

Middle California Region USPC

Preparing For Your C-3 Test

Nutrition

For the C-3 test, The USPC C-3 Standard requires that the candidate:

- **List six classes of nutrients needed by mount and primary feeds that provide them.**
- **For your area, know availability, cost, and origin of hay and grain needed to meet nutritional requirements of own mount, stabled and at grass.**

Some questions to consider for the C-3 test:

- What do you feed your horse? Why?
- What common feeds provide fat in the horse's diet?
- Where do horses get their vitamin D?
- Where do you buy your feed?
- Where is your hay grown?
- What is the cost for your grain and your hay?
- What damage can happen if your horse is fed too much protein?
- What type of feed has the most energy per pound?
- What nutrient does not have to be broken down or changed by the horse's body in order to be used?
- Cellulose, starch and sugars are types of what?
- What nutrients are the horse's primary sources of energy?
- Why are corn and oats called concentrates?
- What nutrient is the source of amino acids used by the horse?

Classes of nutrients

Protein

Protein is composed of amino acids, also known as the building blocks of the body. Protein is necessary for development and repair of the tissues of the horse's body such as blood, bone and muscle. High quality protein has all amino acids while low quality protein often have low levels of one or more amino acid.

Sources of protein: cereal grains, such as oats, corn, barley; legume hays such as alfalfa; protein supplements such as soybean meal.

Carbohydrate

Carbohydrates are the main energy sources for the horse. They are the easiest for the horse to metabolize to create energy and also a cheaper source of energy than fat or protein.

Sources of carbohydrate: cereal grains such as oats and corn

Fat

Fats also provide energy to the horse and can help to put weight on a thin horse or improve a poor coat or skin condition.

Sources of fat: Liquid oil such as corn oil, seed meals such as linseed meal, grains such as corn have a higher content of fat.

Water

The horse must have water available at all times. Water keeps the horse's digestive system working properly, helps to keep him cool, keeps his cells functioning correctly, is present in saliva, sweat, urine, tears and manure and has many other functions.

Sources of water: Water in a bucket or trough, lush grass

Vitamins

Vitamins are necessary for the horse's metabolism. They are active in functions such as reproduction, muscle function, blood clotting and development of connective tissue including bone, tendons, ligaments, teeth and gums. There are two types of vitamins, fat soluble and water soluble. The fat soluble vitamins are A, D, E and K. The water soluble are C and B.

Sources of vitamins: Water soluble vitamins are produced in the large intestine of the horse.

Vitamins are also present in good quality hay and grain. The horse gets adequate vitamin D from the effect of the sun on his skin. Vitamins A, E and K are present in green, leafy plant sources, such as forage. You can also feed your horse commercially prepared vitamin supplements.

Minerals

Minerals are necessary for many functions of the horse's body, such as bone growth, enzyme systems, tissue-water pressure, bone, blood and hair formation. Important minerals include calcium, phosphorus, potassium, sodium, chloride, Iron, Iodine and magnesium.

Sources of minerals: Grass or legume hay, legume is a better source of minerals, especially calcium. Soils influence the mineral content of the hay or forage. You can supplement minerals with commercial supplements and mineral block.