valuable ingredients are incorporated into the working or sporting dog’s diet, and that these are highly digestible in order for them to be easily utilised. Every dog is an individual, with his or her own unique digestion and rate of metabolism. What is the best diet for one may be completely inappropriate for another. It is important to observe
your dog and establish what kind of food suits through close monitoring of weight, stool production, general bodily condition, skin and coat condition, overall demeanour, energy level and appetite.

Without doubt, a working dog is a happy one. It is only when a dog bred to work is insufficiently exercised and stimulated that he/she becomes bored. This can lead to frustration and destructiveness, so ensuring that your working dog leads a full and active life will go a long way in promoting good health and longevity.

As a responsible and ethical company, Arden Grange fully appreciates the caution that must be taken when discussing the potential benefits of nutritional supplements. It is against the law to make medical claims. Whilst these ingredients are safe and natural, and may be beneficial to some of the cats and dogs fed on Arden Grange, we must highlight that their inclusion is not a substitute for veterinary intervention in the case of a sick animal.

References

