

Selenium in Animal Feed

Dec 22, 2017

Selenium in Animal Feed

Selenium (Se) is an important antioxidant mineral in animal feed, and is known to contribute to the reproduction system. In many cases, Selenium is deficient in animal feed. Testing feed for Selenium and making balanced supplementation is required.

Selenium deficiency can cause animal's weakness, heart failure, abortions and even death are correlated with Selenium deficiency. When animals consume more Selenium than needed, it causes toxic reactions (the window between deficiencies and excess is very narrow). Selenium concentrations should be often checked in Cattle, Sheep, Goats, Horses, Swine and Poultry. Cattle, Swine and poultry should consume 0.3 – 3.0 ppm (mg per Kg) head/day, Sheep and Goats should consume up to 1ppm and Horses sufficient feed can have 0.1 ppm Se per head per day.

Injections are commonly used in Livestock to supplement Se. Others, make Salt-Mineral supplement mixes, or Feed supplemented with Se to increase frequent intake. Another common way is Se fertilizer to increase Se concentration in Forage- an organic source of Se.

High concentrations of Selenium in Canadian soils are found in Southern Prairies and Ontario. Selenium is naturally produced in Mining regions.

Selenium is an essential nutrient and is used in commercial food. Selenium content in food results of the soil where crops are produced and animals are raised. High level of Se is found in Brazil nuts, fresh fish and Shellfish, various Bread types, Grain and Cereals.

Selenium can be measured by many techniques. ICP (Inductively Coupled Plasma) is one of the most commonly used. Solid or liquid samples can be analyzed. It is highly sensitive and can determine concentrations of trace to major elements. Selenium testing will be available in Central Testing Laboratory Ltd soon.